



Department of Health and Ageing

Analysis of proposed MBS items for Addiction Medicine

Consultant Report

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This report is a contracted technical report for use by the Medical Services Advisory Committee (MSAC) to inform its deliberations. MSAC is an independent committee which has been established to provide advice to the Minister for Health and Ageing on the strength of evidence available on new and existing medical technologies and procedures in terms of their safety, effectiveness and cost-effectiveness. This advice will help to inform government decisions about which medical services should attract funding under Medicare.

MSAC's advice does not necessarily reflect the views of all individuals who participated in the MSAC evaluation.

This report was prepared for MSAC by Aspex Consulting. The report was commissioned by the Department of Health and Ageing on behalf of MSAC.

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List of Abbreviations

AMC	Australian Medical Council
AODTS	(National) Alcohol and Other Drug Treatment Services
BEACH	Bettering Evaluation and Care of Health Study
CBT	Cognitive-Behavioural Therapy
CEA	Cost Effectiveness Analysis
CI	Confidence Interval
CRA	Community Reinforcement Approach
DALY	Disability-Adjusted Life Years
DAP	Decision Analytic Protocol
FACHAM	Fellow of the Australasian Chapter of Addiction Medicine
GP	General Practitioner
HIV	Human Immunodeficiency Virus
MBS	Medical Benefits Schedule
MSAC	Medical Services Advisory Committee
NAODTS	National Alcohol and Other Drug Treatment Services
NHMRC	National Health & Medical Research Council
NOPSAD	National Opioid Pharmacotherapy Statistics Annual Data
NSMHW	National Survey of Mental Health and Wellbeing
PBS	Pharmaceutical Benefits Scheme
RACP	Royal Australasian College of Physicians
TGA	Therapeutic Goods Administration

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1 Executive Summary

1.1 Abstract

A growing number of Australians are reporting symptoms consistent with substance dependence and substance abuse. These symptoms are the primary focus of the field of addiction medicine. The field of addiction medicine has now been recognised to be sufficiently complex to require specialist training. Specialists are able to advise and support general practitioners, in addition to undertaking more comprehensive assessments and offering a range of combination therapies for complex, medically unstable, or behaviourally challenging patients.

The primary contribution of addiction medicine specialists is their capacity to identify the complex range of needs for people experiencing addiction related problems, and implement or otherwise coordinate an appropriate combination of evidence-based interventions to prevent dependence, promote safe withdrawal, assist recovery, and minimise the likelihood of relapse. The clinical safety and effectiveness of these interventions has already been determined. The beneficial claim of addiction medicine specialists is their capacity to deliver the most appropriate combination of targeted, evidence-based interventions in an efficient and effective manner. This has been the focus of enquiry for the current application.

Without addiction medicine specialists, services would be required from a range of different medical practitioners, placing patients at greater risk of relapse or complications due to delays in the time to access treatment. Patients would also face greater out-of-pocket costs, and potential fragmentation of service delivery due to the multitude of service providers required for safe and effective care. Services provided by different specialists may also result in greater costs of service delivery to the MBS. Addiction medicine specialists are currently remunerated through the MBS at levels that are equivalent, or below, medical practitioners who have undergone no specialty training. The addiction medicine specialty workforce is in decline and is experiencing difficulty attracting new trainees. MBS reimbursement is sought to recognise the level of professional training and clinical contribution provided by addiction medicine specialists. Appropriate reimbursement through a recommended suite of MBS items will enable an equivalent standard of service delivery to that currently provided in the public sector, and provide incentives for future growth of the specialist workforce, enabling greater access to specialty services for consumers.

It is proposed that a structure for new MBS items reflects the service model for addiction medicine including two items for consultations (assessment and patient review) that is a modified form of consultant physician consultations, two items for complex care and management planning, eight items for case conferencing, two items for telemedicine, and one item for group therapy.

The impact of the proposed new structure suggests annual outlays for addiction medicine of \$12.535m in 2015, an increase of \$4.359m based on a weighted average mix of the proposed new MBS items.

The increase in outlays under the new MBS items remains the most cost effective option compared with the provision of services by the next most appropriate service provider - psychiatrists. Forecast MBS outlays using psychiatry consultation rates is \$15.573m by 2015. This indicates a \$3.038m (19.5%) cost advantage over psychiatry in approving the proposed new MBS items.

The estimated out-of-pocket costs to patients by 2015, suggests ~\$2.400m for addiction medicine, compared to out-of-pocket costs for psychiatry of \$4.650m. This is a difference of ~\$2.250m, 94% higher for psychiatry than for addiction medicine.

It is recommended that MSAC support the creation of a new set of professional consultation items for addiction medicine specialists as proposed.

1.2 Purpose of application

In October 2010, an application was received from the Australasian Chapter of Addiction Medicine, requesting Medicare Benefits Schedule (MBS) listing of items for this group of specialists.

Addiction medicine specialists propose to implement an established range of evidence based interventions for people who have (or are at risk of developing) substance use disorders or other forms of addiction.

This application represents an extension of use for current interventions provided to patients with addiction problems. Historically, the needs of patients with substance use disorders were addressed by general practitioners in consultation with a variety of different medical specialties. Addiction medicine was formally recognised by the Australian Government in 2009 as a new specialty with the capacity to address the comprehensive bio-psycho-social needs of patients with substance use disorder across the continuum of care. Thus, addiction medicine specialists are now available to offer advice and support, specialist patient consultation, intensive treatment of acute conditions, and ongoing management of complex and 'challenging' patients with substance use disorders.

General practitioners will continue to provide the majority of patient interventions. Specialists in other areas will continue to be required for patients with highly complex and/or specific needs.

The medical conditions being addressed by this new specialty area include (but are not necessarily limited to) patients with substance use disorders arising from legally or illegally obtained alcohol, opioids, cannabis, stimulants, hallucinogens and benzodiazepines.

1.3 Background

MSAC has not previously assessed the introduction of (non-procedural) MBS items for a new medical specialty such as Addiction Medicine.

The professional value and contribution of this specialty was formally recognised by the Australian Medical Council in 2007 followed by Australian Government recognition in 2009. Accordingly, the evidence underlying the many interventions provided by these specialists has been acknowledged and was not considered to be the primary focus of the current application. This report has focused instead upon the evidence to support the case that specialists in addiction medicine:

- **Are trained to meet a need** for specialist services;
- **Are trained at a more advanced level** than other practitioners;
- **Add value to the practice of other clinicians** treating patients;
- **Demonstrate equal or better outcomes** for management of complex patients;
- **Require MBS items to achieve** an equivalent standard of care in the private sector; and
- **Are more cost effective** than services provided by alternative medical specialists.

1.4 Prerequisites to implementation of any funding advice

When the Decision Analytic Protocol (DAP) was finalised in June 2012, MSAC noted that any new MBS items would require a referral in accordance with the MBS G6.1 *Referral of Patients to Specialist or Consultant Physician*. It was also noted that any new MBS items would apply only to medical practitioners who were eligible for registration as addiction medicine specialists. Eligible registrants will have completed an approved course of training and been awarded a Fellowship of the Australasian Chapter of Addiction Medicine (FACHAM).

1.5 Proposal for public funding

It is proposed that a new Group of MBS items would be introduced for addiction medicine, comprising the range of items in the dot points below (also see Chapter 6). These items have been developed in consultation with the applicant. The proposed items are **equivalent to** MBS items for:

- Consultant physician referred consultation (equivalent to item 110) and subsequent consultation (equivalent to item 116). However, the rules applying to when these items

could be billed by an addiction medicine specialist (initial versus subsequent) would differ from the current consultant physician items in order to better reflect the model of care for many addiction medicine patients;

- Referred complex patient treatment and management planning (equivalent to consultant physician MBS item 132) and review item 133;
- Time-tiered multi-disciplinary case conference co-ordination and participation (similar to consultant physician MBS case conferencing items 820, 822, 823, 825, 826, and 828);
- Time-based items for telehealth (equivalent to consultant physician MBS items 112 and 114 for telehealth (Option 1), or psychiatry telehealth item 288 (Option 2)); and
- One item for group therapy (similar to psychiatrist MBS item 342 for group therapy).

1.6 Consumer Impact Statement

In relation to consumer impact, this assessment report is based on qualitative reports that patients will benefit from the new MBS items for addiction medicine because:

- They will allow delivery of the same standard of care available in the public sector;
- They will meet the needs of patients who are unwilling to attend public clinics;
- They will promote workforce development and increase access to services for patients;
- They will support the capacity of general practitioners to deliver effective care; and
- There will be less out-of-pocket costs, and lower overall costs compared with other specialists treating substance use disorders in the private sector.

1.7 Proposed intervention's place in clinical management

The majority of patients with a substance-use disorder, or other addiction, will present to general practice for assessment and treatment. Evidence from available literature and specialist consultation indicates that these patients:

- Can be medically, psychologically, and behaviourally unstable as a result of recent or ongoing substance use or other compulsive behaviour;
- May present with a range of medical and psychiatric comorbidities and complications of substance abuse (e.g. viral hepatitis, HIV infection, injecting related infections, anxiety, depression);
- May have a number of complex interpersonal and social issues due to the impact of addiction related behaviour upon family, friends, and others resulting in unstable living arrangements, difficulty maintaining basic nutrition and personal care, inability to achieve or sustain productive employment, and financial stress;
- May require assistance with a range of medico-legal issues arising from episodes of antisocial behaviour;
- Face significant levels of social stigma resulting in a reticence to present for medical treatment, discuss patterns of substance abuse, and/or engage in an ongoing treatment plan; and/or

- Are likely to experience a chronic pattern of substance abuse-withdrawal or other addiction related behaviours over time.

Addiction medicine specialists play a role in 'stepped care' arrangements with general practice, providing practitioner advice, specialist assessment and consultation, intensive treatment of acute conditions, and/or ongoing management of complex patients. Specialists are trained to provide a number of services including (but not limited to):

- Complex bio-psycho-social assessment of patients experiencing or at risk of experiencing addiction;
- Inpatient or ambulatory withdrawal management for a range of substances such as alcohol, opioids, stimulants, cannabis and benzodiazepines;
- Motivational enhancement and psychological interventions such as cognitive behavioural and/or brief therapeutic interventions for addictions relating to substance abuse, problem gambling etc.;
- Management of a comprehensive range of medical and psychiatric co-morbidities associated with addiction; and
- Multi-disciplinary leadership and co-ordination across a range of medical, psychological, social welfare and legal services.

Thus, addiction medicine is now a recognised specialty area that is available to general practitioners in the same way that other specialties may be called upon for advice and or management of complex medical conditions. The clinical algorithm is therefore equivalent to other specialty areas whereby the majority of patients are managed in general practice, and acute or complex patients are referred for specialist consultation and/or ongoing management as appropriate. These issues are discussed further in Chapter 3.

1.8 Other options for MSAC consideration

For physician-equivalent items relating to initial consultation (equivalent to MBS item 110) and subsequent attendance (equivalent to MBS item 116), two options have been proposed. Each of these options has been considered more appropriate to the model of care provided by addiction medicine specialists compared with the application of items 110 and 116, as it is estimated that up to 30% of all initial consultations could involve stabilisation of patients who are unable to participate in a detailed assessment process.

- **OPTION 1** for physician-equivalent consultations involves:
 - ▶ An MBS item for '**detailed assessment**', rather than 'initial attendance', at the equivalent rate of MBS item 110. This would be claimed on one occasion (but at any time) during a single episode of patient care.
 - ▶ An MBS item for '**patient assessment or review**', rather than 'subsequent attendance', at the equivalent rate of MBS item 116. This could be claimed on the first or any subsequent occasion of patient contact during a single episode of care.
- **OPTION 2** for physician-equivalent consultations involves four 'time-tiered' items, allowing specialists to claim for actual time spent with a patient on any individual occasion of service. This would be similar to the range of current MBS item numbers available to general practitioners (MBS Group A1) and psychiatrists (MBS Group A8) but the price

would be set so that it did not exceed the maximum available to other consultant physicians (MBS Group A4), and include:

- ▶ An MBS item for consultations of ≤ 15 minutes duration (priced at 75% of the value of MBS item 23 for general practitioner consultations up to 20 minutes duration);
- ▶ An MBS item for consultations of > 15 but ≤ 30 minutes duration (equivalent to MBS item 116);
- ▶ An MBS item for consultations of > 30 but ≤ 45 minutes duration (priced *between* MBS items 116 and 110); and
- ▶ An MBS item for consultations of > 45 minutes duration (equivalent to MBS item 110).

Under each of these options, a set of time-tiered multi-disciplinary case conferencing items is envisaged, similar to existing case conferencing items for consultant physicians. Case conferencing items would be structured so that a higher time-tiered rate was available for specialists who co-ordinate and subsequently lead (i.e. organise and chair) a case conference (claimable only for the duration of the case conference). A reduced rate of reimbursement (at 80%) would be attached to the case conferencing items for specialists who only participate in (i.e. not lead) a case conference (claimable only for the duration of the case conference). These alternatives are discussed further in Chapter 6.

1.9 Comparator to the proposed intervention

In the absence of addiction medicine specialists, patients would have access to the same or similar interventions provided across a range of different specialists.

Some general practitioners have undertaken specific training to prescribe and monitor treatment for opioid withdrawal using morphine, buprenorphine and naloxone. However, this training does not extend to managing the range of medical and psychiatric complications or co-morbidities, nor the social and medico-legal issues associated with the management of opioid and other types of addiction. Referrals to different specialists would therefore be dependent upon the knowledge of individual general practitioners and the availability of individual specialists and other services for referral.

The closest specialist group treating patients with substance use and other addiction related disorders would be psychiatrists; particularly those who have undertaken advanced training to become members of the Section of Addiction Psychiatry. The advanced training program is similar to training undertaken by FACHAM for the first two years. Thus psychiatry has been used as the most appropriate comparator for the proposed range of interventions provided by addiction medicine specialists. Comparator specialty options are discussed in further detail in Chapter 4.

1.10 Comparative safety

There is strong evidence for the safety of pharmacotherapy and other interventions for addiction related conditions in the scientific literature.

There is a more limited body of evidence examining the safety of clinical interventions provided by different medical specialists. Qualitative reports from specialists and descriptive

reports in the peer-reviewed literature consistently emphasise that the relative safety of interventions provided to patients with addiction-related problems requires:

- Knowledge of the wide range of risks associated with ongoing substance use and/or withdrawal; in addition to
- Capacity to intervene in a manner that reduces the likelihood of those risks developing or impacting upon patients and others in the community.

Thus from the available evidence, services provided by addiction medicine specialists are possibly safer and more effective than the same services provided across a range of different specialists. For example, addiction medicine specialists understand the comprehensive range of risks associated with ongoing substance use and withdrawal, are able to manage withdrawal states in a variety of treatment settings, have competencies to engage patients and perform a variety of medical and psychological interventions, and are able to identify and co-ordinate a range of different medical and social services to maximise the likelihood of treatment success and prevention of relapse.

1.11 Comparative effectiveness

The literature demonstrates clear evidence for the effectiveness of a range of interventions for addiction-related conditions. Evidence also indicates that an appropriate mix of interventions is required in order to maximise the likelihood of success for patients with addiction-related conditions. A number of therapeutic combinations have been demonstrated to result in more successful treatment outcomes, for example:

- Pharmacotherapy for methadone maintenance with psychological counselling;
- Pharmacotherapy for smoking cessation with behavioural intervention; and
- Combination psychological therapies (counselling and coping skills training) for cannabis dependence.

