P. Lawrinson, J. Copeland & D. Indig

The Brief Treatment Outcome Measure: Opioid Maintenance Pharmacotherapy (BTOM) Manual

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THE BRIEF TREATMENT OUTCOME MEASURE: OPIOID MAINTENANCE PHARMACOTHERAPY (BTOM)

MANUAL

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EXECUTIVE SUMMARY

A brief, multidimensional instrument has been designed to monitor treatment outcomes for clients receiving opioid maintenance pharmacotherapy and for use in treatment evaluation research. The Brief Treatment Outcome Measure (BTOM) standardises data collection from opioid maintenance pharmacotherapy services, providing data on service utilisation, client population profiles, treatment needs, the types of treatment delivered and outcomes achieved.

Treatment outcome is measured by scales developed or adapted from other instruments across the domains of dependence, blood borne virus exposure risk, drug use, health, psychological functioning and social functioning.

The BTOM is typically administered at the commencement of treatment (or intervention, in the case of a research study) and thereafter 3 monthly, in conjunction with case management reviews. It takes on average 15 minutes to administer and can be easily scored by the clinician or researcher. The domains included within the BTOM can act as a checklist of points to be covered in a case management review session.

Results from the 30-month clinical trial and a psychometric evaluation study indicate that the BTOM has good reliability, acceptable validity and is capable of measuring change in treatment outcome. The clients in the clinical trial showed statistically significant improvement in all of the treatment outcome domains. Findings from a survey of clinicians using the BTOM indicate that clinicians approve of the BTOM content and find the instrument to be clinically useful.

ACKNOWLEDGEMENTS

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The authors would like to acknowledge the Drug Programs Bureau (DPB), NSW Health, whose staff shared in the coordination of this project; the members of the Monitoring and Outcomes Project Committee; the Content and Implementation Advisory Group, comprising National Drug and Alcohol Research Centre (NDARC) research staff, DPB staff and clinicians from the public, non-government organisation and private alcohol and other drug sectors and clinicians and clients from the agencies participating in the trialling of the BTOM.

1.0 Introduction

The Brief Treatment Outcome Measure (BTOM) was developed for the routine measurement of treatment outcome for clients receiving opioid maintenance pharmacotherapy (OMP) services and for use in treatment evaluation research.

It is a brief, multi-dimensional instrument for the standardised assessment of treatment outcomes of clients receiving methadone/buprenorphine maintenance treatment and for monitoring changing patterns of service delivery. It is intended that the BTOM be used in routine clinical practice in conjunction with client case management. It will investigate the characteristics of persons entering treatment, capture the disability of the client population, document treatment outcomes and inform the planning and development of treatment services. Key considerations in the design of the BTOM were that it place minimal time demands on clinical staff and clients, be acceptable and easy to administer and interpret and have good psychometric properties.

The BTOM has been designed to be administered to clients via clinical interview upon the commencement of their treatment and every 3 months thereafter whilst treatment continues. As a case management tool, it is anticipated that the BTOM will assist the clinician and client to "chart" the client's progress through treatment. The content domains of the BTOM can act as a checklist of points to be covered in a case management review session. It is a means of formalising the monitoring process and serves as a stimulus for deeper exploration of the client's needs, and a means of providing feedback to clients via the scoring system.

At the agency and jurisdictional level the BTOM provides a comparable dataset on the drug and alcohol services available, the utilisation of these services, client population profiles, treatment needs, the types of treatment delivered and outcomes achieved. This information serves to facilitate increased awareness of, and improved responsiveness to, the sector's needs by the government, treatment and other health agencies, and the broader community.

1.1 Background

The NSW Health Department in partnership with the National Drug and Alcohol Research Centre (NDARC) established the Monitoring and Outcomes Project (MOP). The major goals of this project were to establish a state-wide treatment data set, and following this, to introduce the regular assessment of treatment outcomes using a brief outcome measure.

Collection of the NSW Minimum Data Set for Clients of Alcohol and Other Drug Treatment Services (NSW MDS) commenced on July 1 2000 (NSW Health Department,

2002). The data collection includes a nationally agreed set of data items, comprising the National Minimum Data Set for Clients of Alcohol and Other Drug Treatment Services (AIHW, 2002) and additional items to describe the treatment services being provided.

The next phase of this project was the addition of an outcomes module to complement the data collection. This is consistent with the format of the NSW MDS. A review of the existing treatment outcome measures (Teeson et al., 2000) and a review of the literature on routine outcomes monitoring and the predictors of outcome (Copeland et al., 2000) have been written to complement the background work for this project.

Additionally, the 1999 NSW Drug Summit emphasised the need to standardise the measurement of treatment outcomes across alcohol and other drug treatment services in NSW (NSW Drug Summit, 1999), particularly in opioid maintenance pharmacotherapy services where substantial public funding is directed. It is acknowledged that many drug and alcohol agencies have used a variety of methods to measure the effectiveness of the treatments they provide. However, for meaningful comparisons to be made across the treatment sector, a standardised outcome monitoring system must be developed and implemented, one that takes into account differences in client characteristics, treatment settings and service provision. The BTOM is designed to service this need.

1.2 Overview

The BTOM has the following properties.

1. It incorporates the NSW MDS for Clients of Alcohol and Other Drug Treatment Services. The content of the NSW MDS (and consequently the BTOM) is reviewed by the MOP Committee and updated versions are released annually on July 1. It is important to ensure that the current version of the BTOM is being used.

2. Treatment outcome is measured by scales developed or adapted from other instruments across the domains of drug dependence, blood borne virus exposure risk, drug use, health, psychological functioning and social functioning.

3. Additional items are collected, particularly those that relate to service provision.

4. It is brief, easy to administer and can be easily scored.

5. It's scales have good reliability and acceptable validity.

1.3 Development of the BTOM

The BTOM was systematically developed over 6 phases:

1. A review of available measures of treatment outcome revealed over 300 instruments that were examined as possible outcome measures. While the Opioid Treatment Index (Darke et al., 1992), developed in Australia met many of the requirements set by the reviewers, it was recommended that it be revised and shortened for use as a routine outcome assessment tool suitable for use across the alcohol and other drugs field with a range of substance use disorders (Teeson et al., 2000).

2. A content and implementation advisory group, comprising representatives from the National Drug and Alcohol Research Centre, the Drug Programs Bureau, the NSW Health Department and senior government, non-government and private alcohol and other drug treatment sector service providers was established to guide the development of the BTOM.

3. Opioid maintenance pharmacotherapy treatment (OMP) clients were recruited and interviewed from public and private methadone clinics in the South East Sydney Area Health Service to evaluate the psychometric properties of the BTOM.

4. A 30-month clinical trial of the BTOM was conducted at selected rural and metropolitan Area Health Service and private methadone clinics in NSW. Data obtained from this sample were utilised to assist in further evaluation of the psychometric properties of the BTOM and aid in refining the instrument.

5. Clinicians who had participated in the clinical trial were approached to complete a survey designed to elicit quantitative and qualitative feedback on their experience of using the BTOM. The survey results were used to further refine the content of the BTOM, inform the development of guidelines for the use of the instrument and identify business processes necessary for the successful integration of the BTOM into routine clinical practice.

6. Final version development in the light of above and revisions of NSW MDS.

2.0 Structure of the BTOM

The BTOM comprises 7 sections:

A. Demographic Information
B. Drug Use and Drug Use Related Behaviour
C. Health and Psychological Functioning
D. Social Functioning
E. Treatment Specific Information
F. Commencement of Treatment Information
G. Cessation of Treatment Information

Sections A, F, G items and some items in Section B are NSW MDS items. The aim of these questions is to gather information about the client and their treatment history in a manner that is consistent with the state-wide collection. If required, guidelines for the use of these questions can be found in the "New South Wales Drug Treatment Data Dictionary" (NSW Health Department, 2002).

The BTOM contains six scales, which can provide a score for each client:

- Severity of Dependence Scale (used for the drug that has led the client to seek treatment) – 5 items (Gossop et al., 1995)
- Blood borne virus exposure risk (due to injecting practices) – 7 items
- Occasions of drug use (in the last 30 days) – 7 items
- Number of categories of drugs used by the client – 7 items
- Health – 1 item
- Psychological well being – 8 items
- Social functioning – 6 items

The scale scores are the principle means of assessing changes in treatment outcome and can be related to the other service delivery and client characteristic variables in the instrument. A Scale Score Summary Sheet and an explanation of the scales and how to calculate scores can be found in Appendix 4.

In addition to the NSW MDS items and the scales there are 5 additional questions in Sections B, C and D. Section E consists of 8 questions relating to the treatment that the client is or will be receiving.

3.0 Administering the BTOM

3.1 General

The BTOM is an interviewer administered questionnaire that typically takes 15 minutes to complete. It is suitable for use with English speaking clients entering into OMP, either for the first time or after at least a one month absence from OMP. "Face-to-face" administration of the BTOM is recommended. Where this is not feasible, such as following up clients who have left treatment, a telephone interview may be conducted. It has been demonstrated that client self-administration of the BTOM yields poor reliability and hence is not recommended. The BTOM has primarily been developed to be used by clinicians as an outcome monitoring instrument and for treatment outcome research. Completion times may vary if the BTOM is utilised as a part of assessment or case management activities where other measures, additional items or further discussion may be required. It is recommended that such additions are made at the end of the relevant section of the questionnaire.

It is essential that staff and research personnel administering the BTOM be appropriately trained and supervised in its use. Both the accuracy of the information obtained from clients and successful integration into routine clinical practice depend upon the administrator's familiarity with the BTOM's content and purpose. A "Brief Treatment Outcome Measure (BTOM): Administration and Procedures Manual" (NSW Health Department 2003) has been produced to assist in the administration of the questionnaire.

Clients should be given an explanation of how the BTOM may assist them with objective assessment of their treatment progress and assured that the information will be treated confidentially and not be used to deny or limit their treatment. It is helpful to explain that the BTOM only takes fifteen minutes to complete once every three months. An opportunity should be given for the clients to ask questions and raise concerns about the interview.

Self-reported data on drug use related behaviour has been shown to be consistent with urine analysis and collateral interviews (Kilpatrick et al., 2000). Accuracy can be improved when the measures are standardised, administrators have been trained to use the instruments consistently and when clients are motivated to cooperate with the administrator (Litten & Allen, 1992; cited in Center for Substance Abuse Treatment, 1995).

3.2 Timing

Most of the BTOM questions address client behaviour or perceptions in the preceeding 3 months. This time interval was chosen for outcome measurement in order to be

representative of a client's longer term drug use related behaviour whilst, at the same time, maximising the accuracy of client recall (Copeland et al., 2000) .

The BTOM is typically administered at the commencement of treatment (or intervention, in the case of a research study) and thereafter 3 monthly, in conjunction with case management reviews.

The "baseline" BTOM interview can be included as part of the assessment or admission process or can be conducted during the induction phase of treatment. It is recommended that the administration of the BTOM be included on either the admission or induction checklist. Admission is the assessment and data collection process undertaken prior to the commencement of treatment. Induction is the phase of treatment from the first dose of methadone or buprenorphine until day seven.

The review BTOMs, conducted as part of the case management review process, should occur every 90 days. The time interval may vary according to the needs identified by the agency, other key stakeholders or researchers, just so long as 90 days remains the minimum time interval between interviews.

3.3 BTOM Administration Summary Protocol

(Please refer to Table 3.1)

Commencement of Treatment

- Front page, Sections A – D
- Section E (Questions 37-39)
- Section F

3 Monthly Review Interviews

To be administered every 90 days + / - 30 days (ie. 3, 6, 9, 12 months) in conjunction with the case management review meeting, as follows:

- Front page, Sections A – D
- Section E (all)

Cessation of Treatment

- Section G

Key Points

- All questions require an answer. Neither skip questions nor leave blanks sections of the questionnaire. If the client refuses to answer a question, indicate this on the questionnaire.
- All answers should be based on the client's response, not the clinician's guess or assumption.

- Some questions are preceded by a preamble, printed in bold, which is worded to aid the client in interpreting the question. It is important that these are read to the client.
- It is likely that some agencies may develop their own business rules relating to the data collection. If this occurs, the key requirement is consistency across all data collected within the agency.
- A number of public sector and commercially available software platforms incorporate the BTOM. Most of these platforms are capable of scoring the instrument and generating the BTOM Scores Summary Sheet (Appendix 4).

Table 3.1 Timing of data collection for clients receiving opioid maintenance pharmacotherapy.

<table>
<tr>
<th>Commencement of Treatment & at 3 Monthly Intervals</th>
<th>Commencement of Treatment Only</th>
</tr>
<tr>
<td rowspan="2">Front page
Agency code / Agency location / PSB code / Client code
Date of interview
Agency name / Area Health Service name / Interviewer name
Commencement of treatment date
Interview type (i.e. baseline, 3, 6, etc months)
Length of interview

Demographic Information (Section A)
Sex/ /Date of birth
Indigenous status / Country of birth / Preferred language
Principal source of income / Type of accommodation
Living arrangement

Drug Use & Related Behaviour (Section B)
Principal drug of concern
Method of use for principal drug of concern
Severity of Dependence Scale (Question 11a.-e.)
Other drugs of concern
Injecting drug use
Sharing needle/syringe after someone else had used it
Sharing needle/syringe with someone else after client had used it
Sharing other injecting equipment
No. of overdoses
Quantity and frequency of alcohol and other drug use (Questions 18-24)

Health & Psychological Functioning (Section C)
Client perception of own health
Days in hospital
Psychiatric medication
Psychological health scale (Question 28a-h)

Social Functioning (Section D)
Social functioning scale (Questions 29-34)
No. of arrests
Involvement with child protection services

Opioid Maintenance Pharmacotherapy (Section E)
Prescription source of pharmacotherapy
Pharmacotherapy dosing location
Pharmacotherapy case manager
Pharmacotherapy type*
Current pharmacotherapy dose*
Client perception of current pharmacotherapy dose*
Stability of pharmacotherapy dose*
Provision of other services*
Client satisfaction with treatment*
* Not to be completed if dosing has not commenced

Note: although responses to some of the will not change upon review, it is requested that all items be completed.</td>
<td>Section F
Treatment delivery setting
Main treatment provided
Source of referral to treatment
Previous treatment</td>
</tr>
<tr>
<td>Cessation of Treatment Only

Section G
Cessation of treatment date
Reason for cessation of treatment
Referral to another service
Other services provided</td>
</tr>
</table>

(in italics: NSW Minimum Data Set items)

3.4 Section A. Demographic Information

This section contains NSW MDS demographic items which are required for analysing patterns of service utilisation by different population sub-groups and their influence on treatment outcome.

3.5 Section B. Drug Use and Drug Use Related Behaviour

3.5.1 Items 9, 10 & 12.

These questions are NSW MDS items and need only be collected at the "baseline" interview. Detailed guidelines on the use of the questions can be found in, "2002 – 2003 NSW Minimum Dataset for Alcohol and Other Drug Treatment Services: Data Dictionary and Collection Guidelines." (NSW Health Department, 2002)

Item 9. What drug has led you to seek treatment from this service?

Given that the client is entering into OMP, either heroin, methadone (street or diverted methadone) or another opioid must be given as the answer to this question. It is important to be clear with the client that methadone or buprenorphine used as the maintenance pharmacotherapy is not an appropriate answer to this question.

Item 12. What other drugs or alcohol have caused you concern?

This question relates to drugs, other than the drug that has led the client to seek this episode of OMP, that are causing concern to the client. It is important to emphasise that this question relates to concern with the use, not simply the use of other drugs.

3.5.2 Item 11. Severity of Dependence

When comparing treatment outcome across treatment settings and modalities it is important to take into account any differences in the characteristics of client populations. The extent to which a client is dependent upon illicit opioids is one such characteristic.

The Severity of Dependence Scale (SDS) is a 5 item measure of the psychological components of dependence which has demonstrated good psychometric properties. It is suitable for use with a variety of drug classes (Gossop et al., 1995).

3.5.3 Items 13 – 17. Injecting Drug Behaviour

It is well established that injecting drug users that share needles, syringes and other injecting drug equipment are at risk of contracting and transmitting blood borne viruses such as HIV and Hepatitis B & C (MacDonald et al., 1996; Crofts & Aitken, 1997; Thorpe et al., 2002). Injecting drug use also includes intra-muscular and subcutaneous forms of injection. The level of blood borne virus exposure risk (BBVER) is measured in the BTOM as the BBVER Scale. The questions in this section are directed towards the types of injecting drug use behaviour that put the client at risk of either contracting, or transmitting blood borne viruses. Interviewers should be familiar with how these

behaviours may be associated with BBV transmission risk. This may assist clients in understanding the meaning of the question and improve the validity of their responses. Some clients may not consider the sharing of injecting equipment with their sexual partner as "true sharing" (Darke et al., 1991). Hence, it is important to clarify that for items 14 and 16 that "sharing" includes the client's sexual partner.

The BBVER Scale is derived from items 14 and 16. See Appendix 4 for the scoring protocol.

Items in the BBVER scale:

Item 14. *How many times in the last 3 months did you use a needle and syringe after someone else had already used it (including your sex partner and even if it was cleaned)?*

When a used needle/syringe is reused any residual traces of blood can be introduced directly into the recipient's bloodstream. The risk of this occurring may not be markedly reduced even when the needle/syringe is rinsed between injecting episodes, using recommended cleaning techniques (Bodsworth et al., 1994).

Item 16. *Please tell me if you have shared any of the following injecting equipment with anyone else in the last 3 months* (Thorpe et al., 2002).

Spoon: Traces of one person's blood may be left on the spoon, which subsequently could be mixed in with the drug and injected into another person's bloodstream.
Water: One person may have used the water to rinse out the syringe or to mix the drug. Traces of their blood may be present in the water if it is subsequently used by another person.
Filter: Traces of one person's blood may be left on the filter, which when reused could be injected into another person's bloodstream.
Tourniquet: Traces of one person's blood may be left on the tourniquet. Another person may contact the blood on their fingers whilst handling the tourniquet and subsequently transfer it to their drug mix or injecting site.
Drug solution/mix: Traces of one person's blood may have contaminated the drug mix if they drew more fluid into the syringe after their initial injection.
Swabs: Any person's blood left on a swab may be transferred to another person's injecting site.

3.5.4 Items 18 – 24. Quantity and Frequency of Alcohol and Drug Use.

The central treatment outcome measure for alcohol and other drug treatment services is the client's use of alcohol and other drugs (Klee et al, 1990). This information is also important in determining the types of treatment that may be required.

The accuracy and veracity of client responses to these seven items depend upon the client's recall of past events and the level of trust established between client and interviewer. In order to minimise errors in reporting that may result from the client's

inability to recall events that occurred up to 3 months ago, a one month reporting period is used for these questions**.** Charts 2 and 3 can be provided to the client to assist in their recall over this period. (See Appendix 5)

All of the 7 items in this section must be answered, irrespective of whether the client considers the use of these substances to be of concern. These items should be considered independent of the answers given for items 9 and 12.

In part (a) of each question the client is asked to provide an estimate of the number of days in the last month that they used any of the stated drugs. The total number of days in the "last month" is standardised at 30 days. If the client has not used a particular drug in the last month, zero days should be recorded, and the client directed to the next question. Slang terms are provided for the drugs and routes of administration in this section. This may aid understanding and enhance rapport with the client.

Part (b) of each question is designed to quantify the amount of each drug used, **on a typical day of use.** With the exception of question 18(b), where a Standard Drinks Chart (Chart 3) can assist the client in providing a relatively accurate estimate of their alcohol consumption, obtaining standardised information on the amounts of other drugs consumed is not possible. Doses administered, routes of administration and drug purity vary widely. This instrument aims to measure relative changes in drug use over time rather than providing an accurate measure of the amount of drug consumed. The client is also asked to indicate, by circling the most appropriate response, their usual method of administration for each drug. This may aid in quantification and provides information on patterns of drug use and their associated harms.

Two scales for outcome measurement can be derived from this section:

The Occasions of Drug Use Scale (ODUS) can be calculated for each class of drugs by multiplying the number of days of use (part a) by the number of units of use on a typical day (part b), giving the number of occasions of drug use in the last month for each of the 7 classes of drugs. Refer to Appendix 4.

The Polydrug Use Scale is the sum of different classes of drugs taken by the client in the last month.

3.6 Section C. Health and Psychological Functioning

An 8-item psychological functioning scale was adapted from the Depressive Symptom, General Mental Distress and Internal Mental Distress Indices of the Global Appraisal of Individual Needs (Dennis et al., 1993).

The relationship between opioid use and psychiatric pathology is well established. Clients suffering mood and anxiety disorders who demonstrate significant distress have been shown to have poorer outcomes than other clients. (eds. Ward et al., 1998) These data also indicate, however, that OMP can significantly reduce levels of psychological distress (Rounsaville et al., 1982) particularly in the first four months of treatment (Dorus & Senay, 1980). The current state of a client's psychological health is therefore likely to be a factor affecting their treatment outcome. This and other factors affecting treatment outcome need to be characterized if meaningful comparisons are to be made between treatment types and population sub-groups.

The 8 sub-items in this question are each answered by circling either "YES" or "NO". The Psychological Functioning (PFS) Scale score has been derived from these questions. Refer to Appendix 4. The preamble to this question, printed in bold, indicates that the client is asked to state whether they have experienced the following as "significant" problems. It is important to make it clear to the client that in the context of this question, a "significant problem" is defined as one that persists for two or more weeks in the past 3 months, keeps coming back, prevents the person from meeting their responsibilities or makes them feel as if they cannot go on.

Many of the sub-items in this question contain lists of feelings or instances where the client is asked whether they have experienced these as significant problems. For example, 28.(a) "Feeling very trapped, lonely, sad, blue, depressed or hopeless about the future". A "YES" answer should be given if the client has experienced any one of these as a "significant problem".

3.7 Section D. Social Functioning

A 6-item social functioning scale was adapted from the 15-item social functioning scale from the Opiate Treatment Index (Darke et al., 1992).

Measures of personal and social well-being have been shown to be reliable predictors of treatment outcome and have been identified as an important component of multi-dimensional instruments that measure treatment outcomes for drug and alcohol clients (eds. Ward et al., 1998). The types of relationships, responsibilities and support within a person's living situation are significant to their well-being and may influence the outcome of their treatment. These factors may be relevant when deciding between different treatment and support options for the client.

The questions in this section are designed to measure the client's levels of financial hardship; conflict in relationships with spouses/partners, other relatives and employers/school staff and students; time spent living with a drug user and time spent with non-drug using friends; arrests as a measure of criminal activity and involvement with child protection services over the past 3 months

The Social Functioning Scale (SFS) score, derived from items 29 – 34, is designed as a quick referential measure of the client's social functioning. Refer to Appendix 4 for scoring details.

Item 29. *How often in the last 3 months have you had any money problems, including arguing about money or not having enough for food or housing?*

In addition to what is stated in the question, "money problems" may include a considerable degree of concern or time spent worrying about lack of sufficient funds.

Item 30. *How often in the last 3 months have you had conflict with your partner/spouse? By conflict, I mean verbal abuse, serious argument or violence, not a routine difference of opinion.*

This question contains a "not applicable" response, coded "8". It may be useful to preface this question with the following statement, "Have you been in a relationship or had significant contact with a ex-spouse or partner over the last 3 months?". If the answer is "no" then the "not applicable" response should be ticked.

Item 31. *How often in the last 3 months have you had conflict with your relatives?*

This question contains a "no contact with relatives" response, coded "8". It may be useful to preface this question with the following statement, "Have you had any contact with your relatives over the last 3 months?" It may be worth reiterating the meaning of conflict, as described in question 30.

Item 32. *How often in the last 3 months have you had conflict with your employer/school?*

This question contains a "not employed/not at school" response, coded "8". It may be useful to preface this question with the following statement, "Have you done any paid or volunteer work or study over the last 3 months?" It may be worth reiterating the meaning of conflict, as described in question 30.

Item 33. *How much of the time over the last 3 months have you lived with anyone who uses heroin or other illicit opioids?*

This includes both sexual partners and housemates who have used illicit opioids, including diverted methadone in the last 3 months.

Item 34. *How much of the time over the last 3 months have you spent with friends who don't use heroin or other illicit opioids?*

"Friends who don't use heroin or other illicit opioids", may include ex-users.

Item 35. *Arrests relating to offences allegedly committed in the past 3 months.*

In part (a) the client is asked to state the numbers of times that they were arrested over the past 3 months. In order to assess instances of criminal behaviour during treatment, in part (b) the client is asked to state how many of these arrests, [in part (a)], relate to offences committed in this period.

Whilst the number of arrests may underestimate the extent of a client's criminal behaviour it is more likely clients will give an honest response as arrests are a matter of public record. This item is an important outcome measure, since crime may be instrumentally linked to the funding of drug use (Hough, 1996) and a reduction in criminal behaviour is an important societal and personal benefit from treatment (Anglin & Speckart, 1998).

Item 36. *Involvement with Child Protect Services (or equivalent authority having jurisdictional responsibility) and removal or restoration of child to care.*

Restoration to, or removal of child from, the care of a client may provide an assessment of general social functioning and may reflect additional treatment needs for the client.

3.8 Section E. Opioid Maintenance Pharmacotherapy Treatment

This section applies only to those clients currently receiving methadone or buprenorphine treatment, including those who have been transferred from another methadone/buprenorphine program.

Items 37-39. Service Delivery Characteristics to be completed at each interview, including "baseline" interview

The questions in this section are designed to enable comparison of treatment outcomes across different modes of service delivery. These questions aim to identify how any differences in service delivery may relate to differences in treatment outcome.

Item 43. To what extent are you satisfied with the treatment you are receiving at this agency?

Satisfaction with treatment may relate to treatment outcome. How a client answers this question may be influenced by who is asking it, e.g., the client's case manager vs. an independent interviewer. The likelihood of achieving an unbiased response to this question may be increased if good rapport is established with the client, prior to the interview; if it is clearly explained that honest answers are valued and not that negative consequences will arise as a result of their responses to any questions.