Outcomes of other interventions have been identified to be more successful when delivered in specialist (rather than primary care) settings, such as:

- Substance detoxification;
- Cognitive behavioural therapy;
- Contingency management interventions;
- Community reinforcement approaches; and
- Motivational enhancement therapy.

Thus there is no evidence that outcomes of interventions provided by addiction medicine specialists would be any worse than the same interventions provided by other specialists. Rather, available evidence indicates that specialists in addiction medicine are more likely provide or otherwise co-ordinate the best mix of evidence based interventions, in the right environment, to

- Facilitate identification of actual or potential addiction-related problems;
- Manage withdrawal states;

- Identify and treat medical and psychiatric comorbidities and complications arising from substance use or other addictive behaviours;
- Arrange services to address the broader social needs of patients with addiction problems; and
- Provide interventions to maintain long-term behaviour and minimise the likelihood of relapse.

It is acknowledged, that in the absence of specific comparisons between addiction medicine specialists and other specialists providing services to the same group of patients, there remains some uncertainty with this judgement.

1.12 Economic evaluation

The economic evaluation of the addiction medicine MBS items has been based on a *relative cost effectiveness analysis (CEA)*. However, the application of a conventional CEA is problematic as there was no available data on the clinical outcomes of consultations by addiction medicine specialists *vis a vis* the comparator being psychiatry.

Therefore, qualitative evidence based on the AMC recognition of addiction medicine as a specialty indicates that addiction medicine specialists bring a more comprehensive set of skills for substance abuse and addiction problems, and therefore provide superior, or at least equivalent, clinical outcomes for patients (Section 4.2). On this basis, a cost effectiveness analysis should only need to demonstrate costs at or below the alternative psychiatry costs to demonstrate overall superior cost effectiveness.

1.12.1 MODELLED COMPARATIVE ANALYSIS

The current (2012) MBS outlays for addiction medicine are estimated to be ~\$8.398m. Due to forecast workforce reductions between 2012 and 2015, it is estimated that outlays would decrease to \$8.176m by 2015.

The forecast (2015) MBS outlays for addiction medicine, is ~\$12.535m noting that this includes rate increases to consultant physician levels, changes to complex care, case conferencing and a modest fall in claims due to expected workforce reductions. This suggests that there would be an *increase* in MBS outlays of ~\$4.137m based on the difference between actual 2012 and forecast 2015, **or** ~\$4.359m based on the forecast outlays in 2015 using the current mix of MBS items and workforce arrangements.

The forecast MBS outlays using psychiatry consultation rates is ~\$15.573m. This indicates there is a \$3.038m cost advantage, or 19.5% for addiction medicine over psychiatry. This suggests that even with an increase in payment rates for addiction medicine specialists, a marked cost advantage is maintained, albeit at a much lower level.

The difference is due mainly to the lower payment rates for patient assessment and review consultation items between addiction medicine and psychiatry. There are no differences in rates for complex care management or case conferencing.

Importantly, the estimated out-of-pocket costs for addiction medicine patients, using historical differences, are ~\$2.400m, compared to out-of-pocket costs for psychiatry of \$4.650m. This is a difference of ~\$2.250m, or 94% higher for psychiatry than for addiction medicine.

The assumed mix of consultations between addiction medicine and psychiatry are the same; namely:

- Assessment (11.85%);
- Patient review (80.14%); and
- Complex Care Planning & Case Conferencing (8.01%).

Sensitivity analysis of the assumed mix of billed items indicates that:

- An increase of 10% in assessments and a commensurate decrease in patient reviews will impact on the costs by \$102k in 2015 or 0.9%; and
- An increase of 10% in complex care and case conferences and a commensurate decrease in patient reviews would be almost cost neutral.

This suggests that a 10% shift in mix has negligible impact on outlays to the MBS.

1.13 Financial/budgetary impacts

It is estimated that 149,742 occasions of MBS billed service are currently provided per annum (2012) for addiction medicine. Specific data on the frequency of use per patient per annum were unavailable from the MBS information (because patient profiles cannot be ascertained from the varied addiction medicine billing mix across the current range of non-specific MBS professional attendance items). However, the overall average of assessments to patient treatments is one assessment to 8.6 treatments. Nevertheless, this crude ratio masks a variety of models of care ranging from regular (monthly contact) to single event assessments following a GP referral.

Current (2013 estimate) MBS fees **charged** by addiction medicine specialists approximate \$9.74m per annum. At a consultant physician equivalent rate MBS fees would approximate \$12.691m, and at a psychiatry equivalent rate MBS fees would approximate \$17.636m per annum.

Significant differences in out-of-pocket expenses were observed across the three scenarios. Patients receiving current services, and patients receiving services under a psychiatry equivalent level of reimbursement, had higher out-of-pocket costs, compared with those receiving services under a physician-equivalent level of MBS reimbursement.

It was assumed that the availability of a consistent MBS fee across all addiction medicine specialists would provide an incentive for additional work to take place in the private sector. Based upon feedback from specialists, this was estimated to be up to an additional 2 sessions (1 day) per week. When modelled together with the projected decline in workforce over a three-year period (2013-2015), it was estimated that around 11,830 additional episodes of care could be delivered, at a total cost of \$0.920m to the MBS.

There was insufficient data to identify or model the impact of any changes in MBS item numbers upon the Medicare Safety Net or Extended Medicare Safety Net.

Thus, under a physician equivalent MBS item (adjusting for anticipated increases in private sector employment and identified reductions in the specialist workforce), a net increase to the MBS budget of \$3.854m is expected in 2013, \$4.261m in 2014 and \$4.359m in 2015 (indexed) has been forecast.

1.14 Key Issues for MSAC

1.14.1 MAIN ISSUES RELATING TO THE PROPOSED ELIGIBLE POPULATION

The proposed eligible population that is likely to benefit from addiction medicine services can only be estimated from available population data. Despite the estimated number of Australians reporting symptoms and behaviours consistent with substance use disorders, the actual number of individuals who recognise these symptoms as problematic and subsequently seek treatment remains unknown. In addition, non-medical practitioners in the community provide many services for people with drug and alcohol problems. Nevertheless, some attempt to estimate the potential demand has been made, using the best available information from the number of overall presentations and the number of medical occasions of service provided throughout one Australian jurisdiction.

Main issues around the evidence and conclusions for safety

The safety of pharmacotherapies listed on the Pharmaceutical Benefits Scheme (PBS) and prescribed to treat patients with addiction related problems has been previously established. The safety of psychosocial interventions is more difficult to ascertain, as it is dependent upon the appropriate training and qualifications of those delivering specific interventions. Training and ongoing professional accreditation remains within the purview of individual medical Colleges. Addiction medicine specialists are trained and professionally accredited to deliver a wide range of psychosocial interventions. Thus, there is no evidence that the safety of pharmacotherapy or psychosocial interventions will be any worse than the safety of the same interventions delivered by other appropriately qualified medical practitioners.

Main issues around the evidence and conclusions for clinical effectiveness

The effectiveness of pharmacotherapies listed on the PBS and prescribed to treat patients with addiction related problems has also been previously established. The clinical effectiveness of individual pharmacotherapies and other psychosocial interventions is evident across a range of systematic reviews. Importantly, the scientific literature highlights the enhanced effectiveness of combining pharmacotherapy with behavioural and other psychological interventions delivered in specialist treatment environments. Addiction medicine specialists are well placed to deliver these services. Thus there is no evidence that the clinical effectiveness of interventions to address addiction related problems by addiction medicine specialists would be any worse than the effectiveness of the same interventions provided by alternative medical specialties.

Other important clinical issues and areas of clinical uncertainty

It is acknowledged that the specialty of addiction medicine has only recently been recognised. As such, there has been limited time to develop and implement specific randomised controlled trials examining the safety and effectiveness of interventions delivered by this group of specialists, compared with interventions provided by other specialists.

Main economic issues and areas of uncertainty

Economic analysis has relied upon an examination of the relative cost efficiency of services provided by addiction medicine specialists funded under current MBS arrangements, versus physician-equivalent benefits, and psychiatry-equivalent benefits. In the absence of specific studies focusing upon relative differences in clinical outcomes achieved by this group of specialists, analysis has relied upon the assumption that clinical outcomes will be no worse. A comparison of costs has occurred within this context. It is acknowledged that no better information is currently available to inform the economic analysis.

1.15 Other significant factors

Several additional factors are worthy of consideration in relation to the current submission by addiction medicine specialists for new MBS items, namely that:

- Current funding arrangements available through the MBS present inequities in access to reimbursement of services by different addiction medicine specialists: Many specialists have dual fellowship with another medical college and can access items available to other medical practitioners in order to achieve a higher rebate for services provided to patients. Other specialists who only have fellowship with the Chapter of Addiction Medicine are unable to access these levels of rebate for their patients and thus receive reimbursement for services equivalent to medical practitioners who have undergone no specialty training.
- Current funding arrangements available through the MBS present inequities in reimbursement arrangements between addiction medicine specialists and other specialists recognised by the Australian Medical Council and the Australian Government.
- Current funding arrangements have been reported to be a disincentive for trainees considering a future in addiction medicine. Inequitable reimbursement arrangements compared to other specialty areas has been reported to limit employment opportunities largely to public sector services. The capacity to engage in full scope of practice in the private sector has been limited. Workforce numbers are in decline and attraction of new trainees is considered important to maintain the viability and sustainability of the speciality area.

1.16 Summary of consideration and rationale for MSAC's advice

In summary, despite difficulties identifying accurate estimates of community demand for services, there appears to be significant demand for services to address addiction problems. The interventions provided by addiction medicine specialists appear to be no worse in terms

of safety or clinical effectiveness than the same services provided across a range of alternative medical specialists. Financial modelling indicates that any services provided by addiction medicine specialists are likely to be more cost-effective and result in lower out-of-pocket costs for patients, compared with than the same services provided by other medical specialists.

1.17 Proposed new items for addiction medicine specialists

After considering the strength of the available evidence in relation to the demand, safety, effectiveness and anticipated cost of MBS items for addiction medicine, this contracted assessment concludes that the MBS item descriptors could be similar to those detailed below.

To ensure policy consistency between existing MBS item groups, it is also advised that Extended Medicare Safety Net (EMSN) capping be applied to the new addiction medicine MBS Group, at a suitable time after MBS listing of the new items. Given both houses of parliament will need to vote on and pass this part of the listing, the EMSN capping may not occur until early in 2014 (in the context of the 2013 federal election and associated parliamentary shut-down). The financial risk of initially listing new professional attendance items in the absence of EMSN capping has been assessed as low, given addiction medicine specialists, to date, have not been associated with excessive out-of-pocket costs.

It is also advised that a rule be applied to the addiction medicine telehealth items, similar to current rule 2.5.1 (Limitation of items 112 to 114) within Group A4 of the General Medical Services Table, as follows:

- Items 112, 113 and 114 do not apply if the patient, specialist or physician travels to a place to satisfy the requirement in:
 - (a) for item 112—sub-subparagraph (d) (i) (B) of the item; and
 - (b) for items 113 and 114—sub-subparagraph (c) (i) (B) of the item.

(This rule is intended to prevent participants from abusing the telehealth items.)

The recommendation is based on:

- Consistency with existing MBS item benefits structure for like professional consultation specialists;
- Parity of benefits with equivalent specialist professional consultations, (with reduced disincentives for specialty training in addiction medicine);
- Administrative simplicity for the specialists in not time recording the majority of consultations;
- Relative cost effectiveness against time-tiered structure; and
- Relative cost effectiveness against the next most appropriate clinical alternative.

MBS item descriptors should be similar to those detailed below (which reflect the corresponding items for consultant physicians):

OPTION 1 (Recommended)

Item descriptors for physician-equivalent MBS consultations

ADDICTION MEDICINE SPECIALIST, REFERRED ASSESSMENT		
<u>MBS Item 6018</u>		
Professional attendance by an addiction medicine addiction medicine specialist in his or her specialty, where the patient is referred to him or her by a referring medical practitioner.		
Detailed assessment provided once in a single course of treatment, provided at any point during that course of treatment.		
Fee: \$150.90	Benefit: 75% = \$113.20	85% = \$128.30
ADDICTION MEDICINE SPECIALIST, REFERRED SHORTER ASSESSMENT OR PATIENT REVIEW		
<u>MBS Item 6019</u>		
Patient assessment prior to or following a detailed assessment under item 6018 in a single course of treatment, or following an initial complex treatment and management plan under item 6023 or following a review of that plan under item 6024 in a single course of treatment.		
Fee: \$75.50	Benefit: 75% = \$56.65	85% = \$64.20

OPTION 2 (Alternative)

Item descriptors for time-tiered consultation items

Category 1 – Professional attendances		
<u>MBS Item 6018</u>		
Professional attendance by an addiction medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an attendance of not more than 15 minutes duration		
Fee: \$42.71	Benefit: 75% = \$32.03	85% = \$36.30
<u>MBS Item 6019</u>		
Professional attendance by an addiction medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an attendance of more than 15 minutes, but not more than 30 minutes duration		
Fee: \$75.50	Benefit: 75% = \$56.65	85% = \$64.20
<u>MBS Item 6020</u>		
Professional attendance by an addiction medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an attendance of more than 30 minutes, but not more than 45 minutes duration		
Fee: \$113.29	Benefit: 75% = \$84.97	85% = \$96.30
<u>MBS Item 6021</u>		
Professional attendance by an addiction medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an attendance of more than 45 minutes duration		
Fee: \$150.90	Benefit: 75% = \$113.20	85% = \$128.30

Proposed items for complex treatment and management planning (which would sit under Option 1 or 2 above)

ADDICTION MEDICINE SPECIALIST, REFERRED COMPLEX PATIENT TREATMENT AND MANAGEMENT PLAN - SURGERY OR HOSPITAL

MBS Item 6023

Professional attendance of at least 45 minutes duration for an initial assessment of a patient with at least two morbidities, where the patient is referred by a referring practitioner, and where:

- a) assessment is undertaken that covers:
- a comprehensive history, including psychosocial history and medication review;
 - comprehensive multi or detailed single organ system assessment;
 - the formulation of differential diagnoses; and
- b) a consultant physician treatment and management plan of significant complexity is developed and provided to the referring practitioner that involves:
- an opinion on diagnosis and risk assessment
 - treatment options and decisions
 - medication recommendations

Not being an attendance on a patient in respect of whom, an attendance under items 104, 110, 6018 or 6019 has been received on the same day by the same addiction medicine addiction medicine specialist.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been made under this item or for item 6018 for attendance by the same addiction medicine addiction medicine specialist.

Fee: \$263.90 Benefit: 75% = \$197.95 85% = \$224.35

ADDICTION MEDICINE SPECIALIST, REVIEW OF REFERRED COMPLEX PATIENT TREATMENT AND MANAGEMENT PLAN - SURGERY OR HOSPITAL

MBS Item 6024

Professional attendance of at least 20 minutes duration subsequent to the first attendance in a single course of treatment for a review of a patient with at least two morbidities where:

- a) a review is undertaken that covers:
- review of initial presenting problem/s and results of diagnostic investigations
 - review of responses to treatment and medication plans initiated at time of initial consultation comprehensive multi or detailed single organ system assessment,
 - review of original and differential diagnoses; and
- b) a modified consultant physician treatment and management plan is provided to the referring practitioner that involves, where appropriate:
- a revised opinion on the diagnosis and risk assessment
 - treatment options and decisions
 - revised medication recommendations

Not being an attendance on a patient in respect of whom, an attendance under item 104, 110, 6018 or 6019 has been received on the same day by the same addiction medicine specialist.

Being an attendance on a patient in respect of whom, in the preceding 12 months, payment has been made under item 6023 by the same addiction medicine addiction medicine specialist, payable no more than twice in any 12-month period.

Fee: \$132.10 Benefit: 75% = \$99.10 85% = \$112.30

Proposed descriptors for multidisciplinary case conferencing items (which would sit under the first or second option)

<p>MULTIDISCIPLINARY CASE CONFERENCE ORGANISATION AND CHAIR – ADDICTION MEDICINE SPECIALIST</p> <p><u>MBS Item 6028</u></p> <p>Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to ORGANISE AND CHAIR A COMMUNITY CASE CONFERENCE of up to 15 minutes, with a multidisciplinary team of at least three other formal care providers of different disciplines.</p> <p>Fee: \$42.71 Benefit: 75% = \$32.03 85% = \$36.30</p> <p><u>MBS Item 6029</u></p> <p>Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to ORGANISE AND CHAIR A COMMUNITY CASE CONFERENCE of at least 15 minutes but less than 30 minutes, with a multidisciplinary team of at least three other formal care providers of different disciplines.</p> <p>Fee: \$75.50 Benefit: 75% = \$56.65 85% = \$64.20</p> <p><u>MBS Item 6031</u></p> <p>Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to ORGANISE AND CHAIR A COMMUNITY CASE CONFERENCE of at least 30 minutes but less than 45 minutes, with a multidisciplinary team of at least three other formal care providers of different disciplines</p> <p>Fee: \$113.29 Benefit: 75% = \$84.97 85% = \$96.30</p> <p><u>MBS Item 6032</u></p> <p>Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to ORGANISE AND CHAIR A COMMUNITY CASE CONFERENCE of at least 45 minutes, with a multidisciplinary team of at least three other formal care providers of different disciplines</p> <p>Fee: \$150.90 Benefit: 75% = \$113.20 85% = \$128.30</p>
<p>MULTIDISCIPLINARY CASE CONFERENCE PARTICIPATION - ADDICTION MEDICINE SPECIALIST</p> <p><u>MBS Item 6034</u></p> <p>Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to PARTICIPATE IN A COMMUNITY CASE CONFERENCE (other than to organise and to coordinate the conference) of a least 15 minutes but less than 30 minutes, with a multidisciplinary team of at least two other formal care providers of different disciplines.</p> <p>Fee: \$34.16 Benefit: 75% = \$25.62 85% = \$29.04</p> <p><u>MBS Item 6035</u></p> <p>Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to PARTICIPATE IN A COMMUNITY CASE CONFERENCE (other than to organise and to coordinate the conference) of a least 15 minutes but less than 30 minutes, with a multidisciplinary team of at least two other formal care providers of different disciplines.</p> <p>Fee: \$60.42 Benefit: 75% = \$45.32 85% = \$51.36</p> <p><u>MBS Item 6037</u></p> <p>Attendance by a consultant physician in the practice of his or her specialty, as a member of a case conference team, to PARTICIPATE IN A COMMUNITY CASE CONFERENCE (other than to organise and to coordinate the conference) of at least 30 minutes but less than 45 minutes, with a multidisciplinary team of at least two other formal care providers of different disciplines.</p> <p>Fee: \$90.63 Benefit: 75% = \$67.98 85% = \$77.04</p>

MBS Item 6038

Attendance by a consultant physician in the practice of his or her specialty, as a member of a case conference team, to **PARTICIPATE IN A COMMUNITY CASE CONFERENCE** (other than to organise and to coordinate the conference) of at least 45 minutes, with a multidisciplinary team of at least two other formal care providers of different disciplines.

Fee: \$120.75 Benefit: 75% = \$90.56 85% = \$102.64

Proposed descriptor for group therapy item (which would sit under Option 1 or 2 above)

ADDICTION MEDICINE SPECIALIST – GROUP THERAPY

MBS Item 6042

Group therapy (including any associated consultation with a patient taking place on the same occasion and relating to the condition for which group therapy is conducted) of not less than 1 hours duration given under the continuous direct supervision of an addiction medicine specialist in the practice of his or her specialty of psychiatry where the patients are referred to him or her by a referring practitioner.

- GROUP THERAPY on a group of 2 to 9 unrelated patients OR FAMILY GROUP therapy on a group of more than 2 patients, EACH PATIENT

Fee: \$49.30 Benefit: 75% = \$37.00 85% = \$41.95

Proposed descriptors for short and long telehealth items (which would sit under Option 1 or 2 above)

Option 1: Physician-equivalent items for telehealth consultations

PROFESSIONAL ATTENDANCE –TELEHEALTH (SHORT)

MBS Item 6025

Initial professional attendance of 10 minutes or less in duration on a patient by an addiction medicine specialist practising in his or her specialty if:

- (a) the attendance is by video conference; and
- (b) the patient is not an admitted patient; and
- (c) the patient:
 - (i) is located both:
 - (A) within a telehealth eligible area; and
 - (B) at the time of the attendance-at least 15 kms by road from the addiction medicine specialist; or(ii) is a care recipient in a residential care service; or
 - (iii) is a patient of:
 - (A) an Aboriginal Medical Service; or
 - (B) an Aboriginal Community Controlled Health Service; for which a direction made under subsection 19 (2) of the Act applies; and
- (d) no other initial consultation has taken place for a single course of treatment.

Fee: \$113.20 Benefit: 85% = \$96.25

TELEHEALTH (MORE THAN 10 MINS)

MBS Item 6026

Professional attendance on a patient by an addiction medicine specialist practising in his or her specialty if:

- (a) the attendance is by video conference; and
- (b) the attendance is for a service:
 - (i) provided with item 6018 lasting more than 10 minutes; or
 - (ii) provided with item 6019, 6020 or 6021; and
- (c) the patient is not an admitted patient; and
- (d) the patient:
 - (i) is located both:
 - (A) within a telehealth eligible area; and
 - (B) at the time of the attendance-at least 15 kms by road from the addiction medicine specialist; or
 - (ii) is a care recipient in a residential care service; or
 - (iii) is a patient of:
 - (A) an Aboriginal Medical Service; or
 - (B) an Aboriginal Community Controlled Health Service; for which a direction made under subsection 19 (2) of the Act applies

50% of the fee for the associated item. Benefit: 85% of derived fee

Option 2: Time-tiered item for telehealth consultations

PROFESSIONAL ATTENDANCE - TELEHEALTH

MBS Item 6026

Professional attendance on a patient by an addiction medicine specialist practising in his or her specialty if:

- (a) the attendance is by video conference; and
- (b) the attendance is for a service provided with item 6018, 6019, 6020 or 6021; and
- (c) the patient is not an admitted patient; and
- (d) the patient:
 - (i) is located both:
 - (A) within a telehealth eligible area; and
 - (B) at the time of the attendance-at least 15 kms by road from the addiction medicine specialist; or
 - (ii) is a care recipient in a residential care service; or
 - (iii) is a patient of:
 - (A) an Aboriginal Medical Service; or
 - (B) an Aboriginal Community Controlled Health Service;
for which a direction made under subsection 19 (2) of the Act applies

50% of the fee for the associated item. Benefit: 85% of derived fee

1.18 Applicant's response to the Public Summary Document

Nil

1.19 Context for decision

See MSAC terms of reference.

1.20 Linkages to other documents

Australian Medical Council Report on Recognition of the Specialty of Addiction Medicine.

Australian Government Gazette recognising the specialty of Addiction Medicine.

MSAC's processes are detailed on the MSAC Website at: www.msac.gov.au (home page).

2 Population demand, and supply of clinical services

2.1 The clinical population

Addiction medicine focuses upon the prevention, diagnosis and treatment of addictive disorders. There are many different types of addiction. The most common addictions encountered in the Australian population involve substance use disorders involving (but not necessarily limited to):

- Alcohol (or other ethanol based products);
- Cannabis (marijuana);
- Benzodiazepines (prescribed to relieve anxiety, sleep or chronic muscular tension);
- Opioids (including heroin and other prescription medications provided to control pain);
- Stimulants (such as ecstasy, meth/amphetamines, and cocaine); and
- Hallucinogens (such as LSD and ketamine).

The International Classification of Diseases, 10th edition (ICD-10) and the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (DSM-IV-TR) define substance-use disorders under the diagnostic categories of 'substance abuse' and 'substance dependence'.

Definition of substance abuse

Substance abuse relates to "a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:

1. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g. repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household).
2. Recurrent substance use in situations in which it is physically hazardous (e.g. driving an automobile or operating a machine when impaired by substance use).
3. Recurrent substance-related legal problems (e.g. arrests for substance-related disorderly conduct).
4. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g. arguments with spouse about consequences of intoxication, physical fights)."¹

1. In order for a diagnosis to be made, individuals must not have met the criteria for substance dependence.

Definition of substance dependence

Substance dependence relates to “a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

1. Tolerance, as defined by either of the following:
 - a. A need for markedly increased amounts of the substance to achieve intoxication or desired effect,
 - b. Markedly diminished effect with continued use of the same amount of the substance.
2. Withdrawal, as manifested by either of the following:
 - a. The characteristic withdrawal syndrome for the substance (refer to Criterion A and B of the criteria sets for withdrawal from the specific substances),
 - b. The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms.
3. The substance is often taken in larger amounts or over a longer period than was intended.
4. There is a persistent desire or unsuccessful efforts to cut down or control substance use.
5. A great deal of time is spent in activities necessary to obtain the substance (e.g. visiting multiple doctors or driving long distances), use the substance (e.g. chain- smoking), or recover from its effects.
6. Important social, occupational, or recreational activities are given up or reduced because of substance use.
7. The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g. current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption).”

2.2 Community demand for services

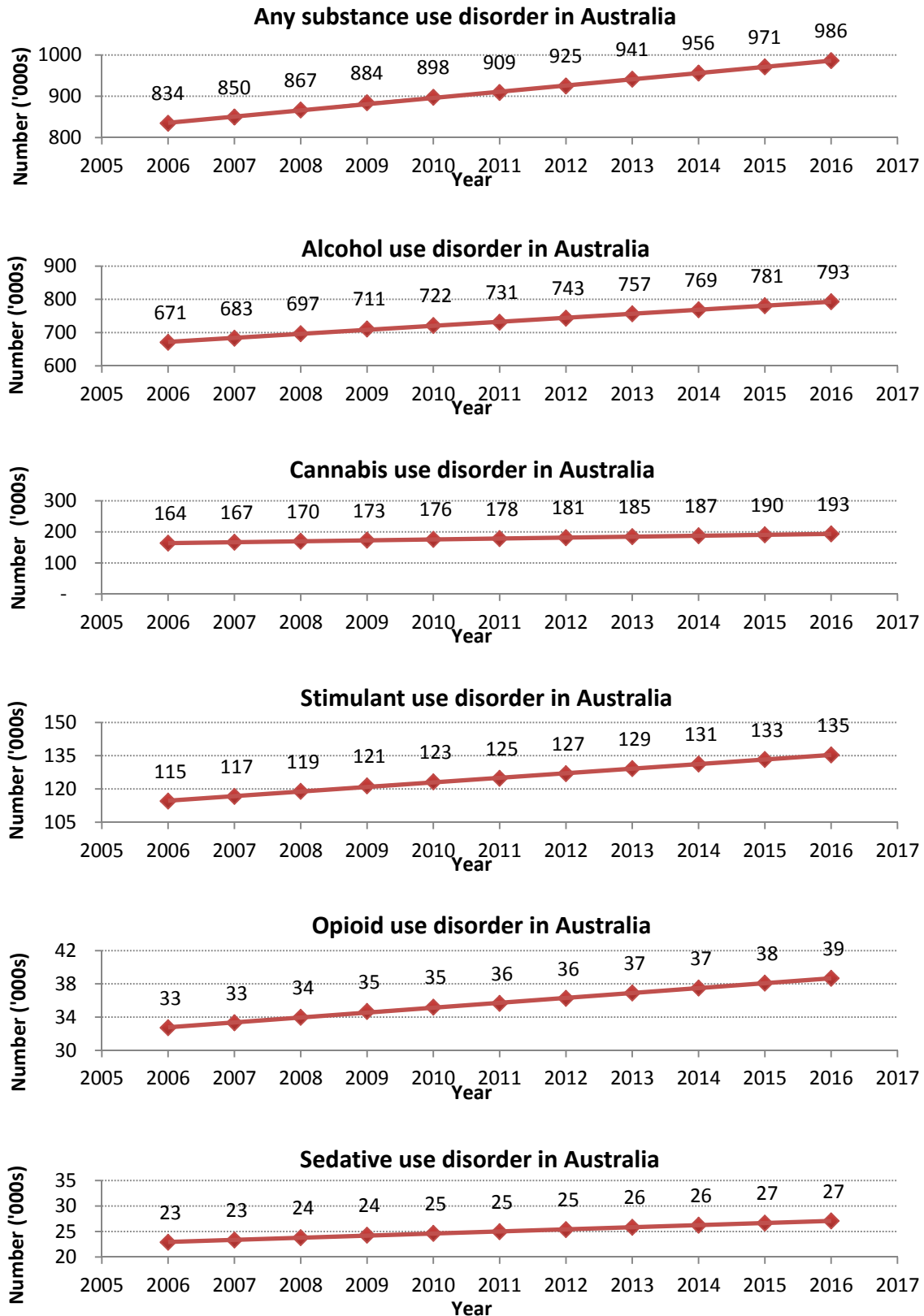
2.2.1 NATIONAL ESTIMATES OF SUBSTANCE USE DISORDER

The proportion of Australians estimated to meet the criteria for substance dependence or substance abuse has been estimated in the 2007 National Survey of Mental Health and Wellbeing (NSMHW)^{2,3}. Applying these rates to national population forecasts (Figure 2-1):

By 2016, it is estimated that around 1 million Australians (Estimate: 986,163; 95%CI: 0.9-1.1) will meet the diagnostic criteria for at least one type of substance use disorder⁴.

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2. Slade, T., Johnston, A., Teesson, M., Whiteford, H., Burgess, P., Pirkis, J., Saw, S. (2009) The Mental Health of Australians 2. Report on the 2007 National Survey of Mental Health and Wellbeing. Department of Health and Ageing, Canberra.
 3. Slade T, Johnston A, Oakley Browne MA, Andrews Gand Whiteford H. (2009). 2007 National Survey of Mental Health and Wellbeing: Methods and Key Findings. Aust N Z J Psychiatry 43: 594
 4. 986,163/19,336,522 (Australian population >= 16 years of age). Binomial confidence intervals have been applied.

Figure 2-1: National estimates of substance use disorders in Australia



The highest level of demand is anticipated for individuals with alcohol-related problems. However, a trend towards increasing demand for services is apparent across all substance use disorders.