3.9 Section F & G. Commencement and Cessation of Treatment

This section contains NSW MDS demographic items which are required for analysing patterns of service utilisation. See "2002 – 2003 NSW Minimum Dataset for Alcohol and Other Drug Treatment Services: Data Dictionary and Collection Guidelines" (NSW Health Department, 2002) for a detailed guide on how to answer these questions.

4.0 Psychometric Properties of the BTOM

4.1 Study Protocol

In order to examine the test-retest and inter-rater reliability and the concurrent validity of the BTOM, 160 clients who were receiving OMP at two public clinics and one private clinic in the South East Sydney Area Health Service were recruited and interviewed (refer to sub-sections 4.4 – 4.6). Each client was administered the questionnaire on two occasions, three to seven days apart. On the second occasion of administration, the subject was also administered subscales from the Opioid Treatment Index (OTI) (Darke et al., 1992), General Health Questionnaire-28 (GHQ-28) (Goldberg & Hillier, 1979) or 12-item Short-Form Health Survey (SF-12) (Ware et al., 1996) and the Blood Borne Virus Transmission Risk Assessment Questionnaire (BBV-TRAQ) (Fry et al., 1998) in order to assess the concurrent validity of the BTOM sub-scales. Clients were not be eligible to participate if they were less than 18 years of age or not fluent in the English language. The characteristics of this sample are summarised in sub-section 4.2 and described in detail in Appendix 1.

An additional 25 clients were recruited to assess inter-rater reliability between client's self-completion and trained interviewers. The clients completed the BTOM by themselves on the first occasion and were interviewed by a trained interviewer on the second occasion. This was done to determine whether client self-completion of the BTOM in a clinical setting is feasible.

An examination of the internal reliability of the BTOM scales and the underlying structure of the BTOM utilised over 1500 baseline BTOM questionnaires collected as part of the BTOM clinical trial over a 30 month period (refer to sub-sections 4.3 and 4.7). The characteristics of this sample are summarised in sub-section 5.2 and described in detail in Appendix 1.

4.2 Characteristics of the BTOM Test-retest Participants

The mean age of the 160 test-retest participants was 37.4 years (SD 8.04, range 19-56 years) and 59.6% were male.

The proportion of males and females in this group was similar to that of the clients participating in the clinical trial although the clinical trial participants were younger on average, 31.3 years (SD 8.23, range 15-62). This most likely reflects the selection criteria. Clients participating in the clinical trial were commencing OMP either as a first time treatment entrant or after being out of treatment for 4 weeks. In comparison, clients participating in the test-retest studies were selected on the basis that they had been in treatment for at least 3 months. See tables A.1.1 – A.1.4 in Appendix 1 for a summary of

the demographic characteristics, treatment information, injecting drug use and drug use of the clients participating in this analysis in comparison with the clinical trial clients.

The mean retest interval for all subjects was 6.3 days (SD 1.5, range 3-7 days), for the same interviewer was 5.6 days (SD 1.8, range 3-7 days) and for different interviewers was 7.0 days. The mean interview time was 14.5 minutes (SD 4.9, range 7-33 minutes).

4.3 Internal Reliability

Table 4.3 Coefficient alpha calculated for BTOM scale scores

Scale	Coefficient Alpha	No. of Baseline Interviews
SDS	0.76	1486
BBVER	0.86	1235
PFS	0.80	1486
SFS (all)	0.52	320
SFS (missing item 30)	0.44	410
SFS (missing item 31)	0.44	355
SFS (missing item 32)	0.55	833
SFS (missing items 30 & 31)	0.35	455
SFS (missing items 30 & 32)	0.46	1247
SFS (missing items 31 & 32)	0.49	979
SFS (missing items 31, 32 & 33)	0.42	1484

Cronbach's coefficient alpha (Cronbach, 1951 cited in Switzer et al, 1999) was calculated for each scale of the BTOM using data collected from clinicians at "baseline". A coefficient alpha of between 0.5 – 0.8 is considered an acceptable level of internal reliability for scales where group comparisons are to be made (Ware, 1984 cited in Switzer et al, 1999). The SFS, a 6 item sub-scale of the BTOM, contains 3 items where a "not applicable" response is possible and if selected that item or items are not included in the final score calculation (see appendix 4). Depending upon the items included, 8

combinations of 3, 4, 5 or 6 items are possible. Presented in Table 4.3, along with the other BTOM scales, are the coefficient alphas for each of the 8 combination of items that make up the SFS scale. While the coefficient alphas for the SFS scales are below 0.70, they are not dissimilar to the coefficient alpha (α = 0.58) for the "Social Functioning" sub-scale in the OTI, indicating the difficulty of selecting items for a "social functioning" domain.

4.4 Test-rest Reliabilty

4.4.1 Test-retest Reliability of BTOM Scales

Table 4.4 Test-retest Intra-class Correlation Coefficient (ICC) reliability estimates for BTOM scale scores

Scale or Item*	All Subjects ICC (95% CI) [N=160]	Same Interviewer ICC (95% CI) [N=80]	Different Interviewer ICC (95% CI) [N=80]
Severity of Dependence Scale	0.85 (0.79 – 0.89)	0.89 (0.82 – 0.94)	0.81 (0.69 – 0.87)
Blood Borne Virus Exposure Risk	0.77 (0.70 – 0.83)	0.88 (0.81 – 0.92)	0.67 (0.53 – 0.78)
Polydrug Use	0.83 (0.78 – 0.88)	0.81 (0.72 – 0.77)	0.86 (0.79 – 0.91)
Health*	0.75 (0.68 – 0.81)	0.80 (0.70 – 0.77)	0.70 (0.57 – 0.80)
Psychological Functioning	0.87 (0.82 – 0.90)	0.90 (0.85 – 0.94)	0.84 (0.75 – 0.89)
Social Functioning	0.74 (0.65 – 0.81)	0.76 (0.63 – 0.84)	0.72 (0.56 – 0.82)
No. of Arrests*	0.84 (0.78 – 0.88)	0.87 (0.80 – 0.91)	0.82 (0.73 – 0.89)
Satisfaction with treatment**	NA	NA	0.87 (0.79 – 0.93)

*** n=52 for this item as it was included later in the development of the BTOM*

The test-retest reliability of the BTOM was assessed by calculating intra-class correlation coefficients on the total scores of the BTOM scales obtained at the first and second interviews. The results of these analyses are presented in Table 4.4. All were statistically significant at $p<0.01$ level (2 tailed). It is generally accepted that an ICC above 0.75 indicates excellent reliability; 0.65 – 0.74 good reliability; 0.40 – 0.64 fair reliability and below 0.40 poor reliability (Fleiss, 1991). Whilst all the ICC's for the BTOM scale scores are either excellent or good, it is worth noting that different interviewers generally had

lower retest ICC's and wider confidence intervals than that achieved by the same interviewers. This highlights the importance of comprehensive and consistent training of potential interviewers to maximise the reliability of responses.

Table 4.5 **Test-retest Intra-class Correlation Coefficient (ICC) and Kappa Coefficients (κ) reliability estimates for Occasions of Drug Use for each drug class**

Occasions of Drug Use in the last 30 Days	All Subjects ICC (95% CI)	N	Agreement between reported use and non-use (κ) N = 160
Alcohol	0.74 (0.61 – 0.83)	67	0.83
Opioids	0.78 (0.65 – 0.86)	61	0.75
Cannabis	0.83 (0.75 – 0.88)	95	0.93
Cocaine	0.67 (0.41 – 0.83)	30	0.75
Amphetamines	0.79 (0.51 – 0.92)	17	0.56
Tranquilisers	0.59 (0.44 – 0.71)	92	0.90
Nicotine	0.90 (0.87 – 0.93)	147	0.94

Intra-class correlation coefficients were calculated on the total Occasions of Drug Use Scores (ODUS) obtained at the initial and retest interviews. The results of these analyses are presented in Table 4.5. All were statistically significant at $p<0.01$ level (2 tailed). ICC's are shown for those clients reporting use of each substance in the preceding month. Cohen's kappa (κ) coefficients were calculated to assess agreement between reported use and non-use from the first to the second interview for each substance and are presented in table 4.5. Kappa values of less than 0.40 are considered poor agreement; values between 0.40 and 0.60 as fair agreement; values between 0.61 and 0.75, good agreement and values above 0.75 as excellent agreement (Landis & Koch, 1997).

4.4.2 Test-retest Reliability of Categorical Items

Table 4.6 Kappa Coefficients (κ) as a Measure of Test-retest Reliability for Selected BTOM Categorical Items

Item No. & Description	All Subjects (κ) N=160	Same interviewer (κ) N=80	Different Interviewer (κ) N=80
6. Income	0.80	0.87	0.68
7. Accommodation	0.74	0.86	0.62
8. Living arrangement	0.90	0.98	0.85
10. Method of drug use	0.91	0.91	0.90
13. When last injected	0.67	0.72	0.63
36a. CPS* involvement	0.53	0.66	0.38
41b. Suitability of dose	0.52	0.63	0.37
42. Stability of dose	0.68	0.57	0.81

*Child Protection Services

Test-retest reliability of categorical data was assessed with Cohen's kappa (κ). The results of these analyses are presented in Table 4.6. All were statistically significant at the $p<0.01$ level. The categorical items that were selected for test-retest analyses required a subjective choice to be made by the client. The retest reliability was generally lower for different interviewers than that achieved by the same interviewers. This was particularly evident for items 36a and 41b where inter-rater reliability was poor whilst retest-reliability for these items was good. This serves to highlight yet again the importance of comprehensive and consistent training of potential interviewers to maximise the reliability of responses. Items 1 – 5 are demographic characteristics derived from the National Health Data Dictionary (Australian Institute of Health and Welfare, 2002) and were not subject to test-retest analyses. Neither were the remaining items in Section E and Sections F and G, which for the most part will be completed by the interviewer.

4.5 Test-retest Reliability of Self-completion vs. Interviewer

Intra-class correlation coefficients were calculated to assess the inter-rater reliability between client self-completion and trained interviewer administration of the BTOM. These yielded ICC's of 0.15 (SDS), 0.75 (BBVER), 0.54 (Polydrug Scale), 0.28 (Health), 0.58 (PFS) and 0.56 (SFS). This indicates that the BTOM should not be completed by the client, as any data collected would be of questionable value with only BBVER demonstrating good reliability.

4.6 Collateral Validity of BTOM Scales

Table 4.7 Correlations of BTOM with analogous scales from other instruments

Scale or Item	Correlation (r)	N
BTOM BBVER vs BBV TRAQ	0.71	105
BTOM Polydrug vs Poly OTI	0.84	127
BTOM Psychological Functioning Scale vs GHQ-28	0.61	91
BTOM Psychological Functioning Scale vs SF-12 MCS	0.79	39
BTOM Social Functioning Scale vs Social OTI	0.58	102
BTOM Health vs SF-12 PCS	0.57	39
BTOM opioids ODUS* vs OTI heroin	0.73	100
BTOM alcohol ODUS vs OTI alcohol	0.86	100
BTOM cannabis ODUS vs OTI cannabis	0.95	100
BTOM cocaine ODUS vs OTI cocaine	0.64	100
BTOM amphetamines ODUS vs OTI amphetamines	0.79	100
BTOM tranquilisers ODUS vs OTI tranquilisers	0.59	100
BTOM tobacco ODUS vs OTI tobacco	0.96	100
** Includes heroin, non-prescribed methadone and other illicitly obtained opioids*		

Pearson product-moment correlation coefficients (r) calculated between BTOM scale scores and relevant scales from the Opioid Treatment Index (OTI), General Health Questionnaire-28 (GHQ-28) or 12-item Short-Form Health Survey (SF-12) and the Blood Borne Virus Transmission Risk Assessment Questionnaire (BBV-TRAQ) are presented in Table 4.7. All correlations are statistically significant, $p<0.01$.

4.7 Factor Analysis

To examine the underlying structure of the instrument, a principal components analysis with varimax rotation was performed on 26 items comprising the SDS, BBVER, PFS and SFS sub-scales of the BTOM. The questionnaires used for the analysis were obtained from the clinical trial. The 6 factor rotated solution is presented in Table A.2.1 in Appendix 2.

Factor 1 consists of the BBVER items, and accounts for 19% of the variance. Factor 2 accounts for 13% of the variance, contains all the PFS items with exception of item 28(h), “Has the client attempted suicide (in the last 3 months)?”. The absence of this item from the factor may be explained by the relatively rare occurrence of this “event” compared to the occurrence of the feelings associated with the other sub-items of this scale. It is worth noting that item 28(h) is present in Factor 5 along with item 28(g), “Has the subject thought of ending their life?” Factor 5 is a relatively weak factor,

accounting for 4% of the variance. Factor 4 containing 4 of the 6 items of the SFS, accounts for 5% of the variance.

In order to better clarify the structure of the SFS, a principal components analysis with varimax rotation was performed on the 6-item scale. The 2 factor rotated solution is presented in Table A.2.2 in Appendix 2. Factor 1 accounting for 28% of the variance, contains the 3 conflict items, plus item 29, "How often has the subject experienced money problems, including arguing about money or not having enough for food or housing?" This factor has revealed what could be termed, a "conflict related" sub-scale of the SFS. The remaining factor has revealed a "quality of peer network" subscale of the SFS and accounts for 22% of the variance.