2.2.2 INFLUENCES UPON ESTIMATION OF COMMUNITY DEMAND:

Estimates of service demand are likely to be influenced by a number of issues, including:

- Available population data: Whilst the National Survey of Mental Health and Wellbeing is the only source of data estimating the population prevalence of substance use disorder, it is based on self-report information. Population sampling in the NSMHW survey included only those individuals at or above 16 years of age. Substance use and abuse is known to occur in younger Australians (particularly relating to alcohol and cannabis). In addition, independent sources of data for some substance use disorders during the same period (e.g. National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD)) would indicate a far higher prevalence rate (e.g. for opioid dependence) in the Australian population. Accordingly, the current population estimates are likely to be an under-representation of true population prevalence;
- Social awareness and normative behaviour surrounding substance use: Whilst national data might indicate the numbers of individuals achieving (self-reported) criteria for a substance use disorder, this does not easily translate into the number of individuals seeking treatment. Community attitudes to particular substances (e.g. alcohol and cannabis) do not necessarily align with clinical criteria of dependence or abuse; and
- Changes in levels of public awareness: As levels of public awareness increase, it is highly likely that a larger number of individuals may present to general practice for treatment. Accordingly, these figures represent a baseline for estimation in the absence of more accurate data.

2.3 Supply of community services

2.3.1 NATIONAL ESTIMATES OF GENERAL PRACTICE ENCOUNTERS

The majority of patients with substance use and other addiction related disorders would present for treatment to a General Practitioner. Using data from the Bettering Evaluation and Care of Health Study (BEACH) from October 2007 and September 2012 it has been estimated that a total of 929,000 (95%ci: 852,000-1,005,000) General Practice encounters occur each year relating to addiction, representing around 0.80% (95%ci: 0.73-0.86) of all general practice visits⁵. Of these encounters:

- Around 44% (409,000; 95%ci 382,000-437,000) relate to chronic alcohol abuse; and
- Around 43% (402,000; 95%ci 341,000-466,000) relate to some form of drug abuse.

5. Excludes data on problem gambling.

Applying estimates of the average number of general practice visits per patient per annum in Australia⁶ around 182,157 (95%ci: 167,059-197059) patients present for addiction related problems each year. Based upon these figures it is estimated that:

Around 20% (Estimate: 20.49; 95%CI: 20.41-21.58) of the total population meeting diagnostic criteria for any substance use disorder are presenting for treatment to general practice⁷.

2.3.2 NATIONAL ESTIMATES OF PUBLIC SECTOR ENCOUNTERS

Public sector data relating to the number of addiction related occasions of service is available through the National Alcohol and Other Drug Treatment Services (AODTS) Minimum Dataset held by the Australian Institute of Health and Welfare. Additional information was received by one Australian jurisdiction relating to the provision of public sector medical occasions of service for unique patients with addiction related problems⁸.

Over the period of 2007 to 2012, an average of 141,787 public occasions of service was provided each year across all Australian jurisdictions for drug and alcohol related problems. Jurisdictional data⁹ indicated that patients received an average of 3.16 public occasions of service per annum within this period. Extrapolating these figures to the national data, it is estimated that approximately 44,869 patients were seen for addiction related problems in the public sector each year. This implies that:

Around 5% (Estimate: 5.05; 95%CI: 5.3-5.8) of the total population meeting diagnostic criteria for any substance use disorder are presenting for treatment to public sector services¹⁰.

2.3.3 INFLUENCES UPON ESTIMATION OF COMMUNITY SUPPLY

Estimates of service supply are likely to be influenced by a number of issues, including:

- Overlap in the number of patients presenting in the private and public sectors: Data was unavailable to estimate the number of individuals presenting to public health services following general practice referral. Individuals may also present for public treatment services on a 'self-referred' basis, rather than presenting to their general practitioner. Thus, some overlap in the percentage of patients presenting to both public and private sectors is anticipated. Accordingly, any combination of these figures represents an over-estimate of the likely supply of health services for individuals with substance use disorders.

6. "From March 2008 to April 2009, there were about 112 million general practice consultations paid for by Medicare, up from 101 million in 1999–00; an average of 5.1 per person." From: Britt H, Miller GC, Charles J, Henderson J, Bayram C, Valenti L, Pan Y, Harrison C, Fahridin S, O'Halloran J 2009. General practice activity in Australia 1999–00 to 2008–09: 10 year data tables. General practice series no. 26. Cat. no. GEP 26. Canberra: AIHW. (p.viii)

7. 182,157/888,800 (average Australians with any substance use disorder from 2007-2012). Binomial confidence intervals have been applied.

8. Data was requested from five jurisdictions (WA, NT, QLD, NSW, VIC) but was only available for Western Australia.

9. From 2009 to 2012.

10. 44,869/888,800 (average Australians with any substance use disorder from 2007-2012). Binomial confidence intervals have been applied.

2.4 Unmet demand for community services

Given the previous issues associated with estimates of demand and supply, it is acknowledged that current figures are likely to over-represent actual demand for services and under-estimate the likely supply of services in the Australian community. Based upon data provided by one Australian jurisdiction, it would appear that medical practitioners see around 50% of all patients enrolled in community treatment for drug and alcohol problems. Thus:

Based upon available evidence, it is estimated that at up to 37.5% of potential demand for medical services to address addiction related problems (associated with substance use disorders) remains unaddressed across Australia.

2.5 Longitudinal estimates of service demand and supply

Further analysis of estimated trends in overall demand and supply of community services relating to substance use disorder are presented in Appendix 1. Analysis reveals that:

- Demand is anticipated to increase, driven by the rising population. Estimates of the number of potential patients referred for specialist assessment is also anticipated to increase in line with overall population demand; and
- The supply of specialist assessments has exceeded anticipated demand due to the number of general practitioners assessing patients as specialists in addiction medicine. When these practitioners are excluded from analysis, demand has remained higher than supply. The supply of non-general practice specialist assessments is anticipated to decrease.

2.6 Demand for specialist services

2.6.1 NATIONAL ESTIMATES OF GP REFERRAL TO SPECIALISTS

Between October 2007 and September 2012 was approximately 1.86 in every 100 patients (95%ci: 1.40-2.30) with addiction-related problems were referred to medical specialists (BEACH, 2012). Using the annual average estimated number of addiction-related problems presenting to general practice (951,000)¹¹, a total of 17,689 specialist referrals are anticipated each year. The highest percentage of specialist referrals were made to psychiatrists (70.67%), followed by specialty 'clinics' (18.67%).

Assuming that, for the majority of patients, one specialist referral will be made in any given year, it is estimated that:

11. Note that this is higher than the number of encounters, as individuals may present with more than one problem per encounter.

Around 10% (Estimate: 9.7; 95%CI: 9.6-9.8) of all patients presenting to general practice with addiction related problems are referred for independent specialist assessment each year¹².

However, a number of specialists in addiction medicine originally qualified and are currently billing MBS assessment items as general practitioners. In order to ascertain a more accurate level of 'demand' the assessments provided by these individuals must also be taken into account.

Analysis of MBS data from a sample of addiction medicine specialists revealed that an average of around 11% of all occasions of service per annum (between 2010-2012) were claimed as assessments undertaken by general practitioners. Adding these numbers to the annual estimated rate of referrals from general practitioners who are not addiction medicine specialists reveals that there is demand for around 26,469 potential referrals for specialist assessment. Thus:

Around 15% (Estimate: 14.5; 95%CI: 14.4-14.7) of all patients presenting with addiction related problems actually require specialist assessment each year. General practitioners who are specialists in addiction medicine currently see and assess a third of these patients¹³.

2.6.2 NATIONAL ESTIMATES OF PUBLIC SECTOR REFERRAL TO SPECIALISTS

In the public sector, a number of specialist and non-specialist medical practitioners are employed to address the needs of patients with addiction related problems. As such, specific referrals to specialists may or may not occur. Data is therefore unavailable to estimate the number of specific referrals from non-specialist medical practitioners to specialists in the public sector.

2.6.3 INFLUENCES UPON ESTIMATION OF DEMAND FOR SPECIALIST SERVICES

Estimates of demand for specialist services are likely to be influenced by a number of issues, including:

- Constraints upon general practice referral: It is appreciated that the number of referrals from general practitioners for specialist assessment will be heavily influenced by the known availability of specialists and anticipated time to treatment for patients. Thus, current demand may also be constrained by supply. Whilst the majority of referrals are currently made to psychiatrists, around 20% are made to clinics that employ addiction medicine specialists. Referrals to addiction medicine specialists were not included in the BEACH data (as they were not officially recognised until mid-way through the selected data collection period). Accordingly, it is highly likely that an increase in the supply of addiction medicine specialists may also generate demand for services (supply induced demand);

12. 17,689 /182,157. Binomial confidence intervals have been applied.

13. 26,469 /182,157. Binomial confidence intervals have been applied. General practitioner assessments as specialists in Addiction medicine = 8663/26,469 (32.7%).

- Constraints upon public sector referral to specialists: Public sector medical practitioners encounter similar issues to those faced by general practitioners. Specialists working in the public sector base referrals upon the availability and time to assessment for any given patient. Accordingly, if more specialists are unavailable in the public sector, a lower number of referrals may be anticipated (supply constrained demand); and
- Exclusion of demand arising from other sources of referral: As previously identified, individuals may present for public treatment services on a 'self-referred' basis, rather than presenting to their general practitioner. Further, other medical practitioners may also refer for specialist assessment. Data on public sector self-referrals was not available for analysis, and thus additional demand for specialist services is likely.

2.7 Supply of specialist services

Every general practice referral should result in a specialist assessment.

2.7.1 NATIONAL ESTIMATES OF PRIVATE SECTOR SPECIALIST ASSESSMENTS

MBS data indicates that an average of 15,217 specialist assessments is provided per annum in relation to addiction medicine¹⁴. Of these, an average of 57% are provided by specialists billing as general practitioners¹⁵, and 43% are provided by specialists billing as physicians or other medical practitioners¹⁶.

2.7.2 NATIONAL ESTIMATES OF PUBLIC SECTOR MEDICAL ASSESSMENTS

Estimates derived from jurisdictional data and the survey responses of a sample of addiction medicine specialists indicate that an average of 15,062 medical assessments are provided across the public sector for drug and alcohol related problems each year. The proportion of these assessments conducted by addiction medicine specialists remains unknown.

2.7.3 NATIONAL ESTIMATES OF SUPPLY FOR SPECIALIST SERVICES

It is estimated that an average of at least 30,279 assessments are provided across both public and private sector each year for substance related addictions. This estimate is consistent with the number of potential referrals from general practice (26,469), acknowledging that other patients may be self-referred or referred from other medical practitioners for assessment in public sector clinics. Importantly, it is estimated that:

Half of all specialist assessments for substance related addictions (Estimate: 50.26; 95%CI: 49.69-50.82) are undertaken in the private sector.

14. Average over 3 years (2010-2012).

15. N = 8663.

16. N = 6554.

2.8 Unmet demand for specialist services

If it were accepted that (based upon prior assumptions) at least 26,469 patients are referred for specialist assessment and around 30,279 patients are seen for specialist assessment each year - current supply would appear to meet demand.

However, based upon prior assumptions, if it is also accepted that up to 37.5% of the potential demand for services remains unaddressed, then around 5.63% of all Australians are potentially in need of specialist services¹⁷. This equates to an average potential number of 56,906 individuals per annum. Taking the average proportion of assessments delivered in each of these settings:

Potential demand for specialist services may increase by an additional 28,601 MBS-related consultations, and an additional 28,035 occasions of service in the public sector.

2.9 Longitudinal estimates of specialist services

Further analysis of estimated trends in overall demand and supply of specialist services relating to substance use disorder are presented in Appendix 1. Analysis reveals that:

- In the public sector, the number of specialist occasions of service relating to assessment is anticipated to decrease and those relating to the number of treatments are anticipated to increase. This pattern of service delivery is consistent with nurse-liaison and other similar models of care, implemented to triage patients requiring specialist review; and
- In the private sector, the number of specialist assessments is anticipated to increase (marginally), whilst the number of treatment episodes is anticipated to decrease. This pattern of service delivery appears consistent with a 'stepped care' model of service delivery whereby specialists assess and refer patients back to the referring general practitioner for ongoing care.

17. 15 percent of 75 = 11.25.

2.10 The consequences of unmet demand

The consequences of unmet treatment for addiction related problems are significant for the Australian economy. The impact of untreated addiction-related problems have been estimated to cost more than \$3.2 billion per annum for illicit drug use alone¹⁸. Data from previous estimates of the community impact of unmet demand for services are re-presented below.

Table 2-1: Estimated illicit drug expenditure in Australia

PROACTIVE EXPENDITURE		
	Estimated Expenditure in \$Mil. (with Lower and Upper Limits)	Proportion of Total (%)
Prevention School-based education General prevention activities Community development campaigns	304.0 (88.4 - 593.0)	9.5% (2.8% - 16.3%)
Treatment Drug Treatment Service Opioid Substitution Detoxification Prison Pharmacotherapy Programs Inmate Counselling Drug Diversion	229.2 (203.7 - 280.6)	7.1% (6.1% - 8.2%)
Harm Reduction Needles and syringe programs Hepatitis C education and family support	44.8 (44.8 - 70.9)	1.4% (1.4% - 2.1%)
Law Enforcement State and Territory Police Australian Crime Commission Public Prosecutions Legal Aid Prison Community corrections Research Regulation of Crops	558.9 (432.0 - 706.6)	17.4% (13.4% - 20.2%)
Interdiction Australian Federal Police Australian Custom Services	181.5 (149.2 - 351.8)	5.7% (4.7% - 10.4%)
Other Policy Administration Information Services Research Funding	18.4 (11.6 - 32.6)	0.6% (0.4% - 1.0%)
REACTIVE EXPENDITURE		
Health Related Consequences	149.6 (149.6 - 369.6)	4.7% (4.7% - 10.8%)
Crime Related Consequences	1,652.5 (418.6 - 1,674.3)	51.5% (21.3% - 52.0%)
Other Consequences	72.5 (22.2 - 891.7)	2.3% (0.7% - 22.1%)
TOTAL Expenditure	3,211.4 (1520.1 - 4971.1)	100%

18. Moore TJ. (2005). Monograph No. 01: What is Australia's 'drug budget'? The policy mix of illicit drug-related government spending in Australia. DPMP Monograph Series. Fitzroy: Turning Point Alcohol and Drug Centre. Table reproduced in its entirety from the Australian Medical Council (2006) Report of the Recognition of Medical Specialties Advisory Committee for addiction medicine (page 51).

The data indicate that a substantial proportion of expenditure occurs (for illicit drugs only) on law enforcement and crime-related consequences. The health-related consequences of illicit drugs are estimated to cost the Australian economy more than \$150 million dollars each year. Given that alcohol use disorder (rather than illicit drugs) may represent around 80% of all estimated substance use disorder the costs to the Australian economy would appear to be much higher than these estimates suggest.

As Alcohol Use Disorder represents such a significant proportion of substance use disorders in Australia, a discussion of its impact on health and society will now follow, as an exemplar of substance use disorders in general.

2.10.1 THE CONSEQUENCES OF ALCOHOL USE DISORDER

Health, Disease and Mortality

Approximately 4.5% of the global burden of disease and injury is attributable to alcohol and it is the third leading global risk factor for disease and disability. Alcohol consumption is estimated to cause from 20% to 50% of cirrhosis of the liver, epilepsy, poisonings, road traffic accidents, violence and several types of cancer (WHO 2011). Indeed, alcohol has been identified as a component cause¹⁹ for over 200 ICD-10 disease codes. The major disease categories are presented in Table 2-2. The impact of alcohol consumption on disease and injury is associated with two separate but related dimensions of drinking by individuals: the volume of alcohol consumed and the pattern of drinking (WHO 2011).

Alcohol results in approximately 2.5 million deaths worldwide (i.e. 4% of all deaths) each year (WHO, 2009a). In Australia, 2.0 to 4.9% of deaths are attributable to alcohol (WHO 2004). The harmful use of alcohol is especially fatal for younger age groups and alcohol is the world's leading risk factor for death among males aged 15–59 (WHO 2011). Most of the deaths caused by alcohol are in the categories of injury, cancer, cardiovascular disease and liver cirrhosis. Intentional and unintentional injuries account for 42% of all alcohol-attributable deaths, which underlines the importance of addressing the intoxication propensities of alcohol (WHO 2011).

¹⁹ A component cause may be one among a number of components, none of which alone is sufficient to cause the disease. When a number of the components are present, the sufficient cause is formed (WHO 2011).

Table 2-2: Major disease and injury categories causally linked to alcohol

MAJOR DISEASE OR INJURY CATEGORIES	EXAMPLES
Neuropsychiatric Disorders	<ul style="list-style-type: none"> ▪ Epilepsy ▪ Withdrawal-induced seizures ▪ Alcoholic Psychoses ▪ Cerebellar disease ▪ Alcohol dependence
Gastrointestinal Diseases	<ul style="list-style-type: none"> ▪ Liver cirrhosis ▪ Pancreatitis ▪ Oesophageal varices ▪ Gastro-oesophageal haemorrhage ▪ Alcoholic gastritis ▪ Cholelithiasis
Cancer	<ul style="list-style-type: none"> ▪ Colorectum ▪ Female breast ▪ Larynx / pharynx / oral cavity ▪ Liver ▪ Oesophagus
Intentional Injuries	<ul style="list-style-type: none"> ▪ Suicide ▪ Self-inflicted Injuries ▪ Violence against others (e.g. assault)
Unintentional Injuries	<ul style="list-style-type: none"> ▪ Road traffic accidents ▪ Falls ▪ Drowning ▪ Poisoning ▪ Aspiration ▪ Occupational and machine injuries
Cardiovascular Diseases	<ul style="list-style-type: none"> ▪ Ischaemic heart disease ▪ Ischaemic stroke ▪ Hypertension ▪ Cardiac dysrhythmias ▪ Haemorrhagic stroke ▪ Alcoholic Cardiomyopathy
Prenatal Diseases	<ul style="list-style-type: none"> ▪ Foetal Alcohol Syndrome
Other	<ul style="list-style-type: none"> ▪ Diabetes mellitus ▪ Impairment of immune system ▪ Risky sexual behaviour leading to sexually transmitted disease ▪ Reduced adherence to medical treatment ▪ Alcoholic Polyneuropathy

Adapted from WHO 2011; Collins & Lapsley 2008.

In Australia, the most significant *potentially* alcohol-related²⁰ mortality rates are for intentional injury and ischaemic heart disease (WHO 2004a). These data are presented in Table 2-3.

Overall disease burden can be expressed as Disability-adjusted life years (DALYs).²¹ In 2004, 4.5% of the global burden of disease and injury was attributable to alcohol (WHO 2004). Approximately 40% of alcohol-attributable DALYs are for neuropsychiatric disorders.

Table 2-3: Standardised mortality rates (per 100 000) for *potentially* alcohol-related disease and injury in Australia (WHO 2004a)

DISEASE OR INJURY	MORTALITY RATE PER 100,000
Ischaemic Heart Disease	85.46
Intentional Injury	13.63
Traffic Casualties	8.91
Liver Cirrhosis	3.77
Accidental Poisoning	3.05
Mouth an oropharynx cancer	2.69
Falls	2.27
Alcohol Use Disorders	0.99

Harm to Society: Harm to Other People

Besides the numerous chronic and acute health effects, alcohol consumption is also associated with widespread psychosocial consequences, including violence, child neglect and abuse, and absenteeism in the workplace. In addition, diseases and injuries arising from alcohol have social implications, including medical costs, which are borne by governments, negative effects on productivity, and financial and psychological burdens on families (WHO 2011).

Social harm from drinking can be classified in terms of how it affects important roles and responsibilities of everyday life. As a result, a broad range of people can be affected by another person's drinking. It should be noted that:

²⁰ It should be noted that these are not *purely* alcohol-related deaths. Traffic injuries, for example, also depend on the traffic or car densities, or road safety issues.

²¹ DALYs are years of life lost due to **premature mortality** combined with years of life lost due to time lived in **less than full health** to create a single indicator that assesses the overall burden of disease for a given population (WHO 2004).

- Almost three-quarters of the adult Australian population report having been affected in the last year as the result of someone else's drinking;
- A total of 16% of Australians have been affected by the drinking of someone they live with or are intimate with – a family member or romantic partner;
- Over one in ten Australians has been affected by a friend's drinking in the past year; and
- 5% have been affected by a co-worker's drinking (Laslett 2010).

Specific examples include (WHO 2011):

- Reduction in the drinker's own productivity, including loss of job which may affect financial circumstances of the drinker's family;
- Reduction in the productivity of others if they have to take time out of their work to cover for the drinker's mistakes, absences or lateness;
- Impaired ability of a parent or guardian to care for children because of intoxication (including neglect or abuse of children);
- Drinking and intoxication adversely affecting intimate and family relations and friendships; and
- Impact on strangers e.g. victims of road traffic accidents caused by a drunk driver or victims of assault, sexual assault, homicide, robbery or property crimes by an intoxicated person. In Australia, a country of 21 million, more than 10 million people have been negatively impacted in some way by a stranger's drinking (Laslett et al., 2010).

The range and magnitude of alcohol's harm to others in Australia is presented in Table 2-4.

Table 2-4: Range and magnitude of alcohol’s harm to others in Australia in 2008

TYPE OF HARM	NUMBER	
Social Agency Records-Based		
Deaths due to another’s drinking	367	
Hospitalizations due to another’s drinking	13,699	
Substantiated child protection cases involving a caregiver’s drinking	19,443	
Alcohol-related domestic assault in police records	24,581	
Alcohol-attributable assaults in police records	69,433	
Population Survey-Based		
	Affected a Little	Affected a Lot
Negatively affected by a co-worker’s drinking	496,700	120,400
Had one or more children negatively affected by the drinking of a caregiver	888,100	210,700
Negatively affected by the drinking of a household member, relative or friend	2,905,000	1,294,500
Negatively affected by drinking of a stranger or someone not well-known	5,463,900	617,100
Any negative effect of a stranger’s drinking	10,536,400	-

Adapted from Laslett et al 2010.

Harm to Society: Harm to Society at Large

A substantial body of research has examined the economic costs of alcohol consumption for society as a whole, including the costs to governments and citizens. If costs to specific others are included, in terms of out-of-pocket expenses and time lost because of others’ drinking, the costs double (WHO 2011).

Costs that are conventionally measured in national accounts data (e.g. healthcare) are frequently used to estimate the costs associated with alcohol misuse as a percentage of Gross Domestic Product. These costs in Australia are presented in Table 2-5, and account for 1.4% of the Australian GDP. This is comparable with other high-income countries, where the total costs attributable to alcohol range from 1.4% (Canada and Scotland) to 2.7% (USA) of GDP (Rehm et al., 2009). The largest such cost is that involved in the Australian workforce (e.g. lost productivity).

Table 2-5 : Comparison of some tangible cost categories with gross domestic product in Australia, 2004/05

COST CATEGORY	\$MILLION	% OF GDP
Labour in the Workforce	3,578.6	0.45
Net Healthcare	1,976.7	0.25
Road Accidents	2,157.0	0.27
Crime	1,611.5	0.20
Resources used in abusive consumption	1,688.8	0.21
TOTAL	11,012.6	1.39

Adapted from Collins and Lapsley 2008

3 The clinical safety and effectiveness of interventions

3.1 Types of intervention provided for substance use disorder

Medical practitioners in Australia provide a number of different clinical interventions to patients with substance use disorder. Treatment typically involves a combination of pharmacotherapy and/or psychosocial interventions.

A range of pharmacotherapies are listed on the PBS to address specific substance use disorders, such as:

- ▶ Acamprostate Calcium for patients with alcohol dependence;
- ▶ Naltrexone Hydrochloride for patients with alcohol and/or opioid dependence;
- ▶ Methadone Hydrochloride for patients with opioid dependence;
- ▶ Buprenorphine for patients with opioid dependence;
- ▶ Buprenorphine With Naloxone for patients with opioid dependence; and
- ▶ A range of benzodiazapines used to manage substance withdrawal.

A wider range of other pharmacotherapies is prescribed to treat comorbidities and complications associated with substance abuse.

Psychosocial interventions include (but not limited to) psychotherapeutic counselling, motivational counselling, brief interventions, cognitive behavioural therapy, family therapy, relaxation therapy, and group therapy.

3.2 Clinical safety of interventions

The Therapeutic Goods Administration (TGA) is responsible for regulating therapeutic goods including medicines, medical devices, blood and blood products. The TGA administers the *Therapeutic Goods Act 1989*, which provides the legislative framework for a risk management approach that ensures that the Australian community has timely access to therapeutic goods, which are **consistently safe, effective and of high quality**. In effect, no therapeutic product can be supplied in Australia unless it has been assessed and approved for registration by the TGA. The TGA is also responsible for ongoing monitoring of products once they are available on the Australian market.

Analysis of available evidence from the BEACH (2012) data suggests that the 10 most common medications prescribed by general practitioners for the treatment of addiction related problems include (in descending order):

- | | |
|----------------------------------------|--------------------------|
| ▪ Diazepam (27.35%); | ▪ Vitamin B1 (3.96%); |
| ▪ Methadone (21.08%); | ▪ Oxycodone (2.66%); |
| ▪ Buprenorphine with Naloxone (7.58%); | ▪ Buprenorphine (2.57%); |
| ▪ Oxazepam (4.44%); | ▪ Tamezepam (2.44%); and |
| ▪ Acamprostate calcium (4.14%) | ▪ Naltrexone (2.44%). |

These medications have been approved for listing on the PBS (Table 3-1)²² and account for 79% of all medications prescribed to patients presenting to general practice with addiction related problems.

Table 3-1: TGA approved and PBS listed medications for addictive disorders

MEDICATION NAME	PBS INDICATION	CLASS	SCHEDULE	TGA PRODUCT INFORMATION	DATE OF TGA REGISTRATION
Acamprosate Calcium	For use within a comprehensive treatment program for alcohol dependence with the goal of maintaining abstinence	Authority Drug	S4	Campral is indicated as therapy to maintain abstinence in alcohol dependent patients. It should be combined with counselling.	Aug-99
Naltrexone Hydrochloride	For use within a comprehensive treatment program for alcohol dependence with the goal of maintaining abstinence	Authority Drug	S4	Naltrexone GH is indicated for use within a comprehensive treatment programme for alcohol dependence. Naltrexone GH is also indicated as adjunctive therapy in the maintenance of formerly opioid-dependent patients who have ceased the use of opioids such as diamorphine (heroin) and morphine.	Jul-09
Methadone Hydrochloride	Severe disabling pain not responding to non-narcotic analgesics	Restricted Benefit	S8	Biodone Forte is indicated for the detoxification and maintenance treatment of dependence on opioid drugs.	Mar-00
Buprenorphine	Treatment of opiate dependence, including maintenance and detoxification (withdrawal), within a framework of medical, social and psychological treatment	S100	S8	Management of moderate to severe pain.	May-05
Buprenorphine With Naloxone	Treatment of opiate dependence within a framework of medical, social and psychological treatment	S100	S8	Treatment of opiate dependence within a framework of medical, social and psychological treatment	Jul-05
Oxycodone	Severe disabling pain not responding to non-narcotic analgesics	Restricted Benefit	S8	Relief of moderate to severe pain	Jul-09

The specific safety of psychotherapeutic interventions is less well documented in systematic reviews. Notwithstanding, it is recognised that the safety of any psychosocial intervention is dependent upon the training and competencies of individual medical practitioners. Individual Colleges regulate these standards through fellowship training and ongoing professional education.

22. Excludes the range of potential benzodiazapines that have also been approved for listing.

Having reviewed the range of interventions provided by addiction medicine specialists, the Australian Medical Council (2006) has concluded that:

“... Addiction Medicine as a specialty will probably lead to improved patient outcomes and safety by the broad promulgation of evidence-based approaches to diagnosing, treatment and managing substance-related disorders, and the subsequent marginalisation of a number of existing clinical and other interventions that have been shown to be variously expensive, ineffectual and unsafe.” (p.36)

3.3 Clinical effectiveness of interventions

A total of 89 studies of the highest levels of evidence were reviewed to evaluate the clinical effectiveness of interventions provided for substance abuse (and selected other addiction related) disorders. A detailed list of these references is presented in Appendix 3.

3.3.1 COMPARISON OF DIFFERENT THERAPIES

The literature demonstrates clear evidence for the effectiveness of a range of pharmacological and psychosocial interventions for addiction related conditions.

Findings from the published literature are summarised in Table 3-2.

Table 3-2: Addiction medicine interventions proved to be beneficial/effective or likely to be beneficial/effective

CONDITION	TREATMENT OR INTERVENTION	OUTCOME	LEVEL OF EVIDENCE
ALCOHOL	Naltrexone (vs placebo)	Preventing return to heavy drinking	Level I
	Benzodiazepines (vs placebo)	Preventing alcohol withdrawal seizures	Level I
	Anti-convulsants (vs other)	Preventing alcohol withdrawal seizures	Level I
	Gamma-hydroxybutyrate (GHB) (vs diazepam)	Reduced tremor/agitation Abstinence	Level I
	Psychosocial therapies such as Brief Interventions, Community Reinforcement Approach or Cognitive Behavioural Therapy (vs controls)	Reduced alcohol consumption	Level I

CONDITION	TREATMENT OR INTERVENTION	OUTCOME	LEVEL OF EVIDENCE
OPIOIDS	Methadone Maintenance Treatment (MMT) (vs controls)	Increased retention in treatment Abstinence	Level I
	Methadone for detoxification (vs placebo)	Completion of treatment	Level I
	Naltrexone (vs placebo)	Reduced use of heroin	Level I
	Buprenorphine (vs placebo or clonidine)	Completion of treatment	Level I
	Behavioural plus pharmacological management (vs pharmacological alone)	Ongoing abstinence	Level I
	Psychosocial therapy (e.g. Contingency Management, Psychotherapeutic Counselling, Counselling and education on high risk behaviour, Family Therapy) plus pharmacological or methadone management (vs pharmacological or methadone alone)	Ongoing abstinence Improved compliance	Level I
	Contingency management (a type of operant conditioning e.g. voucher-based reinforcement therapy (VBRT) or related monetary-based incentives) plus buprenorphine or methadone management (vs buprenorphine or methadone alone)	Reduced use of opiates	Level I
CANNABIS	Combination psychological therapies (e.g. motivational intervention plus education in behavioural and cognitive coping skills to prevent relapse)	Reduced use of cannabis	Level I
STIMULANTS	Risperidone (vs placebo)	Reduced treatment dropout	Level I
	Disulfiram (vs no treatment)	Improved abstinence from cocaine	Level I
	CBT plus Contingency management (vs CBT plus other)	Improved abstinence from cocaine	Level I
	Pharmacological treatment (vs placebo) for amphetamine withdrawal	Reduced rate of treatment discontinuation	Level I
	Amineptine treatment (vs placebo) for amphetamine withdrawal	Reduced rate of treatment discontinuation	Level I
OTHER	Motivational Interviewing for substance abuse (vs no treatment)	Reduced extent of substance abuse	Level I
	Behavioural support (including brief advice, group therapy and counselling) and pharmacotherapies (including nicotine replacement therapy (NRT), varenicline and bupropion) for tobacco addiction vs usual care	Improved smoking cessation	Level I
	Psychological treatments (e.g. Cognitive Behavioural Therapy CBT) and pharmacological interventions for Internet Addiction	Reduced symptoms of Internet addiction Reduced time spent online Reduced depression Reduced anxiety	Level I
	Pharmacological treatments (antidepressants, opiate antagonists, mood stabilizers) for pathological gambling	Reduced money lost Reduced days gambled Improved scores on gambling scales	Level I
	Psychological treatments (e.g. CBT; aversive therapy, eclectic therapy, relaxation therapy, group therapy, multimodal therapy) for pathological gambling	Reduced money lost Reduced days or hours gambled Reduced desire to gamble Improved scores on gambling scales	Level I

Adapted from: Amato L, Davoli M, Vecchi S, Ali R, Farrell M, Faggiano F, Foxcroft D, Ling W, Minozzi S, Chengzheng Z. Cochrane systematic reviews in the field of addiction: what's there and what should be. Drug Alcohol Depend. 2011 Jan 15;113(2-3):96-103.