The analysis presented in Table A.2.1 clearly identifies the main scales of the BTOM and supports the original intention of the Content Advisory Group when they delineated the content domains of the instrument.

5.0 BTOM Clinical Trial

5.1 Clinical Trial Protocol

A 30-month clinical trial of the BTOM was conducted at selected rural and metropolitan Area Health Service and private methadone clinics in NSW. All clients commencing maintenance treatment, and who were not receiving opioid maintenance pharmacotherapy for at least one month prior to their induction into an opioid maintenance pharmacotherapy program, were invited to participate in the study.

Clients were administered the BTOM at commencement of treatment and every 3 months thereafter until the completion of the trial. The administration was conducted by a member of staff as a face to face interview. It was intended that the BTOM would be administered in conjunction with client case management. The trial was preceded by the production and distribution of a training manual and training sessions for agency staff who participated in the trial.

It should be emphasised that the primary purpose of the BTOM pharmacotherapy clinical trial was to assist in evaluating the psychometric properties of the BTOM, aid in refining the content of the instrument, investigate the challenges associated with incorporating the BTOM into routine clinical practice and to identify business practices that may facilitate this aim. The data presented should be viewed as preliminary data from the trial phase of the implementation of the BTOM in pharmacotherapy services in NSW, and thus may not be representative of all pharmacotherapy clients in the NSW public system. These data are presented to give an indication of how they may be utilised in an aggregated form by agencies, program administrators and researchers. There are clearly many other ways of analysing the data, depending upon the priorities of the key stakeholders.

5.2 Characteristics of the Clinical Trial Participants

Tables A.1.1 – A.1.4 in Appendix 1 provide a summary of the demographic characteristics, treatment information, injecting drug use and drug use of the clinical trial participants in comparison with the psychometric study clients.

The mean age of the clinical trial participants was 31.3 years (SD 8.22, range 18-62 years) at commencement of treatment and 60.9% male.

Over 1500 clients entering into OMP (85% methadone and 15% buprenorphine) at public OMP clinics across metropolitan and rural NSW were recruited into the trial. The 3 month review rate was 22.1%, taking into account those clients who not yet been in treatment for 3 months at the conclusion of the trial and those that had ceased treatment

less than 3 months from the commencement of treatment. This low review rate is indicative of the fact that the BTOM was only being trialed in the OMP clinics and had not been implemented as a routine clinical activity. The actual review rate is likely to be higher, given that only 258 cessation of treatment notifications were received, which from discussions held with clinicians from participating clinics is a considerable underestimate of actual treatment cessations over the period of the trial.

5.3 BTOM Scale Scores of the Clinical Trial Participants

Table 5.1 Differences in mean BTOM scale scores

BTOM Scale or Item* (maximum possible total)	Baseline – 3 Month Score Mean (SD) [n=280]		Baseline – 6 Month Score Mean (SD) [n=130]		Baseline – 9 Month Score Mean (SD) [n=70]	
	Baseline	3 month	Baseline	6 month	Baseline	9 month
SDS (15)	10.7 (3.28)	4.8 (3.90)	10.7 (3.56)	3.3 (3.28)	11.9 (3.03)	2.25 (2.94)
BBVE risk (7)	1.5 (2.02)	0.4 (1.21)	1.5 (2.03)	0.2 (0.82)	1.5 (1.99)	0.2 (0.76)
Polydrug use (7)	3.6 (1.38)	2.6 (1.27)	3.4 (1.46)	2.3 (1.36)	3.6 (1.38)	2.3 (1.24)
Health* (5)	3.6 (0.99)	3.0 (0.93)	3.7 (0.96)	3.0 (0.94)	3.6 (0.90)	3.0 (0.93)
Psychological Functioning (8)	4.0 (2.33)	2.4 (2.24)	3.8 (2.43)	2.1 (2.00)	3.8 (2.29)	2.1 (2.01)
Social functioning (18)	7.7 (4.07)	5.1 (3.50)	8.0 (4.18)	4.1 (3.3)	8.4 (4.16)	4.4 (3.35)
No. of arrests in last 3 months*	0.31 (0.73)	0.14 (0.53)	0.24 (0.67)	0.10 (0.35)	0.29 (0.84)	0.04 (0.27)

Table 5.2 Differences Occasions of Drug Use Scores

Occasions of Drug Use in Last 30 Days	Baseline – 3 month ODUS Mean (SD) [n=280]		Baseline – 6 month ODUS Mean (SD) [n=130]		Baseline – 9 month ODUS Mean (SD) [n=70]	
	Baseline	3 month	Baseline	6 month	Baseline	9 month
Opioids	93 (183.8)	5 (27.4)	81 (168.0)	2 (6.6)	61 (52.1)	1 (3.0)
Alcohol	27 (98.1)	16 (49.3)	9 (18.6)	9 (26.7)	20 (54.9)	10 (27.6)
Cannabis	97 (192.4)	91 (178.0)	102 (207.9)	83 (193.2)	104 (227.0)	78 (170.3)
Cocaine	4 (23.2)	3 (23.2)	2 (9.0)	2 (11.2)	1.2 (6.0)	0.3 (1.7)
Amphetamine	3 (8.6)	1 (4.5)	3.8 (11.9)	0.4 (1.6)	5.4 (13.6)	0.5 (2.1)
Tranquilisers	30 (106.3)	8 (33.8)	29 (114.93)	6 (21.6)	27 (67.8)	8 (25.2)
Tobacco	523 (336.4)	471 (347.8)	546 (334.8)	483 (298.6)	537 (333.9)	464 (298.1)

Over 1500 clients have been administered the BTOM at the commencement of their OMP. Of these 280 clients have been reviewed at three months, 130 at six months and 70 at nine months.

Clients reviewed at 3 months from commencement of treatment (baseline) have shown statistically significant decreases in Severity of Dependence, ($p<0.01$); Blood Borne Virus Exposure Risk, ($p<0.01$); number of classes of drugs taken, ($p<0.01$); number of arrests, ($p<0.01$); and occasions of opiate, ($p<0.01$); alcohol, ($p<0.05$); tranquiliser, ($p<0.01$); amphetamine, ($p<0.01$) and tobacco use, ($p<0.01$). Significant improvements were noted in client perception of their health, ($p<0.01$); psychological functioning, ($p<0.01$) and social functioning, ($p<0.01$). Please see Table 5.1 for a complete summary.

At 6 months following baseline 130 clients have been reviewed. With the exception of there being no change in alcohol and cannabis consumption these clients have demonstrated the same level of improvement found in those reviewed at 3 months. Refer to Table 5.1.

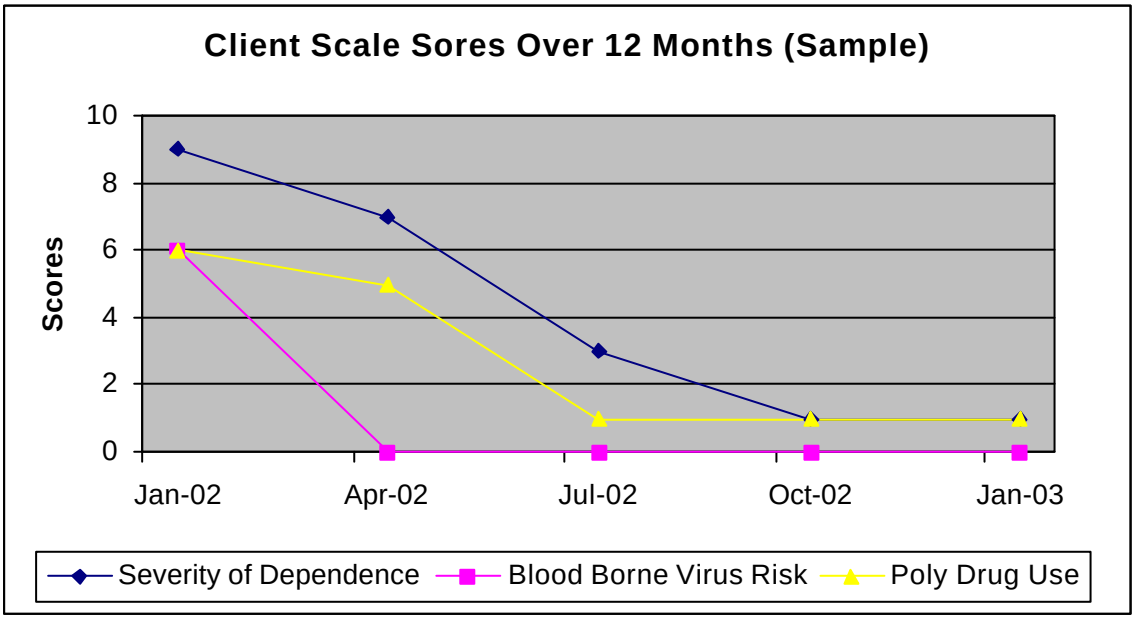
The baseline scores for the 3 follow-up points are presented as not all clients reviewed at 6 months were also reviewed at 3 months and not all clients reviewed at 9 months were also reviewed at 3 and 6 months. They represent 3 different sub-groups of the clients interviewed at baseline.

5.4 Clinical Utility of the BTOM Scale Scores

It is anticipated that the BTOM will assist the clinician and client to "chart" the client's progress through treatment. The content domains of the BTOM can act as a checklist of points to be covered in a case management review session. It is a means of formalising the monitoring process and serves as a stimulus for deeper exploration of the client's needs, and a means of providing feedback and positive reinforcement to clients via the scoring system.

Clinicians using the BTOM as a case management tool report that the Score Summary Sheet (see Appendix 4) provides a simple means for both clinician and client of viewing the client's progress through treatment. This process can be made more explicit by graphing the client's progress as shown in Figure 5.1, below.

Figure 5.1 Graphical representation of an individual client's progress through treatment



6.0 Clinician Assessment Survey for the BTOM

6.1 Background

To aid in evaluating the clinical trial of the BTOM in OMP and to elicit qualitative feedback from clinicians using the BTOM, a clinician survey was developed.

Methadone unit managers from the public clinics that were participating in the trial were asked to take responsibility for distributing the questionnaires to their staff and organising their collection. It was emphasised that every clinician who had administered the BTOM should complete the survey. There were many clinicians who administered the BTOM during the course of the trial who subsequently left that agency. Methadone unit managers were asked that these clinicians be contacted, if possible, and requested to complete the survey.

Prior to the survey distribution date 114 – 120 different clinicians were known to have administered at least one BTOM.

The BTOM Clinician Survey was sent out to all agencies that had been collecting the BTOM. The questionnaire consisted of 4 main sections:

1. Utility of the BTOM
2. Content of the BTOM
3. Administration and Support
4. Personal and Professional Details

In the first 3 sections respondents were asked to rate, on a likert scale, their agreement/disagreement with a series of statements. [1=strong disagreement; 2=moderate disagreement; 3=neither agree nor disagree; 4=moderate agreement and 5=strong agreement] Respondents were then asked to write a reponse to a series of opened ended questions.

6.2 Results

The mean age of the 59 respondents was 41 years (SD 8.8, range 24 – 57 years) and 72% were female. The respondents had worked a mean of 5.5 years (SD 5.03, range 1 – 24 years) in the alcohol and other drug field and their qualification levels are presented in Table 6.1. The median range of BTOM's administered by respondents over the course of the trial was 10 – 19.

Table 6.1 Qualification Level

Qualification	Number
Diploma	4
Nursing (RN or degree)	31
Degree (social work/psychology)	10
Clinical Psychologist	2
Medical Practitioner	1

Tables 6.2 - 6.4 present mean ratings for the clinician's perception of the utility and content of the BTOM, and the administrative burden and level of support associated with using the BTOM. All mean ratings are between 3 (neither agree nor disagree) and 4 (moderate agreement) for the statements shown in the tables. This indicates that overall the respondents surveyed were neutral to somewhat positively predisposed towards using the BTOM.

Considering that these clinicians were asked to perform a task, in addition to their usual workload and one whose business processes were not yet established, the responses were very encouraging.

Table 6.2 Mean clinician ratings of the utility items

Item Description	N	Mean (SD)
BTOM is a clinically useful instrument	59	3.4 (1.20)
BTOM is useful for assessing new clients	57	3.5 (1.32)
BTOM is useful for client case management	58	3.4 (1.29)
BTOM assists me to monitor client treatment outcomes	58	3.3 (1.14)
BTOM assists me to evaluate client progress	57	3.4 (1.20)
BTOM scale scores assists me to track a client's progress whilst in treatment	56	3.1 (1.20)
Utility Scale Mean	**59**	**3.4 (1.10)**

Table 6.3 Mean Clinician ratings on the content items

Item Description	N	Mean (SD)
The questions are worded clearly and unambiguously	56	3.3 (1.14)
My clients find the questions acceptable	57	3.7 (0.80)
I find the questions acceptable	55	3.8 (0.82)
Section A questions cover the core of what I need to know	54	3.7 (0.98)
Section B questions cover the core of what I need to know	55	3.6 (1.08)
Section C questions cover the core of what I need to know	56	3.4 (1.12)
Section D questions cover the core of what I need to know	57	3.2 (1.08)
Section E questions cover the core of what I need to know	57	3.5 (1.00)
Section F questions cover the core of what I need to know	57	3.5 (1.02)
Section G questions cover the core of what I need to know	57	3.5 (0.98)
Content Scale Mean	**58**	**3.5 (0.77)**

Table 6.4 Mean clinician ratings on the administration and support items

Item Description	N	Mean (SD)
The layout of the BTOM makes it easy to administer	56	3.7 (1.03)
BTOM takes on average 15 minutes to administer	56	3.2 (1.16)
I am able to integrate the use of the BTOM into routine clinical practice	55	3.4 (1.26)
I received sufficient training and support for administration of the BTOM	54	3.3 (1.06)
BTOM Admin & Procedures Manual is a useful document	57	3.4 (0.91)
Administration and Support Scale Mean	**57**	**3.4 (0.77)**

6.3 Open Ended Questions: Summary of Responses

Clinicians were asked to provide a written response to a series of opened ended questions. A summary of the more common responses is presented in descending order of frequency of occurrence.