3.3.2 INVESTIGATION OF COMBINATION THERAPIES

Evidence also indicates that an appropriate mix of interventions is required in order to maximise the likelihood of success for patients with addiction related conditions.

In particular, the following therapeutic combinations have been demonstrated to result in more successful treatment outcomes:

- Methadone maintenance treatment for opioid addiction is more effective when it includes individual and/or group counselling, with even better outcomes when patients are provided with, or referred to, other needed medical/psychiatric, psychological, and social services (e.g., employment or family services). (Level I evidence; Amato et al 2008; NIDA 2012);
- Pharmacotherapies for smoking cessation (e.g. Nicotine replacement therapy) are recommended for use in combination with behavioural interventions, including group and individual therapies. Behavioural approaches can amplify the effects of medications by teaching people how to manage stress, recognize and avoid high-risk situations for smoking relapse, and develop alternative coping strategies (e.g., cigarette refusal skills, assertiveness, and time management skills). Combined treatment is urged because behavioural and pharmacological treatments are thought to operate by different yet complementary mechanisms that can have additive effects (Level I evidence; Shah et al 2008; Hall et al 2011; Stead & Lancaster 2012; NIDA 2012);
- Combination psychological therapies for cannabis dependence result in reduced cannabis use (e.g. motivational intervention plus education in behavioural and cognitive coping skills to prevent relapse) (Level II evidence; Danovitch & Gorelick 2012); and
- Counselling improves the cost-effectiveness of modafinil (relative to placebo) in the treatment of psycho-stimulant dependence. Researchers recommend development of strategies to improve the uptake of counselling to be used in conjunction with modafinil (Level II evidence; Shearer et al 2010).

In addition, there is evidence in peer-reviewed literature that a range of specialised psychosocial and medical therapies can be effective in treating addictions to alcohol, opioids, cocaine, amphetamines, and nicotine. These would typically be delivered in more specialised settings (Dedicated drug and alcohol services, multidisciplinary teams, and/or under the supervision of a medical practitioner familiar with drug and alcohol issues e.g. an addiction medicine specialist) rather than in General Practice settings. Some examples include:

- *Cognitive-Behavioural Therapy (CBT)*, which may include exploring the positive and negative consequences of continued drug use, self-monitoring to recognize cravings early and identify situations that might put one at risk for use, and developing strategies for coping with cravings and avoiding those high-risk situations (Level II evidence; Carroll & Onken 2005; Carroll et al 2004);
- *Contingency Management Interventions*, which involve giving patients tangible rewards to reinforce positive behaviours such as abstinence. Studies conducted in both methadone programs and psychosocial counselling treatment programs demonstrate that incentive-based interventions are highly effective in increasing treatment retention and promoting

abstinence from drugs (Level I/II evidence; Budney et al 2006; Prendergast et al 2006; Roll et al 2006; NIDA 2012);

- *Community Reinforcement Approach (CRA)*, which is a bio-psychosocial multifaceted approach to change a lifestyle of substance abuse that focuses on alternative positive resources in the social environment CRA promotes a lifestyle that is more rewarding than substance abuse, with the development of alternative rewarding social activities that are incompatible with substance use. It may also involve voucher-based incentive programs to promote abstinence. Researchers report that, compared with no intervention, CRA is effective at reducing the number of drinking days and reducing cocaine use (Level I evidence; Roozen et al 2004; NIDA 2012);
- *Motivational Enhancement Therapy*, which is a brief intervention (involving motivational interviewing) that helps individuals resolve their ambivalence about engaging in treatment and stopping their drug use. This approach aims to evoke rapid and internally motivated change, rather than guide the patient stepwise through the recovery process. This approach has been used successfully in randomised controlled trials of alcohol addiction and of adolescents with substance use disorders, and combined with cognitive-behavioural therapy for cannabis dependence for a more comprehensive treatment approach (Level II evidence; Miller et al 2003; Marijuana Treatment Project Research Group 2004; Olmstead et al 2007; Godley et al 2010; MNIDA 2012); and
- *Detoxification*, used for alcohol, for example. Detoxification is usually part of specialized or formal treatment programs that also include out-patient counselling and residential care. Detoxification services are directed mainly at patients with a history of chronic drinking (especially those with poor nutrition) who are at risk of experiencing withdrawal symptoms. Treatment that obviates development of the most severe withdrawal symptoms can be life-saving. Following detoxification, a variety of therapeutic modalities (e.g. behaviour therapy, group therapy, family treatment and motivational enhancement) have been incorporated into service settings to treat the patient's substance use problems, promote abstinence and prevent relapse (Level II evidence equivalent; Alcohol and Public Policy Group 2010).

3.3.3 EFFECTIVENESS OF DIFFERENT MEDICAL PRACTITIONERS

The Australian Medical Council has identified a need for specialists in addiction medicine, citing that:

“...the discipline of addiction medicine is both sufficiently complex and extensive to require a comprehensive and complete training program to practice at a level expected of the specialist practitioner.” (p.48)

Accordingly, the literature was examined to identify any studies comparing the outcomes achieved by addiction medicine specialists and other types of medical practitioner.

A search of the medical literature identifies very few studies of drug or alcohol dependence/addiction that compare outcomes achieved by addiction medicine specialists versus those achieved by general practitioners (GPs). For example, in a study comparing a specialist outpatient drug treatment centre and six office-based general practices in the

treatment of heroin dependence (Gibson et al 2003), half of the GPs were either Foundation Fellows of the AChAM or worked with addiction medicine specialist back-up.

However, there is evidence that many GPs may experience difficulties in treating substance use disorders. Reviews of existing studies (Level I evidence; Kaner et al 2009; No NHMRC Level of Evidence, Roche et al 2002; Level I evidence equivalent²³; Anderson 2009), have identified a number of reasons for lack of GP involvement in managing these patients including:

- Lack of time, even for provision of “brief” interventions;
- Inadequate knowledge and training;
- Fear of antagonising patients;
- Negative health sequelae associated with drug use presenting as acute conditions;
- High prevalence of co-occurring mental health disorders with harmful substance use;
- Frustration with low success rates;
- Low patient motivation;
- Costs of treatment; and
- Professional isolation and lack of specialist support.

Professional bodies such as the Royal Australasian College of Physicians (RACP) have developed policies outlining the role of addiction medicine specialists in supporting GPs in the treatment of patients using drugs such as prescription opioids. Such policies point to the importance of multidisciplinary models of care, to optimise pharmacological and non-pharmacological management of chronic non-malignant pain (RACP 2009), with GPs often feeling they lack knowledge or feeling uncomfortable prescribing medications for such patients (Survey of GPs – No NHMRC Level of Evidence; Bendtsen et al 1999). Specifically, addiction medicine specialists can assist in risk stratification, relieve pressure on GPs by providing access to expert opinion, and provide patient care in a multi-disciplinary setting.

Stepped care for substance abuse, based on chronic disease models (Katon 2001), has been proposed as a model of care that provides increased support to GPs by addiction medicine specialists and services. Such a program, which involves successive steps of care starting in the GP rooms and moving eventually to drug and alcohol treatment agency, has been found to result in reduced alcohol use, greater motivation to change and greater cost-savings (Level II evidence; Drummond et al 2009), and improved outcomes in opioid users including increased counselling attendance and reduce drug use (Level II evidence equivalent; King & Brooner 2008).

Further, patients with substance-use disorders may also suffer from complex medical co-morbidities. For example, patients suffering alcohol addiction are at risk of complications including direct harm from alcohol such as organ damage, mental health disorders and a range of social and legal problems associated with behaviours due to alcohol's effects (Review - No NHMRC Level of Evidence; Chase et al 2005). Those using illicit injected opioids may also contract Hepatitis C or HIV (Review - No NHMRC Level of Evidence; Wang

²³ Paper is an overview of evidence derived from Cochrane reviews.

et al 2011). Accordingly, such complicated patients may require both treatment of their addiction and medical treatment of co-morbidities (Review - No NHMRC Level of Evidence; Altice et al 2010), and the AChAM would argue that they are best placed to provide treatment in a multi-disciplinary, integrated program, which in turn is the most cost-effective setting (AChAM 2010).

3.3.4 PERCEPTIONS OF ADDICTION MEDICINE SPECIALISTS

Chapter fellows were surveyed to identify perceived differences in patient management compared with general practitioners²⁴. Results of the survey responses were consistent with the published literature are depicted graphically in Appendix 3. Specialist intervention was perceived to result in:

- More time spent with patients per patient visit;
- More appropriate medication prescriptions;
- Better patient compliance with medication regimes;
- A greater degree of multi-disciplinary patient management;
- A lower number of patient visits for treatment per annum; and
- A lower number of avoidable admissions of patients to hospital.

24. Ideally, a comparison sample of general practitioner perceptions would be sought. However, this was beyond the time available to conduct the current project.

4 Addiction Medicine scope of practice and workforce

4.1 Comparator specialty groups

As previously described, a range of safe and effective interventions for addiction-related problems could be provided by a number of different medical specialties.

General practitioners provide the majority of services. A small group of general practitioners are qualified to prescribe S100 medications for patients with substance use disorders²⁵. Psychiatrists also see a large number of patients with addictive disorders. Accordingly, it is useful to identify and compare the training competencies of these medical specialties with the more recent specialty of addiction medicine. Results of this analysis are presented in Appendix 4.

4.1.1 ADDICTION MEDICINE AND GENERAL PRACTITIONERS

Analysis of training competencies indicates that both addiction medicine specialists and psychiatrists are trained to perform a wider role than general practitioners in:

- Consultation-liaison;
- Medico-legal activities;
- Public health activities; and
- Research into addiction disorders.

Nevertheless, the majority of services provided to patients with addiction problems are provided by general practitioners. The AMC carefully considered the impact of introducing addiction medicine specialists upon the existing roles and responsibilities of general practitioners. The Royal Australasian College of General Practice was initially concerned that specialists might wish to practice in a primary care setting, and thus fragment services delivered in general practice. The AMC was satisfied that when working outside of the hospital system, addiction medicine was a 'referral-based' practice that encouraged a 'stepped care' model of patient management, wherein:

“Specialists provide consultation services to primary care physicians in management of more complex cases, supervision of nurses or case managers, ‘collaborative care’ for patients in primary care clinics not responding to initial primary care based treatment and ongoing specialty care for the most severe or complicated cases” (p.33).

25. Attempts were made to identify the number of GPs registered to prescribe S100 medications, however, data is held by individual jurisdictions across Australia and data were not able to be identified within the project timelines.

4.1.2 ADDICTION MEDICINE AND PSYCHIATRY

Examination of the training competencies between addiction medicine specialists and psychiatrists who specialise in Addiction Psychiatry appear to be the same. This is not surprising. In Australia and a number of overseas jurisdictions, addiction medicine has evolved from a specialist branch of psychiatry.

The AMC undertook extensive consultation with the Royal Australian and New Zealand College of Psychiatrists during the process of determining whether there was sufficient evidence to support addiction medicine as an independent specialty and several key issues were identified:

- The College of Psychiatry has had significant input in the addiction medicine training program;
- The College's emphasis upon Addiction Psychiatry has subsequently decreased over the past 10 years;
- Training solely within a psychiatric framework was considered to be insufficient to deal with the full range of medical co-morbidities (e.g. HIV, Hepatitis, chronic liver disease, coronary heart disease) faced by patients with addiction-related problems; and
- The College was highly supportive of the position of addiction medicine as a new medical specialty area.

The Council subsequently concluded that:

“Although historically a sub-specialty of psychiatry, the field of addiction medicine has developed to the extent that an effective specialist-level practitioner cannot be trained within a psychiatric framework alone, a position that is supported by the Royal Australian and New Zealand College of Psychiatry” (p. 35).

4.2 Addiction medicine training

Recognised specialists in addiction medicine are Fellows of the Australasian Chapter of Addiction Medicine (FACHAM) affiliated with the Royal Australasian College of Physicians (RACP). Fellowship is awarded to trainees who have completed three years of advanced training in addiction medicine, including 18 months in accredited drug and alcohol positions and a further 18 months in an approved public health, medical, psychiatric or research position.

To be eligible for training, an applicant must be registered as a Medical Practitioner (in Australia or New Zealand), and

- Have completed the part one examinations for the RACP fellowship program, or
- Have fellowship of the Australasian Colleges of Anaesthetics (FANZCA), Emergency Medicine (FACEM), General Practice (FRACGP, FRNZCGP), Psychiatry (FRANZCP) or Rural and Remote Medicine (FACRRM), or

- Have fellowship of Faculties or Divisions affiliated with:
 - ▶ The RACP including Internal Medicine (FRACP), Paediatrics and Child Health (FRACP), Public Health Medicine (FAFPHM), or Rehabilitation Medicine (FAFRM); or
 - ▶ The Australian and New Zealand College of Anaesthetists relating to Pain Medicine (FFPMANZCA).

Applicants are selected according to their background and prior experience. Training exemptions may be granted to medical practitioners who have completed prior training in Addiction Psychiatry through the FRANZCP. Thus:

Addiction medicine specialists undertake approximately 6 years of training. Basic training is undertaken in a number of different specialty areas, advanced training is tailored to individual applicants, completed according to the specified curriculum and subsequently approved by the Australasian Chapter of Addiction Medicine (under the auspice of the Royal Australasian College of Physicians).