"Comment on what you found most useful about the BTOM"

- *Drug use section, determining current drug taking*
- *Promotes discussion, openings for counselling*
- *Provides overview of progress, allows monitoring of progress*
- *Psychological assessment: useful for screening*
- *To assist with baseline assessment*
- *Simple, well formatted*

"Comment on what you found least useful about the BTOM"

- *Duplication of data collection*
- *Lack of detail in some sections*
- *Too lengthy*
- *Severity of dependence scale*
- *Not a true indication of progress*

"What are the main barriers to successful implementation"

- *Lack of time*
- *Client's attitude: being difficult, lying, not taking it seriously*
- *Getting clients to attend appointments*
- *Staff Attitude: resistance, lack of consistency in completing forms*
- *Amount of other paperwork, administrative overload*

7.0 References

Anglin, M.D. & Speckart, G. (1988) Narcotics use and crime: a multisample, multimethod analysis. *Criminology*, 26, 197-233.

Australian Institute of Health and Welfare (AIHW). (2001) Guidelines for the NMDS for Alcohol and Other Drug Treatment Services 2001-2002. AIHW cat. No. HSE 16. Canberra: AIHW.

Australian Institute of Health and Welfare 2002. National Health Data Dictionary. Version 11.0. AIHW Catalogue No. HWI-36 Canberra: Australian Institute of Health and Welfare.

Bodsworth, N.J., Robertson, M. & Kaldor, J. (1994) Transmission of hepatitis C virus but not Human Immunodeficiency virus type 1 following sharing of cleaned injecting equipment. *Genitourinary Medicine*, 70, 206-207.

Center for Substance Abuse Treatment. (1995) *Developing State Outcome Monitoring Systems for Alcohol and Other Drug Abuse Treatment: Treatment Improvement Protocol (TIP) Series 14.* DHHS Publication No. (SMA) 95-3031.

Copeland, J., Rush, B., Reid, A., Clement., N. & Conroy, A. (2000) *Alcohol and Other Drug Treatment: Predictors of Outcome and Routine Monitoring Systems.* National Drug and Alcohol Research Centre Monograph No. 45: Sydney

Crofts, N. & Aitken, C. (1997) Incidence of blood borne virus infection and risk behaviours in a cohort of injecting drug users in Victoria, 1990-1995. *Medical Journal of Australia*, 167, 17-20.

Darke, S., Hall, W., Heather, N., Ward, J., & Wodak, A. (1991) The reliability and validity of a scale to measure HIV risk-taking behaviour among intravenous drug users. *AIDS*, 5, 181-185.

Darke, S., Hall, W., Heather, N., Wodak, A., & Ward, J. (1992) Development and validation of a multi-dimensional instrument for assessing outcome of treatment among opiate users: the Opiate Treatment Index. *British Journal of Addiction*, 87, 733-742.

Dennis, M.L., Rouke, K.M. & Caddell, J.M. (1993). *Global Appraisal of Individual Needs: Administration Manual*. (NIDA Grant No. R01-Da07864). Research Triangle Park, Research Triangle Institute: NC

Dorus, W. & Senay, E.C. (1980). Depression, demographic dimensions and drug abuse. *American Journal of Psychiatry*, 137, 699-704.

Fleiss, J.L. (1991) *Statistical methods for rates and proportions* (New York, John Wiley)

Fry, C., Rumbold, G., & Lintzeris (1998) *The Blood Borne Virus Transmission Risk Assessment Questionnaire (BBV-TRAQ): Administration and Procedures Manual.* Fitzroy: Turning Point Alcohol and Drug Centre Inc.

Goldberg, D., & Hillier, V.F. (1979) A Scaled Version of the General Health Questionnaire. *Psychological Medicine*, 9, 139-145.

Gossop, M., Darke, S., Griffiths, P., Hando, J., Powis, B., Hall, W., & Strang, J. (1995) The Severity of Dependence Scale (SDS): psychometric properties of the SDS in English and Australian samples of heroin, cocaine and amphetamine users. *Addiction*, 90, 607-614.

Hough, M. (1996) *Drug Misuse and the Criminal Justice System: a review of the literature.* Home Office Drug Prevention Initiative. Paper No. 15 (London Home Office)

Klee, H., Faugier, J., Hayes, C., Boulton, T. & Morris, J. (1990). AIDS-related risk behaviour, polydrug use and temazepam. *British Journal of Addiction*, 85, 1125-1132.

Kilpatrick, B., Howlett, M., Sedgewick, P. & Ghodse, A.H. (2000). Drug use, self report and urinalysis. *Drug and Alcohol Dependence*, 58(1-2), 111-116.

Landis, J.R. & Koch, G.G. (1977) The measurement of observer agreement for categorical data models. *Biometrics*, 33, 159-174.

MacDonald, M., Crofts, N., & Kaldor, J. (1996) Transmission of hepatitis C virus: rates, routes and cofactors. *Epidemiol Rev*, 18, 137-148.

New South Wales Government. (1999) *NSW Drug Summit: Government Plan of Action.* Sydney, NSW. Government

New South Wales Health Department. (2002). 2002 – 2003 NSW Minimum Dataset for Alcohol and Other Drug Treatment Services: Data Dictionary and Collection Guidelines, Version 2. Sydney, NSW. Government.

New South Wales Health Department. (in press) Brief Treatment Outcome Measure (BTOM): Administration and Procedures Manual Version 3. Sydney, NSW. Government

Rounsaville, B.J., Weissman, M.M., Kleber, H.D. & Wilber, C. (1982). Heterogeneity of psychiatric diagnosis in treated opiate addicts. *Archives of General Psychiatry*, 39, 161-166.

Switzer, G.E., Wisniewski, S.R., Belle, S.H. & Schultz, R. (1999) Selecting, developing and evaluating research instruments. *Soc Psychiatry Psychiatr Epidemiol,* 34, 399 – 409.

Teesson, M., Clement, N., Copeland, J., Conroy, A., & Reid, A. (2000). *The Measurement of Outcome in Alcohol and Other Drug Treatment: A Review of Available Instruments.* National Drug and Alcohol Research Centre Technical Report Number 92: Sydney.

Thorpe, L.E., Ouellet, L.J., Hershow, R., Bailey, S.L., Williams, I.T., Williamson, J., Monterroso, E.R. & Garfein, R.S. (2002). Risk of hepatitis C infection amongst young adult injection of drug users who share injection equipment. *American Journal of Epidemiology*, 155, 645-653.

Ward, J., Mattick, R.P & Hall, W. (Eds.) (1998). *Methadone Maintenance Treatment and Other Opioid Replacement Therapies.* Harwood Academic Publishers: Amsterdam.

Ware, J.E., Kosinski, M., & Keller, S.D. (1996). A 12-item Short-Form Health Survey (SF-12): construction of scales and preliminary tests of reliability and validity. *Medical Care*, 32(3), 220-233.

Appendices

Appendix 1 **Characteristics of the BTOM psychometric study participants and the clinical trial participants (at baseline)**

Appendix 2 **Factor loadings of the BTOM scale items**

Appendix 3 **Distributions of the BTOM scale scores**

Appendix 4 **BTOM Scores Summary Sheet**

Appendix 5 **The Brief Treatment Outcome Measure (BTOM)**

Appendix 1: Characteristics of the BTOM psychometric study participants and the clinical trial participants

Appendix 1

Table A.1.1 Characteristics of the BTOM psychometric study participants and clinical trial participants (at baseline)

	Psychometric Study Participants (N=160)	Clinical Trial Participants (N=1530)
DEMOGRAPHIC CHARACTERISTICS		
Age	37.6 (SD 8.04, range 19-56)	31.3 (SD 8.22, range 18-62)
	%	**%**
Gender (Male)	59.6	61
ATSI Descent	6.9	13.9
Born in Australia	82.4	84.2
Main source of income		
Pension	59.1	29.0
Temporary benefit	30.8	51.9
Employment	8.1	9.6
Accommodation		
Rented house or flat	79.4	62.4
Privately owned house or flat	6.9	23.5
Boarding house	5.0	4.1
hostel	2.5	1.1
Living arrangements		
Alone	34.4	20.2
With partner	17.5	16.0
With friends	16.9	10.8
With partner and children	11.7	11.2
With children, no partner	11.0	6.5
With parents	5.8	20.5
Arrested in the last 3 months	12.5	20.9
Involvement with child protection services	3.8	6.4
DRUG USE RELATED BEHAVIOUR		
Injected in last 3 months	68.1	83.8
Needle / syringe sharing in last 3 months	10.5	20.4
Overdosed in last 3 months	4.8	8.7
Other drug of concern	53.0	40.0
TREATMENT INFORMATION		
Methadone prescriber		
Doctor in public clinic	65.6	75.6
Doctor in private clinic	26.9	6.9
General practitioner	7.5	17.3
Methadone dosing site		
Public clinic	75.6	90.0
Private clinic	24.4	3.8

Table A.1.2 Drug use in last month of participants in psychometric trial (PT) and clinical trial (CT) (at baseline)

Drug type	Use in last month (%)		Injected in last month (%)	
	PT	CT	PT	CT
Heroin and other opioids	46.2	85.3	93.2	82.6
Alcohol	48.7	42.9	N/A	N/A
Cannabis	61.9	60.2	N/A	N/A
Cocaine	24.4	16.0	97.4	92.4
Amphetamines and related substances	18.1	25.2	86.2	82.9
Tranquilisers	60.6	37.1	3.2	5.1
Nicotine	94.4	94.0	N/A	N/A

Table A.1.3 BTOM scale scores of participants in psychometric trial (PT) and clinical trial (CT) (at baseline)

Scale or Item*	PT Mean (SD)	CT Mean (SD)
Severity of Dependence	5.0 (4.28)	10.7 (3.50)
Blood Borne Virus Exposure Risk	1.5 (1.86)	1.4 (2.05)
Polydrug Use	3.5 (1.48)	3.6 (1.40)
Health*	3.5 (1.04)	
Psychological Functioning	4.2 (2.22)	3.9 (2.40)
Social Functioning	7.7 (3.98)	7.7 (4.05)
No. of Arrests*	0.2 (0.52)	0.35 (1.00)

Table A.1.4 Occasions of drug use of participants in psychometric trial (PT) and clinical trial (CT) (at baseline)

Occasions of Drug Use in the last 30 Days	PT Mean (SD)	CT Mean (SD)
Alcohol	34 (94.8)	22 (77.7)
Opioids	8 (17.9)	81 (169.5)
Cannabis	162 (367.9)	108 (261.5)
Cocaine	3 (10.7)	6 (40)
Amphetamines	5 (47.6)	5 (30.3)
Tranquilisers	82 (223.2)	37 (154.3)
Nicotine	550 (356.7)	546 (321.9)

Appendix 2: Factor loadings of the BTOM scale items

Appendix 2 Table A.2.1: Factor loadings of the BTOM scale items

BTOM Scale Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Does subject think drug use is out of control			.757			
Does prospect of missing drug make subject anxious			.770			
Does subject worry about drug use			.761			
Does subject wish they could stop taking drug			.588			
Would subject find it difficult to stop using drug			.633			
Did subject share needle/syringe with anyone else	.548					
Did subject share spoon with anyone else	.805					
Did subject share water with anyone else	.862					
Did subject share filter with anyone else	.867					
Did subject share tourniquet with anyone else	.592					
Did subject share drug solution/mix	.829					
Did subject share swabs with anyone else	.556					
Does subject feel lonely, sad, blue, etc		.692				
Has subject lost interest in work, school, friends, sex, etc		.642				
Does subject have difficulty concentrating or making decisions		.673				
Does subject feel shy, self-conscious, etc		.704				
Does subject think that others do not understand their situation		.731				
Is subject easily annoyed, irritated, etc		.625				
Has subject thought of ending their life		.406			.674	
Has the subject attempted suicide					.808	
How often has subject experienced money problems				.549		
How often has subject had conflict with partner/spouse						
How often has subject had conflict with relatives				.403		
How often has subject had conflict with employer/school						.818
How much time spent living with drug user				.558		
How much time spent with non-drug using friends				.731		
Eigen Values	**4.94**	**3.48**	**2.16**	**1.32**	**1.10**	**1.03**
Variance Explained	**19%**	**13%**	**8%**	**5%**	**4%**	**4%**

Table A.2.2: Factor loadings of the BTOM Social Function Scale items

Social Functioning Scale Items	Factor 1	Factor2
How often has subject experienced money problems	.643	
How often has subject had conflict with partner/spouse	.749	
How often has subject had conflict with relatives	.709	
How often has subject had conflict with employer/school	.431	
How much time spent living with drug user		.797
How much time spent with non-drug using friends		.778
Eigen Values	**1.67**	**1.30**
Variance Explained	**28%**	**22%**

Appendix 3: Distribution of BTOM Scale Scores

Appendix 3: Distribution of BTOM Scale Scores

Figure A.3.1: Distribution of the Severity of Dependence Scale Scores

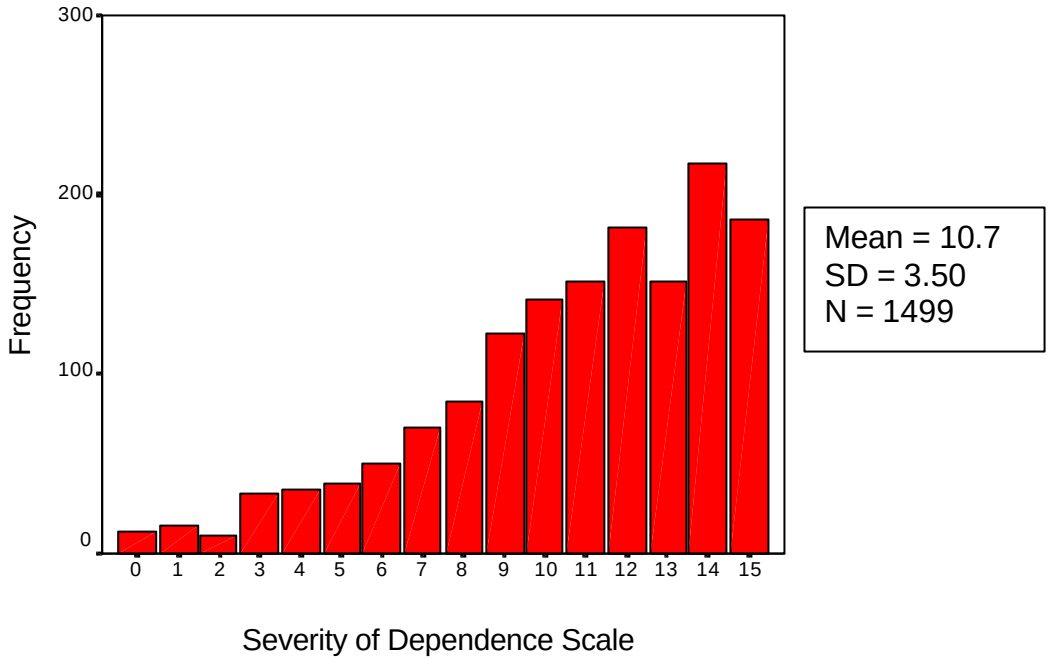


Figure A.3.2 Distribution of the Blood Borne Virus Exposure Risk Scale Scores

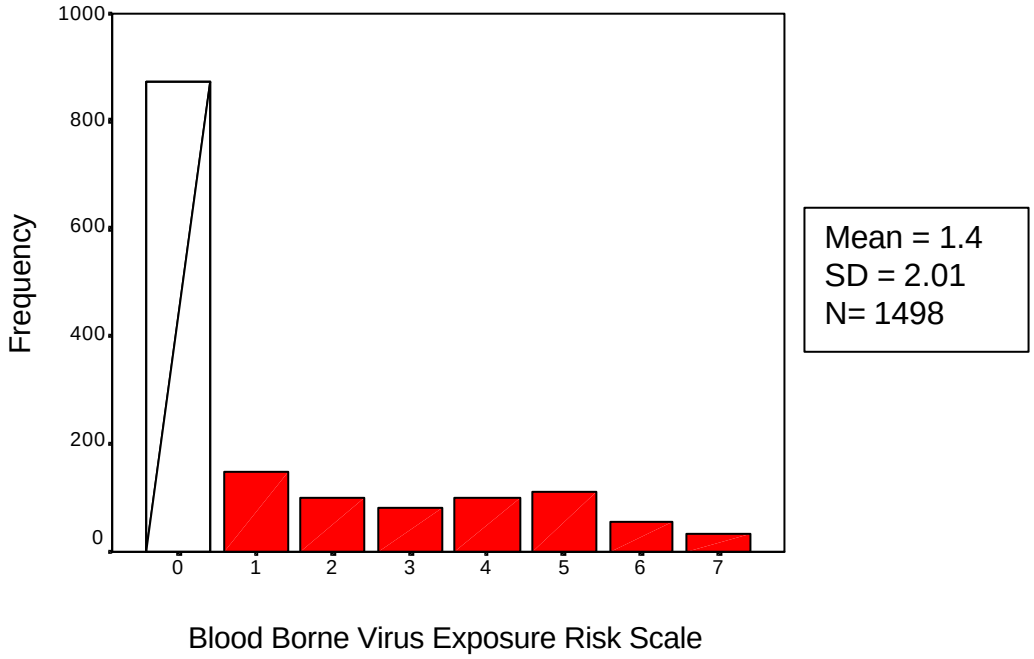


Figure A.3.3 Distribution of the Polydrug Scale Scores

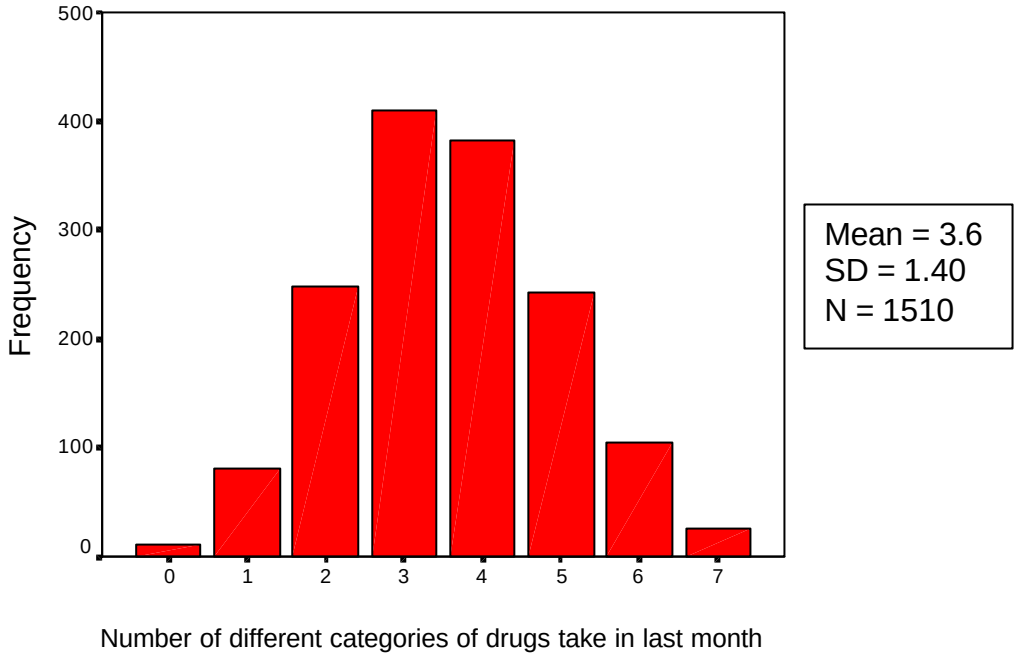


Figure A.3.4 Distribution of the Health Scores

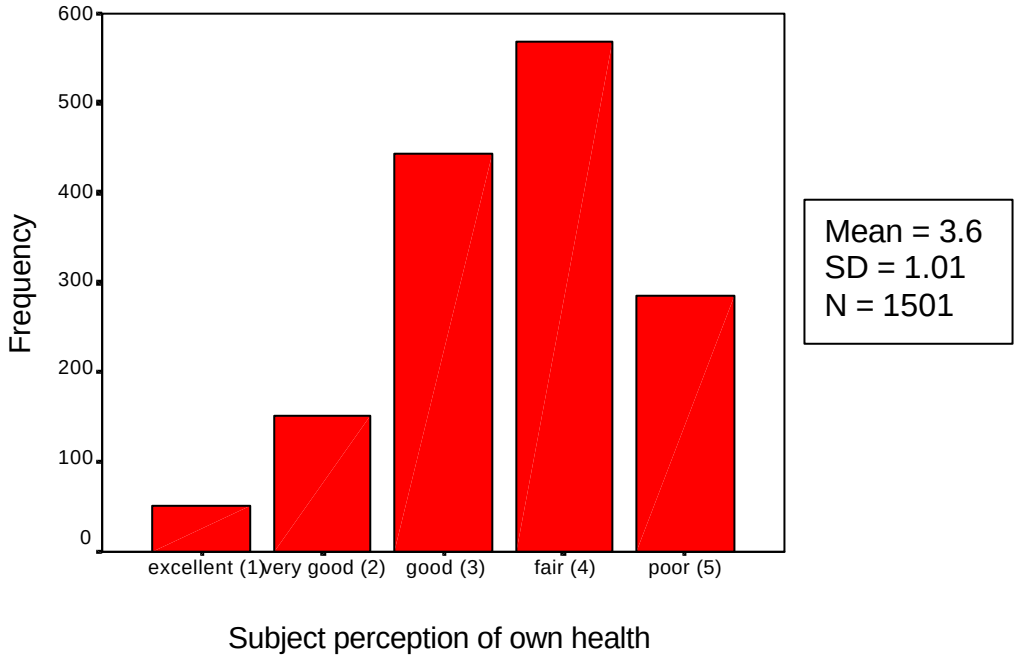


Figure A.3.5 Distribution of the Psychological Functioning Scale Scores

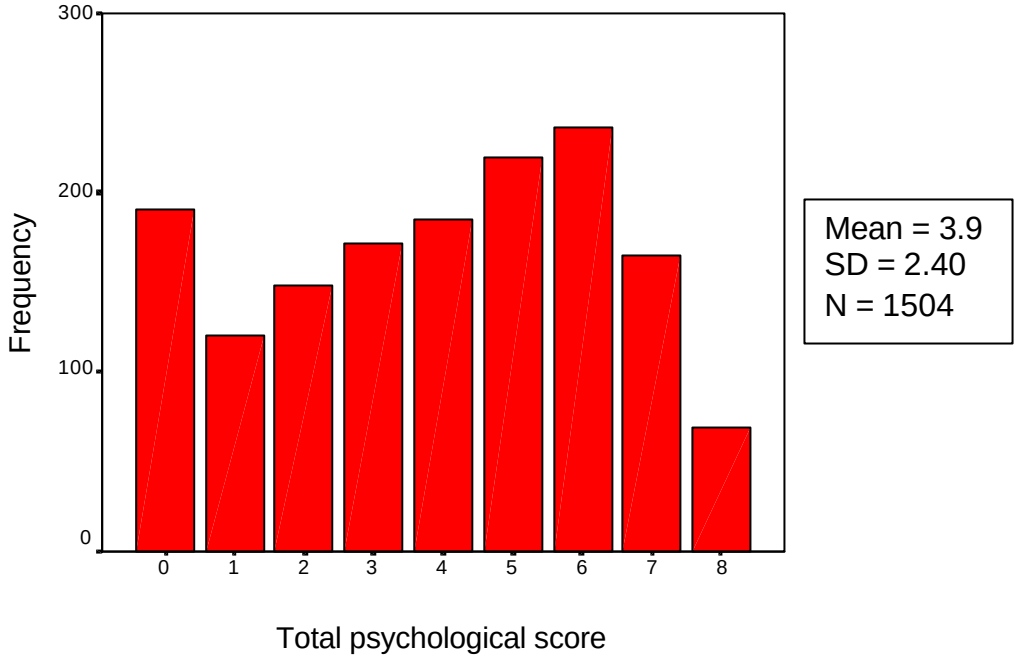
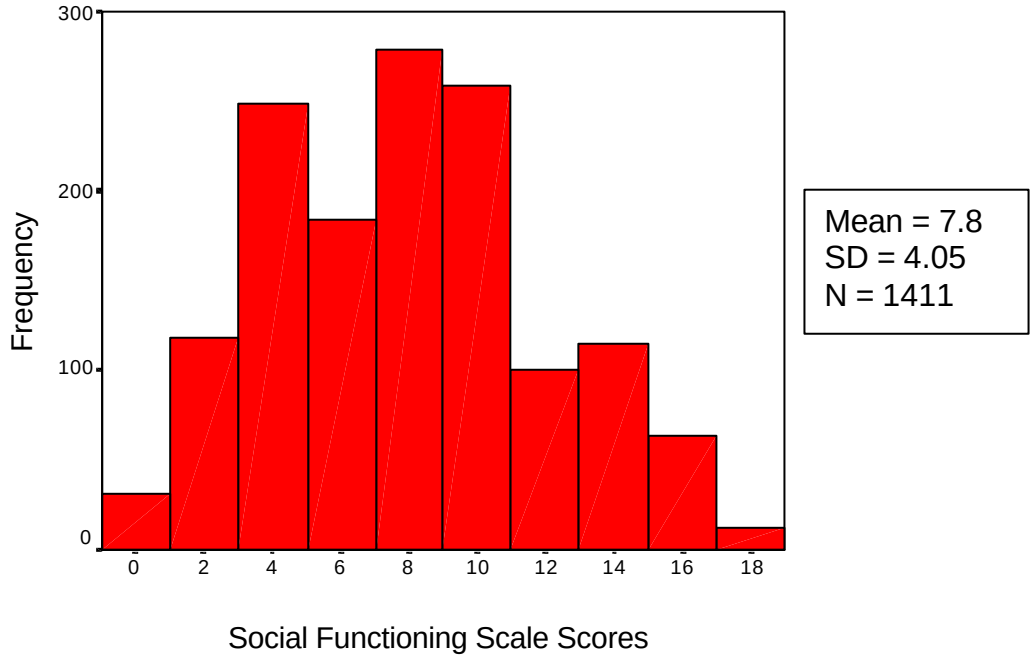