4.3 Addiction medicine scope of practice

According to the training requirements of the Chapter, addiction medicine specialists must achieve competencies across a variety of skills in order to address the needs of individuals who experience substance-use disorders including (but not necessarily limited to) a demonstrated capacity to (AMC, 2006):

- “Assess and diagnose substance-related disorders;
- Develop and manage an evidence-based treatment plan for substance dependence that incorporates:
 - ▶ The management of withdrawal states (with or without pharmacotherapy);
 - ▶ The management of delirium and intoxication, including overdose;
 - ▶ The use of maintenance pharmacotherapies (e.g. Naltrexone, Acamprosate and Disulfiram for alcohol dependence; Methadone, Buprenorphine and Naltrexone for opioid dependence: ‘all of which involve assessment, an induction phase, a stabilisation phase and maintenance phase, and sometimes withdrawal and aftercare’);
 - ▶ Relapse prevention and on-going monitoring;
- Assess and diagnose medical (e.g. HIV/AIDS, Hepatitis C) and psychiatric (e.g. DSM IV Axis I and II disorders) comorbidities, with provision of specialist referral where required;
- Assess psychosocial and welfare needs, with provision of referral to appropriate services where required;
- Provide consultation-liaison support to GPs who provide on-going maintenance treatment and primary health care to patients;
- Provide effective leadership to multidisciplinary teams within specialist unit settings (e.g. inpatient detoxification centres);

- Provide educational and training support to other medical and health professionals;
- Contribute to the development and dissemination of a comprehensive evidence-base to guide and inform clinical practice;
- Contribute to addiction medicine research;
- Contribute to health promotion and public health policy development;
- Contribute to academic teaching and professional training; and
- Provide expert legal opinion and other forensic advice where required.”

4.4 Addiction medicine interventions

In order to address complexity and chronicity of people experiencing (or at risk of experiencing) substance-use disorders, specialists in addiction medicine provide a variety of clinical interventions including:

- Emergency/acute withdrawal management;
- Intake processing/and assessment;
- Treatment planning;
- Multi-disciplinary care co-ordination;
- Pharmacotherapy;
- Behavioural therapy and counselling;
- Substance-use monitoring;
- Self-help and peer support groups;
- Clinical and case management; and
- Continuing care.

These interventions may be provided directly by specialists or via consultation with other specialists, general practitioners or and other health providers. Unlike many other physicians, the type of intervention is dependent upon the timing and nature of client presentation. Accordingly, comprehensive assessment may not be possible until acute withdrawal management has been implemented. Similarly, treatment of relapse may be required prior to re-assessment and revised treatment planning.

4.5 Addiction medicine workforce

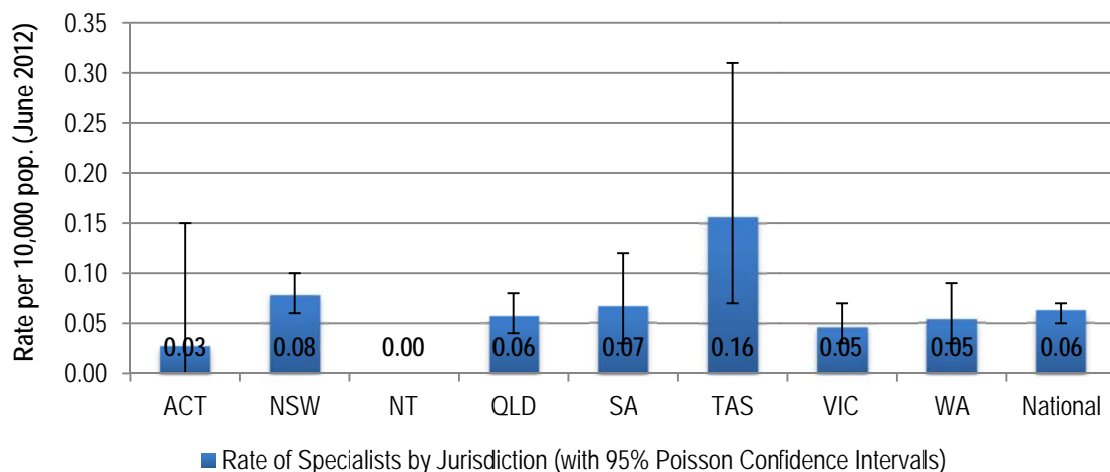
Registration data from the Chapter of addiction medicine reveal a total of 174 addiction medicine specialists in Australia, 142 of who are below the current age of retirement (Table 4-1).

Table 4-1: Addiction Medicine Specialists Working in Australia 2013

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	TOTAL
Fellows	1	75	2	31	14	9	30	13	174
Fellows aged 65 or less	1	57	0	26	11	8	26	13	142

Comparison of the rate of specialists under the age of retirement (per 10,000 population) revealed a significantly higher proportion of specialists in Tasmania ($Z=1.69$, $p = 0.038$), and a significantly lower proportion of specialists in the Northern Territory compared with the national average (Figure 4-1).

Figure 4-1: Standardised Distribution of Specialists across Australia 2011



Chapter representatives and a range of other addiction medicine specialists reported concerns about the average age of Fellows. It was estimated that a sizable proportion of the current fellowship would be eligible for retirement over the coming years. Further examination of Chapter data revealed that the average age of all fellows was 58 years (Median= 58 years), with:

- 16% (95%CI: 11-23) of the current fellowship eligible to retire within the next three years;
- 27% (95%CI: 21-35) eligible for retirement within the next six years; and
- 41% (95%CI: 34-50) of all current fellows eligible to retire within nine years.

Fellowship concerns were further reinforced by the number of trainees admitted to the program, which was considered insufficient for workforce replenishment. One Fellow reported that around half of all current trainees did not complete their fellowship, preferring instead to commence advanced training until an accredited position became available in an alternative specialty area. Examination of Chapter data for the total number of current

trainees, and the number of new trainees entering the fellowship program over the past three years is presented in Table 4-2, which reveals that only 4-5 trainees have entered the fellowship program over the past two years. Data also indicates that the majority of current trainees are completing at least part of their fellowship program on a part time basis (taking more than the three year full time equivalent to complete training).

Table 4-2: Addiction Medicine Trainees Working in Australia 2013

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	TOTAL
Total current trainees	0	6	1	5	2	0	1	3	18
New trainees 2010	0	0	0	0	0	0	0	0	0
New trainees 2011	0	0	1	1	0	0	0	2	4
New trainees 2012	0	1	0	3	0	0	0	1	5

The Addiction medicine workforce is in decline, a significant proportion of current Fellows are nearing the age of retirement and an insufficient number of trainees are currently being recruited to redress workforce shortages.

4.6 Practice settings for addiction medicine

4.6.1 PUBLIC VERSUS PRIVATE PRACTICE

A survey of Chapter fellows has identified that 79% of Chapter fellows (95% ci: 69-87) work in the public sector, and 48% all fellows (95% ci: 37-59) work in the private sector²⁶. Specifically:

- 52% (95%CI: 41-63) worked in public clinics only;
- 27% (95%CI: 18-38) worked in both public and private clinics; and
- 21% (95%CI: 13-31) work in private clinics only.

4.6.2 PUBLIC PRACTICE ARRANGEMENTS

Within the public sector, patients are identified via medical practitioner referral, or hospital in-reach/community out-reach activities undertaken by non-medical practitioners. Those in need of specialist assessment and or management are triaged to the attention of addiction medicine specialists. All other treatment is provided through advice to the referring medical

26. Calculations are based upon n=85 'valid' cases (excluding those with missing data n= 20/105), Binomial confidence intervals are applied.

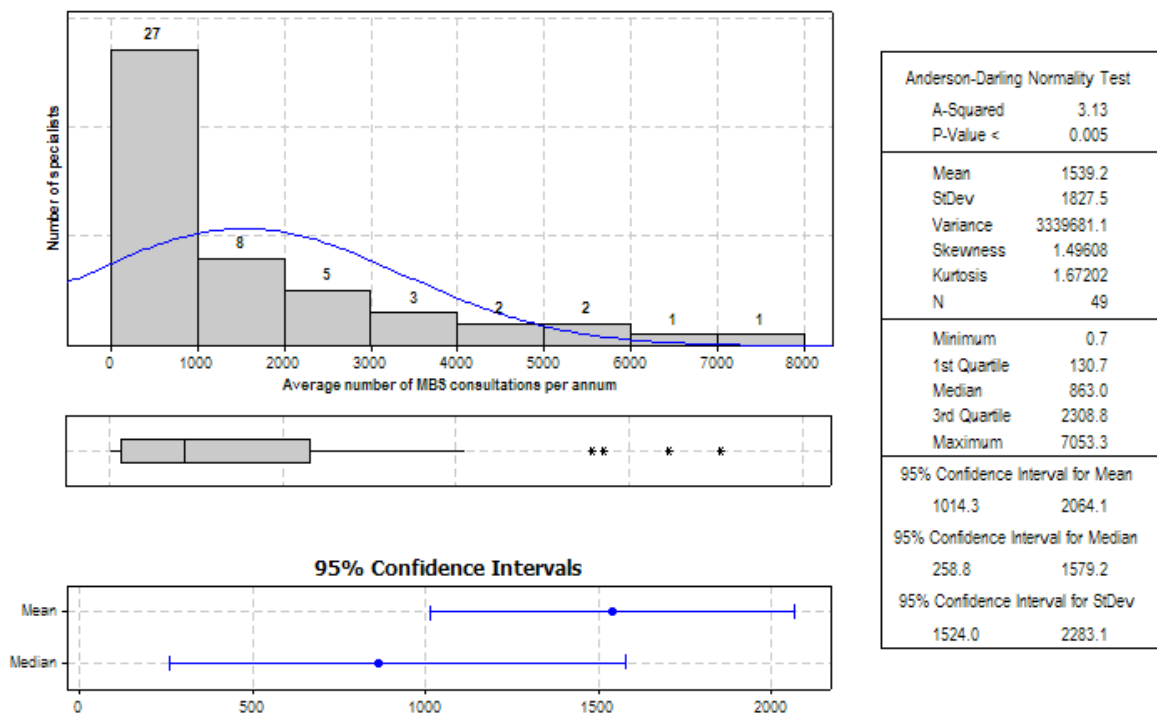
practitioner and/or other health clinician. Public sector data on medical occasions of service were provided by one Australian jurisdiction and were consistent with model of care arrangements described across all jurisdictions, such that:

- Medical practitioners undertook 50% (95%CI: 49-51) of all occasions of service; and
- Addiction medicine specialists undertook around 23% of all occasions of service (and 47% of all medical occasions of service)²⁷.

4.6.3 PRIVATE PRACTICE ARRANGEMENTS

Analysis of de-identified MBS billing data²⁸ from Chapter Fellows indicated that around 68%²⁹ of all addiction medicine specialists are likely to provide private services across Australia. The majority of specialists (55%) are billing less than 1,000 episodes per annum and around 80% of specialists bill less than 3,000 episodes each year. A small number of specialists are undertaking a higher private practice caseload of more than 4,000 episodes each year (Figure 4-2).

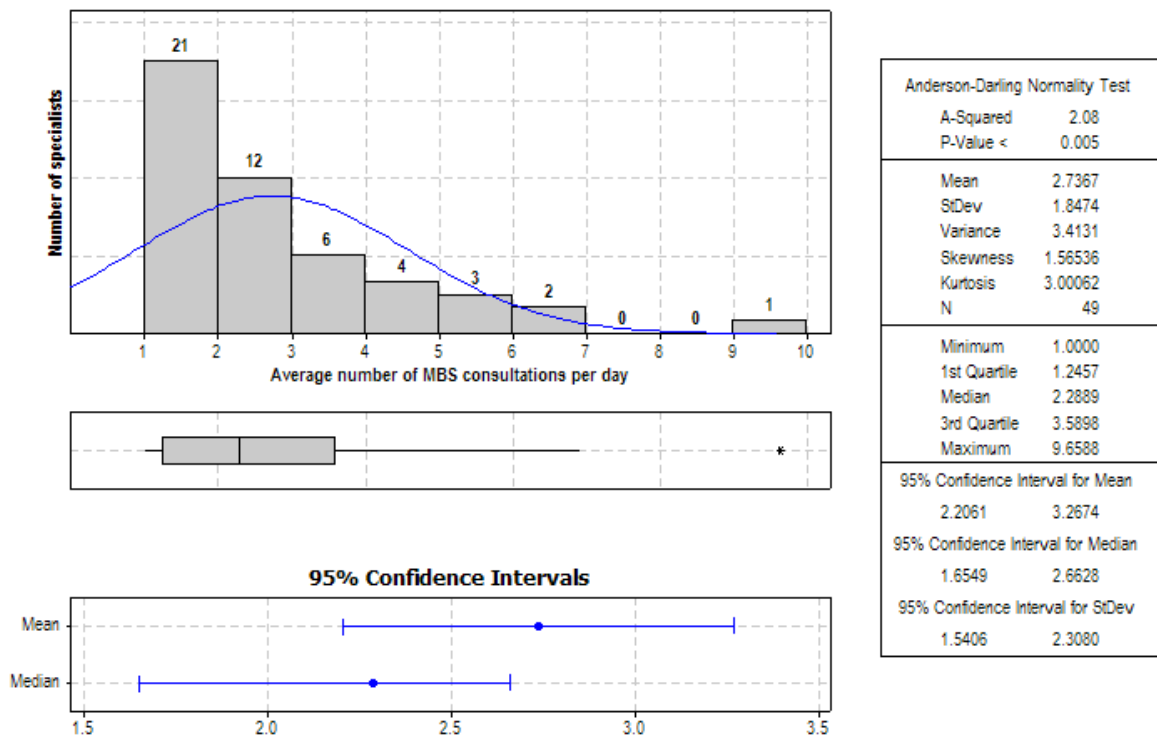
Figure 4-2: Episodes of MBS billing for Addiction Medicine Specialists (2010-12)



27. Based upon reported FTE of specialists in addiction medicine.
 28. Sample response rate = 48.6% (72/148 non-retired fellows < 66 years of age, at 31 December, 2012 who opted in to have their MBS item numbers submitted for extraction of billing data to the MBS).
 29. Estimated from 49 fellows divided by 72 respondents = 68%.