Figure A.3.6 Distribution of the Social Functioning Scale Scores



Appendix 4: Distribution of BTOM Scale Scores Summary Sheet

BTOM scores summary sheet

Client name: _____ **Commencement of Treatment Date:**_____

Client PSB code: _____ **Agency Name:** _____

BTOM SCORES	**Baseline**	**3 month**	**6 month**	**9 month**	**12 month**
Date of interview					
1. Severity of Dependence Scale score/15					
2. Blood Borne Virus Risk Scale score/7					
3. Poly-drug Use Scale score/7					

4. Occasions of Drug Use Scale scores. (see overleaf)
[F = Frequency (a), Q = Quantity (b), T = Total]

	Baseline			**3 month**			**6 month**			**9 month**			**12 month**		
	F	**Q**	**T**	**F**	**Q**	**T**	**F**	**Q**	**T**	**F**	**Q**	**T**	**F**	**Q**	**T**
ODUS alcohol															
ODUS opiates															
ODUS cannabis															
ODUS cocaine															
ODUS amphetamines															
ODUS tranquillisers															
ODUS tobacco															

	Baseline	**3 month**	**6 month**	**9 month**	**12 month**
5. Health score/ 5 (Question 24)					
6. Psychological functioning score/8					
7. Social Functioning Scale score/18					

GUIDE TO SCORING THE BTOM

1. Severity of Dependence Scale (SDS – questions 11a -11e)

SDS score *= Q11a + Q11b + Q11c + Q11d + Q11e*

2. Blood Borne Virus Risk Scale (BBVRS – questions 14 & 15)

1. If a client has scored 1, 2, 3, 4 or 5 for question 14, give them 1 point, as shown below:
2. If the client has scored 6 for question 14, give them 0 points, as shown below:

14. How many times in the last 3 months did you use a needle and syringe after someone else had already used it (including your sex partner and even if it was cleaned)?

More than 10 times	☐	1	1 point
6 to 10 times	☐	2	
3 to 5 times	☐	3	
Twice	☐	4	
Once	☐	5	
Never	☐	6	0 points

3. The client gets one point for each box ticked in question 15.
4. Add up the client's points for questions 14 and 15 to get the BBVRS score. The client receives a score out of 7.

3. Poly-drug Use Scale (Questions 17a, 18a, 19a, 20a, 21a, 22a & 23a)

1. If the client has taken the drug the question refers to on one or more days in the last month, they score 1 point for that question.
2. If the client has not taken the drug the question refers to in the last month, they score 0 points for that question.
3. Add up the client's points for questions 17a, 18a, 19a, 20a, 21a, 22a, and 23a to get the polydrug score. The client receives a score out of 7.

4. Occasions of Drug Use Scale (ODUS - questions 17-23).

- This gives 7 separate totals for the client's reported occasions of use of each class of drug in the last month.
- If the client has not used a class of drugs in the last month, their total for that class is 0.

ODUS alcohol = Q17a x Q17b
ODUS opiates = Q18a x Q18b
ODUS cannabis = Q19a x Q19b
ODUS cocaine = Q20a x Q20b
ODUS amphetamines = Q21a x Q21b
ODUS tranquillisers = Q22a x Q22b
ODUS tobacco = Q23a x Q23b

5. Health Score (question 24)

The Health Score is simply the numbered code for the box ticked in Question 24.

6. Psychological Well-Being Scale (PWBS -question 27a-h).

PWBS score *= Q27a + Q27b + Q27c + Q27d + Q27e+ Q27f + Q27g + Q27h*

7. Social Functioning Scale (SFS - question 28-33).

- 'Not applicable' responses are possible for questions 29 –31. They are given the value '8', to indicate they are missing.
- For the purposes of calculating this score, all responses to questions 28 –33 that are *not* shown as being 'not applicable', are referred to as 'valid responses'.

a. If the client has given no 'Not applicable' responses:

SFS score *= Q28 + Q29 + Q30 + Q31 + Q32 + Q33*

b. If the client has given one 'Not applicable' response:

SFS score *= (sum of valid responses) X 1.2*

c. **If the client has given two 'Not applicable' responses:**

SFS score *= (sum of valid responses) X 1.5*

d. If the client has given three 'Not applicable' responses:

SFS score *= (sum of valid responses) X 2*

Appendix 5: Brief Treatment Outcome Measure

NSW ALCOHOL & OTHER DRUG TREATMENT SERVICES
BRIEF TREATMENT OUTCOME MEASURE (BTOM)
OPIOID MAINTENANCE PHARMACOTHERAPY

***Required for NSW Minimum Data Set**

*****Agency code: ☐☐☐☐☐☐ Agency Name:_____

*****Agency location: ☐☐☐☐☐ Area Health Service:_____

Date of interview: ☐☐/☐☐/☐☐☐☐ Interviewer: _____
(Please print)

*****Client code: ☐☐☐☐☐☐☐☐☐☐☐☐

Please note: correct date format in all instances is : dd/mm/yyyy

***Date of commencement of treatment: ☐☐/☐☐/☐☐☐☐**

BASELINE INTERVIEW ☐

___ MONTH FOLLOW-UP INTERVIEW‡ ☐

‡ *Please ensure "Client Code" matches that used for "Baseline Interview"*

For Clients Transferring Between Methadone/Buprenorphine Agencies

Client code at previous agency: ☐☐☐☐☐☐☐☐☐☐☐☐

Agency name/location of previous agency:
_____/_____

Length of Interview

Start time:_____ Finish time:_____ Total:_____(mins)

Tick only one box for each question, unless otherwise stated

SECTION A

The questions in this section provide us with some background information.

*****1. Are you

Male	☐	1
Female	☐	2
Not stated/inadequately described	☐	9

*****2.(a) What is your date of birth? ☐☐/☐☐/☐☐☐☐

(b) **Interviewer to answer***
Please indicate whether any component of the date of birth, i.e. day, month and/or year was estimated?

Estimated	☐	1
Not estimated	☐	2

*****3. Are you of Aboriginal or Torres Strait Islander origin?

Yes, Aboriginal	☐	1
Yes, Torres Strait Islander	☐	2
Yes, Aboriginal & Torres Strait Islander	☐	3
No	☐	4
Not stated	☐	9

*****4. In what country were you born?

Australia	☐	1101
Other	☐	

If other, please specify

_____

*****5. What language do you prefer to speak?

English	☐	19
Other	☐	

If other, please specify

_____

*****6. What is your main source of income?

Full-time employment	☐	01
Part-time employment	☐	02
Temporary benefit (e.g. sickness unemployment,)	☐	03
pension (e.g. aged, disability)	☐	04
Student allowance	☐	05
Dependant on others	☐	06
Retirement fund	☐	07
No income	☐	08
Other	☐	98
Not stated/not known/inadequately described	☐	99

*****7. Who do you live with?

Alone	☐	01
Spouse/partner	☐	02
Alone with child(ren)	☐	03
Spouse/partner and child(ren)	☐	04
Parent(s)	☐	05
Other relative(s)	☐	06
Friend(s)	☐	07
Friend(s)/parent(s)/relative(s) and children	☐	08
Other	☐	98
Not stated/not known/inadequately described	☐	99

*****8. Do you usually live in a

Rented house or flat (public or private)	☐	01
Privately owned house or flat	☐	02
Boarding house	☐	03
Hostel /supported accommodation services	☐	04
Psychiatric home/hospital	☐	05
Alcohol/other drug treatment residence	☐	06
Shelter/refuge	☐	07
Prison/detention centre	☐	08
Caravan on serviced site	☐	09
No usual residence/homeless	☐	10
Other	☐	98
Not known	☐	99

SECTION B

In this section you will be asked about your use of drugs and alcohol in the last 3 months, unless specified. *This does not include methadone maintenance treatment, but may include "street methadone" or "diverted doses".

*9. What drug has led you to seek treatment from this service?

Heroin	☐	1202
*Methadone (Street or diverted Methadone)	☐	1305
Other	☐	

If other, please specify _____

*10. How do/did you usually take this drug?

Ingest (eat, drink, swallow)	☐	1
Smoke	☐	2
Inject	☐	3
Sniff (powder)	☐	4
Inhale (vapour)	☐	5
Other	☐	8
Not stated/inadequately described	☐	9

Question 11.(a) to (e), asks about how you have been thinking and feeling about heroin/methadone*/other opioid in the last 3 months, even if you have not been using.

11.(a) Over the last 3 months did you ever think your use of this drug was out of control?

Never or almost never	☐	0
Sometimes	☐	1
Often	☐	2
Always or nearly always	☐	3

(b) Did the prospect of missing this drug make you very anxious or worried?

Never or almost never	☐	0
Sometimes	☐	1
Often	☐	2
Always or nearly always	☐	3

(c) Did you worry about your use of this drug?

Not at all	☐	0
A little	☐	1
Quite a lot	☐	2
A great deal	☐	3

(d) Do you wish you could stop?

Never or almost never	☐	0
Sometimes	☐	1
Often	☐	2
Always or nearly always	☐	3

(e) How difficult would you find it to stop or go without?

Not difficult	☐	0
Quite difficult	☐	1
Very difficult	☐	2
Impossible	☐	3

SDS SCORE ___/15

*****12. What other drugs or alcohol have caused you concern?

Please specify (one or more drugs, up to a maximum of 5)

1._____
2._____
3._____
4._____
5._____

*****13. Did you last inject/hit up any drug

in the last 3 months	☐	1	
more than 3 months ago but less than 12 months ago	☐	2	**Go to question 16**
12 months ago or more	☐	3	**Go to question 16**
never injected	☐	4	**Go to question 16**
Not stated/inadequately described	☐	9	

14. How many times in the <u>last 3 months</u> did you use a needle and syringe <u>after someone else had already used it</u> (including your sex partner and even if it was cleaned)?

More than 10 times	☐	1
6 to 10 times	☐	2
3 to 5 times	☐	3
Twice	☐	4
Once	☐	5
Never	☐	6

15. Please tell me if you have shared any of the following injecting equipment with anyone else in the last 3 months.
(Please circle either YES or NO for each question, a-f)

		1	0
a	Spoon	**YES**	**NO**
b	Water	**YES**	**NO**
c	Filter	**YES**	**NO**
d	Tourniquet	**YES**	**NO**
e	Drug solution/mix	**YES**	**NO**
f	Swabs	**YES**	**NO**

16. How many times have you overdosed in the last 3 months?

Please specify_____ times

The next seven questions are about the drugs and alcohol you have taken in the last month (that is, the last 30 days). Please refer to Charts 2 & 3, page 17 of this BTOM questionnaire.

17.(a) How many days in the last month did you drink alcohol? (beer, wine, spirits)

Please specify _____ days

(b) On average, how many standard drinks did you have on those days when you were drinking? (please refer to standard drinks chart if required)

Please specify _____ drinks

18.(a) How many days in the last month did you use heroin or another opioid-based drug? That is, morphine, pethidine, codeine or street methadone (not including legally obtained methadone).

Please specify _____ days

(b) On average, how many (hits / pills / smokes / oral street (diverted) methadone– **circle whichever is appropriate**) did you have on those days when you used an opioid-based drug?

Please specify _____ hits/pills/smokes/oral street methadone

19.(a) How many days in the last month did you use cannabis (marijuana, dope, grass, hash, pot)?

Please specify _____ days

(b) On average, how many (cones / joints – **circle whichever is appropriate**) did you have on those days when you used cannabis?

Please specify _____ cones/joints

20.(a) How many days in the last month did you use cocaine (coke)?

Please specify _____ days

(b) On average how many (hits / snorts / pipes – **circle whichever is appropriate**) did you have on those days when you used cocaine?

Please specify _____ hits/snorts/pipes

21.(a) How many days in the last month did you use amphetamines (speed, wiz, go-ee, ice)?

Please specify _____ days

(b) On average, how many (pills / snorts / hits / pipes **– circle whichever is appropriate**) did you have on those days when you did use amphetamines?

Please specify _____ pills/snorts/hits/pipes

22.(a) How many days in the last month did you use tranquilisers (benzos, valium, rohypnol)?

Please specify _____ days

(b) How many (pills / hits – **circle whichever is appropriate**) did you have on those days when you did use tranquilisers?

Please specify _____ pills/hits

23.(a) How many days in the last month did you use tobacco (cigarettes, cigars, pipe tobacco)?

Please specify _____ days

(b) How many (cigarettes / cigars / pipes - **circle whichever is appropriate**) did you have on those days when you did use tobacco?

Please specify _____ cigarettes/cigars/pipes

SECTION C

The questions in this section are about your general health and your psychological health.

24. In the last 3 months would you say your health was

Excellent	☐	1
Very good	☐	2
Good	☐	3
Fair	☐	4
Poor	☐	5

25. In the last 3 months (90 days), how many days have you spent in hospital?

Please specify _____ days

26.(a) Are you currently taking any psychiatric medication?

YES ☐ 1 NO ☐ 0

(b) If yes, please specify medication.

Antipsychotic	☐	1
Other	☐	2

If other, please specify _____

The next questions are about common nervous or psychological problems that many people experience. You are asked whether you have experienced these as significant problems. They are considered significant when you have them for two or more weeks, when they keep coming back, when they keep you from meeting your responsibilities, or they make you feel that you cannot go on.

27. In the last 3 months have you had significant problems with
(Please circle either YES or NO for each question, a-h)

		1	0
a	Feeling very trapped, lonely, sad, blue, depressed or hopeless about the future?	**YES**	**NO**
b	Having no energy and losing interest in work, school, friends, sex or other things you cared about?	**YES**	**NO**
c	Remembering, concentrating, making decisions, or having your mind go blank?	**YES**	**NO**
d	Feeling very shy, self-conscious, or uneasy about what people thought or were saying about you?	**YES**	**NO**
e	Thoughts that other people did not understand you or appreciate your situation?	**YES**	**NO**
f	Feeling easily annoyed, irritated, or having trouble controlling your temper?	**YES**	**NO**
g	Thoughts of ending your life?	**YES**	**NO**
h	Have you attempted to end your life?	**YES**	**NO**

SECTION D

The questions in this section concern the social aspects of your life over the last 3 months, (things like money, friends, etc.).

28. How often in the last 3 months have you had any money problems, including arguing about money or not having enough for food or housing?

Never or almost never	☐	0
Sometimes	☐	1
Often	☐	2
Always or nearly always	☐	3

29. How often in the last 3 months have you had conflict with your partner/spouse?
By conflict, I mean verbal abuse, serious argument or violence, not a routine difference of opinion.

Not applicable (that is, no partner)	☐	8
Never or almost never	☐	0
Sometimes	☐	1
Often	☐	2
Always or nearly always	☐	3

30. How often in the last 3 months have you had conflict with your relatives?

No contact with relatives	☐	8
Never or almost never	☐	0
Sometimes	☐	1
Often	☐	2
Always or nearly always	☐	3

31. How often in the last 3 months have you had conflict with your employer/school?

Not employed/not at school	☐	8
Never or almost never	☐	0
Sometimes	☐	1
Often	☐	2
Always or nearly always	☐	3

32. How much of the time over the last 3 months have you lived with anyone who uses heroin or other illicit opioids?

Do not live with a drug user	☐	0
Some of the time	☐	1
A lot of the time	☐	2
All or nearly all of the time	☐	3

33. How much of the time over the last 3 months have you spent with friends who don't use heroin or other illicit opioids?

Very often	☐	0
Often	☐	1
Sometimes	☐	2
Never	☐	3

34.(a) How many times in the past 3 months have you been arrested?

Please specify_____ times

(b) How many of these arrests were for offences allegedly committed in the past 3 months?

Please specify_____ arrests

35.(a) Have you had any involvement with Child Protection Services, (e.g. DOCS) in the past 3 months?

YES ☐ 1 **(Go to Qu. 35(b))** NO ☐ 0 **(Go to Qu. 36)**

(b) If yes, did you receive supportive services? YES ☐ 1 NO ☐ 0
(e.g. housing assistance, food or other services)

has a child been restored to your care? YES ☐ 1 NO ☐ 0

has a child been removed from your care? YES ☐ 1 NO ☐ 0

SECTION E TREATMENT SPECIFIC SECTION: OPIOID MAINTENANCE PHARMACOTHERAPY

The questions in this section apply only to those people currently receiving methadone or buprenorphine treatment. If dosing has not commenced, only answer questions 36-38, if information is known.

36. Who does/will prescribe your pharmacotherapy?

A doctor in a public clinic	☐	1
A doctor in a private clinic	☐	2
A doctor in a general practice	☐	3
A doctor in a correctional centre	☐	4

37. Do you/will you receive your dose in a

public clinic/hospital	☐	1
private clinic	☐	2
doctors surgery	☐	3
pharmacy	☐	4
correctional setting	☐	5

38. Who is/will be your case manager?

Staff member of a public clinic	☐	1
Staff member of a private clinic	☐	2
General practitioner	☐	3
Staff member of another service	☐	4
I have shared case management	☐	5
I don't have a case manager	☐	9

39. Are you currently receiving

Buprenorphine (Subutex)	☐	42
Methadone	☐	45

40.(a) What dose of methadone/buprenorphine did you last receive ?

Please specify_____MGS **(DO NOT USE MLS)**

(b) Do you feel this dose is

too high	☐	1
about right	☐	2
too low	☐	3

41. Is your methadone/buprenorphine dose currently

stable	☐	1
being increased	☐	2
being decreased	☐	3

42. To what extent are you satisfied with the treatment you are receiving at this agency?

Extremely satisfied	☐	4
Very satisfied	☐	3
Just Satisfied	☐	2
Not very satisfied	☐	1
Very unsatisfied	☐	0

If this is the Baseline BTOM, please complete Section F. Otherwise you have completed the BTOM. Please prepare a score summary sheet for clients file (see Appendix).

Section F

Complete the following section at first interview (i.e. baseline interview) only

*****Treatment Delivery Setting: ***(tick one box only)***

☐1 Non-residential/outpatient/community setting
☐2 Residential/inpatient setting
☐3 Home
☐4 Outreach setting
☐5 Correctional setting
☐6 Therapeutic community
☐8 Other

*****Main Treatment Type: ***(tick one box only)***

☐10 Counselling

Withdrawal management (detoxification)

☐21 Inpatient/residential withdrawal management
☐22 Outpatient withdrawal management

Rehabilitation Activities

☐31 Residential rehabilitation activities
☐32 Day program rehabilitation activities
☐40 Maintenance Pharmacotherapies

Consultation Activities

☐51 Inpatient consultation (for AHS internal use only)
☐52 Outpatient consultation (excluding withdrawal management)
☐60 Support and case management only
☐91 Assessment only
☐92 Information and education only
☐98 Other

*****Source of referral to treatment: ***(tick one box only)***

☐01 Self
☐02 Family member/friend
☐03 General practitioner
☐04 Medical officer / specialist
☐05 Psychiatric hospital
☐06 Other hospital
☐07 Residential community mental health care unit
☐08 Residential alcohol and other drug treatment agency
☐09 Other residential community care unit
☐10 Education institution
☐11 Non-residential community mental health centre
☐12 Non-residential alcohol and other drug treatment agency
☐13 Non-residential community health centre
☐14 Other non-health service agency
☐15 Police diversion
☐16 Court diversion
☐17 Other criminal justice setting
☐18 Workplace (EAP)
☐19 Family and child protection service
☐20 Needle and syringe program
☐21 Medically supervised injecting centre
☐98 Other
☐99 Not stated/inadequately described

*****Previous treatment: ***More than one box may be ticked.***

☐10 Counselling

Withdrawal management (detoxification)

☐21 Inpatient/residential withdrawal management
☐22 Outpatient withdrawal management

Rehabilitation Activities

☐31 Residential rehabilitation activities
☐32 Day program rehabilitation activities

Maintenance Pharmacotherapies

☐41 Naltrexone
☐42 Buprenorphine
☐44 Slow release oral morphine
☐45 Methadone
☐46 Acamprosate
☐47 Disulfiram
☐49 Other maintenance pharmacotherapies

Consultation Activities

☐51 Inpatient Consultation (for AHS internal use only)
☐52 Outpatient consultation (excluding withdrawal management)
☐60 Support and case management only
☐91 Assessment only
☐92 Information and education
☐98 Other
☐99 No previous treatment

NSW ALCOHOL & OTHER DRUG TREATMENT SERVICES
BRIEF TREATMENT OUTCOME MEASURE (BTOM)

Section G

Complete this section upon cessation of treatment only

Agency code: ☐☐☐☐☐ Agency Name:_____

Agency location: ☐☐☐☐☐ Area Health Service:_____

*****Client code: ☐☐☐☐☐☐☐☐☐☐☐☐

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*Date of commencement of treatment episode: ☐☐/☐☐/☐☐☐☐

*****Date of cessation of treatment episode: ☐☐/☐☐/☐☐☐☐

*****Reason for cessation of treatment episode: ***(tick one box only)***

☐01 Treatment completed
☐02 Transferred/referred to another service
☐03 Left without notice
☐04 Left against advice
☐05 Left involuntary
☐06 Moved out of area
☐07 Sanctioned by drug court/court diversion program
☐08 Imprisoned, other than through court sanction
☐09 Released from prison
☐10 Died
☐11 Ceased to participate upon expiation
☐98 Other
☐99 Not stated/inadequately described

*****Referral to another service: ***(tick one box only)***

☐03 General practitioner
☐04 Medical officer / specialist
☐05 Psychiatric hospital
☐06 Other hospital
☐07 Residential community mental health care unit
☐08 Residential alcohol and other drug treatment agency
☐09 Other residential community care unit
☐10 Education institution
☐11 Non-residential community mental health centre
☐12 Non-residential alcohol and other drug treatment agency
☐13 Non-residential community health centre
☐14 Other non-health service agency
☐18 Workplace (EAP)
☐19 Family and child protection service
☐97 No referral
☐98 Other
☐99 Not stated/inadequately described

Other treatment types: ***More than one box may be ticked. Do NOT include the "Main treatment types"

☐10 Counselling

Withdrawal management (detoxification)

☐21 Inpatient/residential withdrawal management

☐22 Outpatient withdrawal management

Rehabilitation Activities

☐31 Residential rehabilitation activities

☐32 Day program rehabilitation activities

Maintenance Pharmacotherapies

☐41 Naltrexone

☐42 Buprenorphine

☐44 Slow release oral morphine

☐45 Methadone

☐46 Acamprosate

☐47 Disulfiram

☐49 Other maintenance pharmacotherapies

Consultation Activities

☐51 Inpatient consultation

☐52 Outpatient consultation (excluding withdrawal management)

☐98 Other

☐**99** **No other services provided**

Appendix

Chart 1. Three Month Chart: Days in the past 3 months

Every day	90	3 times a month	9
6 times a week	77	Twice a month	6
5 times a week	64	Five days	5
4 times a week	51	Four days	4
3 times a week	39	Three days	3
Twice a week	26	Two days	2
Once a week	13	One day only	1
4 times a month	12		

Chart 2. One Month Chart: Days of estimated drug/alcohol use in the past 1 month

Every day	30	Twice a week	9
6 times a week	26	Once a week	4
5 times a week	22	Three days	3
4 times a week	17	Two days	2
3 times a week	13	One day only	1
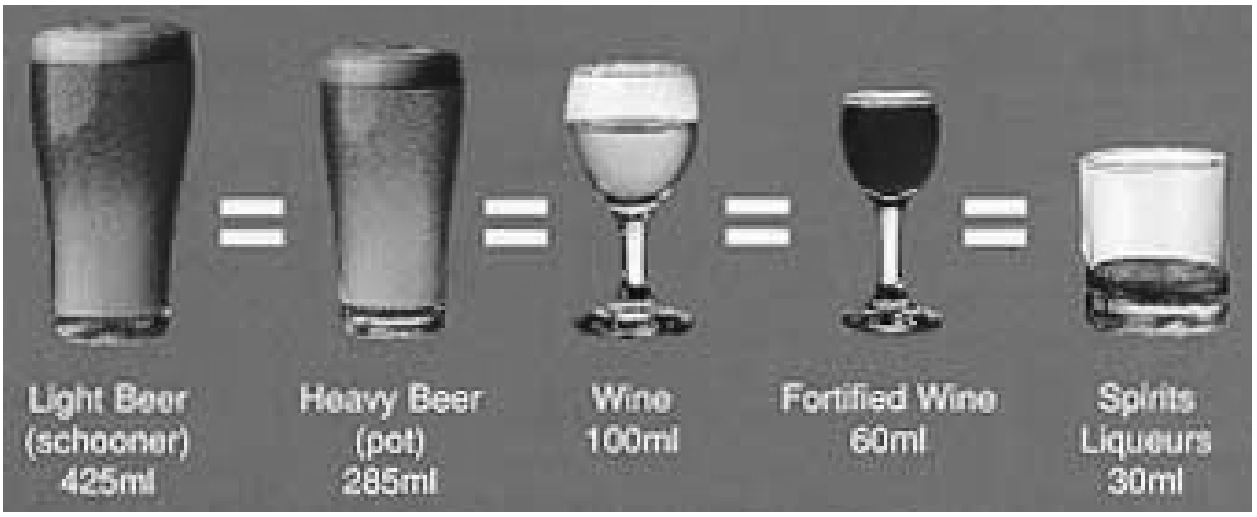
Chart 3. Standard Drink Chart (for use in Question 17)