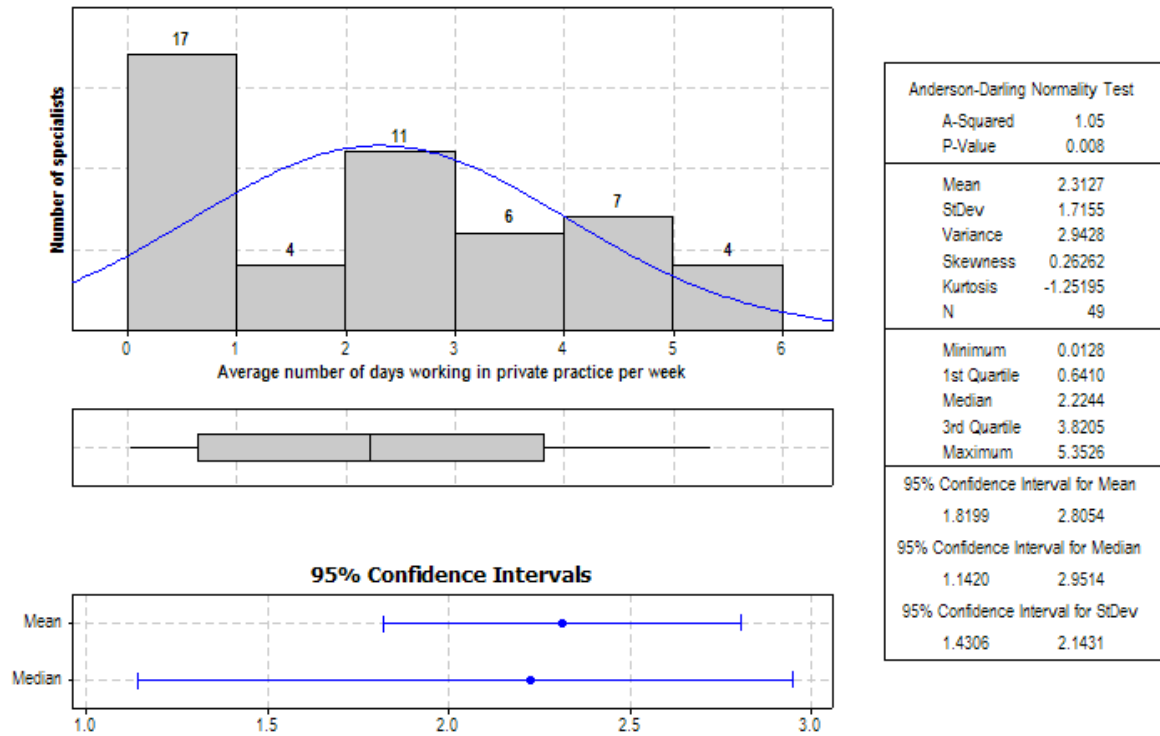
Most specialists (80%) are seeing up to four patients (on average) during any given day. This is consistent with a single session of private practice lasting between 3.5 to 4 hours (Figure 4-3).

Figure 4-3: Average episodes per actual day of MBS billing (2010-12)



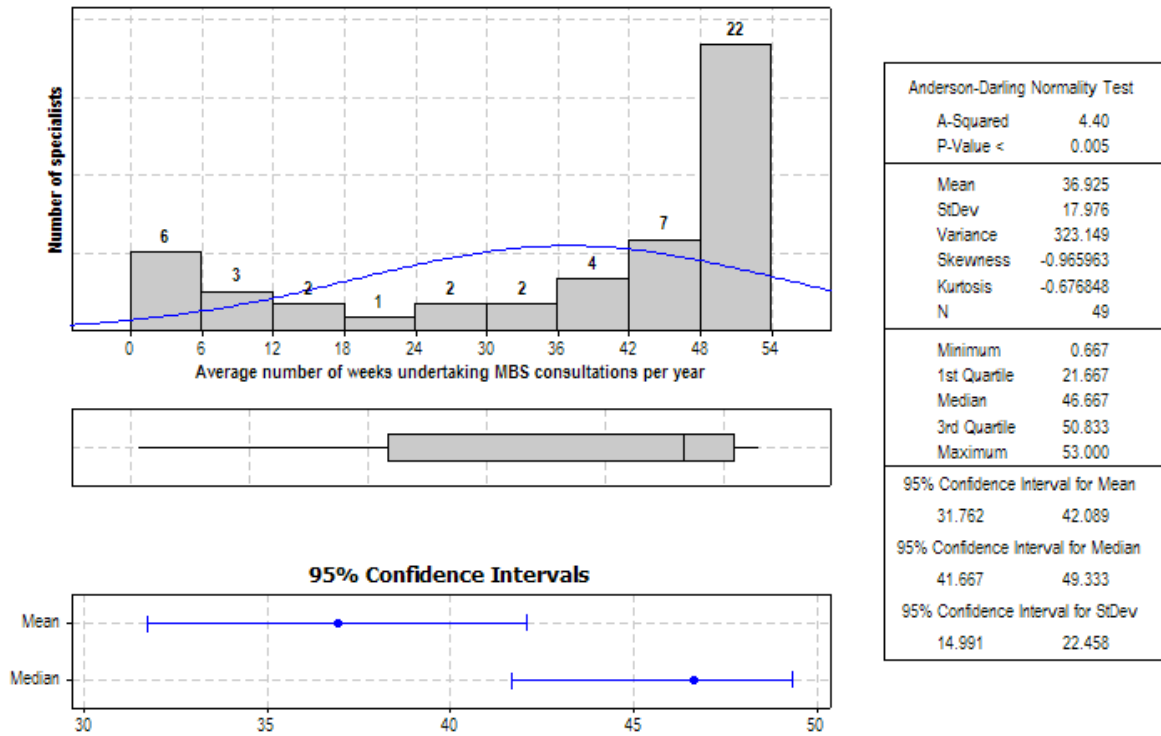
The number of days worked in any given week (on average) varied across the specialist group. Around 35% of all specialists worked up to 1 to 2 days each week, around 43% worked between 2 to 4 days each week, and around 20% worked more than 4 days in private practice each week (Figure 4-4).

Figure 4-4: Average days per week of MBS billing (2010-12)



Most specialists (67%) who worked in private practice did so for more than 36 weeks of any given year. Around a quarter of all specialists (27%) worked in private practice for less than 26 weeks in any given year. This may be associated with fortnightly practice arrangements or private consultations occurring during particular blocks of any 12-month period (Figure 4-5).

Figure 4-5: Average weeks per year of MBS billing (2010-12)



The number of MBS services varied across Australian jurisdictions (

Figure 4-6). Private practice arrangements were more common in New South Wales and Victoria, compared with the other states and territories. The Northern Territory had virtually no private practice billing. The distribution of private sector work was broadly consistent with the relative workforce distribution of specialists, previously identified.

Current MBS billing patterns indicate that the majority of addiction medicine specialists work in private practice between one to three days each week and see up to four patients per day. This billing pattern would be consistent with specialists undertaking around three private practice sessions per week.

Figure 4-6: Addiction Medicine MBS billing by Australian jurisdiction (2010-12)

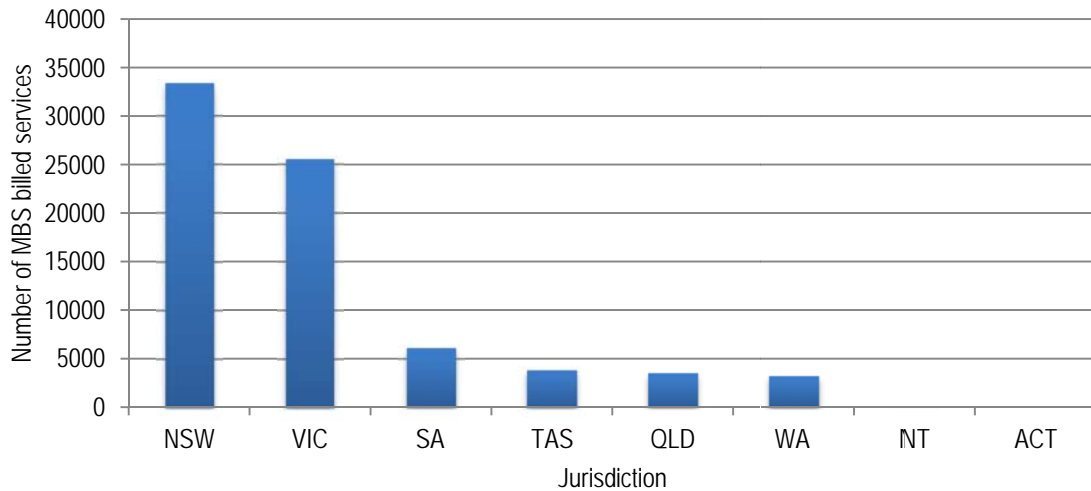
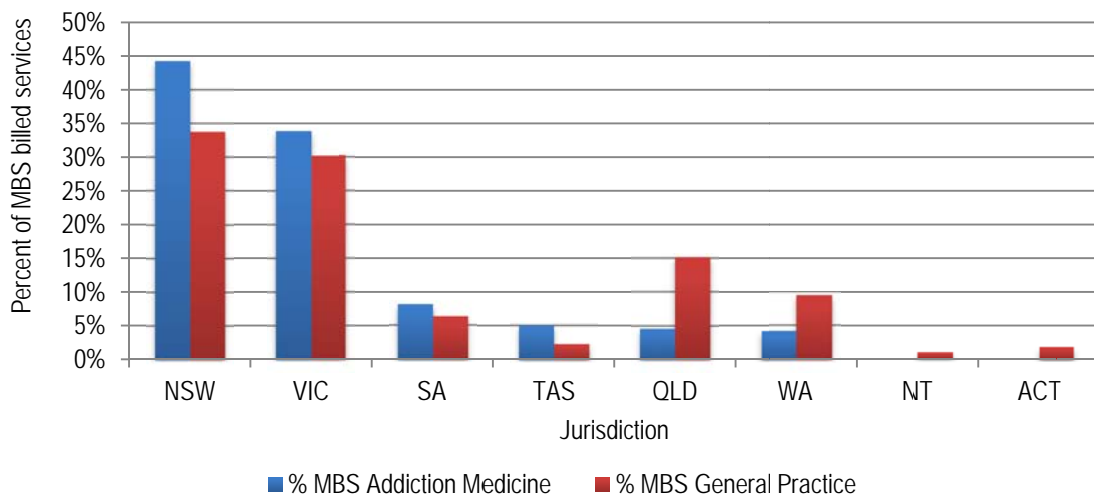


Figure 4-7: Comparison of Addiction Medicine and General Practice billing



Comparison of addiction medicine billing with that of general practitioners indicates that current specialist services are under-supplied in Queensland, Western Australia, the Northern Territory and possibly the Australian Capital Territory.

Differences in the availability of private addiction medicine services vary greatly between each jurisdiction of Australia. Per capita, the availability of private services are over-represented in NSW and VIC, and relatively under-represented in all other jurisdictions (particularly the NT). These findings parallel the workforce distribution of addiction medicine specialists across Australia.

5 Current Private Sector Remuneration Arrangements

5.1 Patient assessment and follow-up

Current MBS billing arrangements available to addiction medicine specialists depend upon whether or not they have registered on the MBS as fellows in addiction medicine, or rely upon other fellowships they have obtained prior to becoming a recognised fellow of the Chapter of addiction medicine. Around 62%³⁰ of all addiction medicine specialists have another independent fellowship. Rates of MBS reimbursement under different fellowships are significantly different from those available to addiction medicine specialists (Table 5-1).

Table 5-1: Fellowships held by specialists and rates of MBS reimbursement³¹

FELLOWSHIP GROUP AND CURRENT ELIBILITY TO CLAIM ON THE MBS	NUMBER OF FELLOWS (% OF FELLOWSHIP)	MBS ITEM GROUP	MBS ITEM FOR LONG OR COMPREHENSIVE ASSESSMENT (BENEFIT AT 85%)	MBS ITEM FOLLOW UP OF MORE THAN 20-25 MINUTES (BENEFIT AT 85%)
Non-vocationally registered general practitioner (no fellowship)	65 (37%)	A2	57 (\$61.00)	54 (\$38.00)
Addiction medicine	174 (100%)	A3	104 (\$72.75)	105 (\$36.55)
Vocationally registered general practitioner	31 (18%)	A1	44 (\$103.50)	36 (\$70.30)
Public Health Medicine	13 (7%)	A13	413 (\$103.45)	412 (\$70.30)
Physician	17 (10%)	A4	110 (\$128.30)	116 (\$64.20)
Psychiatry	44 (25%)	A8	296 (\$221.30)	302 (\$73.50)
Other*	4 (2%)	-	-	-

* Other includes fellows in medical specialties related to Pain Medicine, Anesthetics, and Emergency Medicine.

Under current arrangements, should addiction medicine specialists choose to become registered under the A3 group of MBS items, they would be marginally better off than non-vocationally registered general practitioners for reimbursement of comprehensive assessments, and worse off for reimbursement of follow-up consultations. MBS billing arrangements as any other type of medical practitioner for comprehensive assessments would result in an increase of between 42% (as a vocationally registered general practitioner), to 204% (as a psychiatrist) above the currently available rate. Follow-up consultations would similarly be disadvantaged as all other medical specialists are currently

30. From current registration data supplied by the Australasian Chapter of Addiction Medicine (January 2013).

31. As at February 2013.

remunerated at a higher rate than that available to addiction medicine specialists (by up to 100% - for psychiatrists). Thus in summary:

MBS item level analysis indicates that accredited specialists in all addiction-related disciplines currently receive levels of remuneration that are from 42% to 204% higher than those available to specialists in addiction medicine.

Evidence from current claims data suggest that clinic based assessment-related items (100% of total) for addiction medicine specialists (2010-12), comprised:

- 43% (6,294) for item 44 - A1 General Practitioner comprehensive assessment;
- 40% (5,789) for item 57 - A2 Non-referred prolonged consultation;
- 15% (2,133) for item 110 - A4 Consultant Physician initial attendance; and
- 2% (356) for item 104 - A3 Specialist initial attendance.

Available evidence also demonstrates that the most frequent clinic based treatment-related items (95% of total) for addiction medicine specialists (2010-12), comprised:

- 64% (83,928) for item 23 - A1 General Practitioner consultation more than to 20 minutes;
- 13% (17,286) for item 36 - A1 General Practitioner consultation up to 40 minutes;
- 9% (12,151) for item 53 - A2 Non-referred standard consultation less than 25 minutes;
- 8% (9,948) for item 116 - A4 Consultant Physician subsequent attendance.

Based upon these findings, it might reasonably be concluded that:

MBS claims data demonstrates that current billing patterns of specialists favour use of alternative MBS items for assessment and treatment to those currently available for registered addiction medicine specialists.

5.2 Complex assessment, case conferencing and groups

Moreover, many other specialty areas have access to a wider number of MBS items appropriate to the scope of their professional practice (Table 5-2). Examination of the current MBS identifies that:

- Vocationally registered GPs have additional items to support complex case planning, multi-disciplinary case conferencing, and family/group therapy;
- Public health physicians have access to complex case planning and group treatment items;
- Physicians have access to complex case planning and multi-disciplinary case conferencing; and

- Psychiatrists have access to complex planning, case conferencing and group/family therapy items.

Addiction medicine specialists do not have current access to any equivalent items for complex assessment and treatment planning, for multidisciplinary case conferencing, and for family/group therapy.

At present, if these services are provided, MBS claims need to be raised against other fellowship credentials.

Table 5-2: MBS items available to support professional scopes of practice

FELLOWSHIP GROUP AND CURRENT ELIGIBILITY TO CLAIM ON THE MBS	MBS ITEM FOR LONG OR COMPREHENSIVE ASSESSMENT (BENEFIT AT 85%)	MBS ITEM FOLLOW UP > 20-25 MINUTES (BENEFIT AT 85%)	ASSESS OR FOLLOW-UP FOR COMPLEX TREATMENT PLANNING	MULTI-DISCIPLINARY CASE CONFERENCE ORGANISATION <31 MINS	GROUP AND/OR FAMILY TREATMENT UP TO 6 PTS > 40 MINS
Non-vocationally registered general practitioner (no fellowship)	57 (\$61.00)	54 (\$38.00)	Nil	Nil	Nil
Addiction medicine	104 (\$72.75)	105 (\$36.55)	Nil	Nil	Nil
Vocationally registered general practitioner	44 (\$103.50)	36 (\$70.30)	721 (\$141.40)	739 (\$118.60)	172 (\$147.75)
Public Health Medicine	413 (\$103.45)	412 (\$70.30)	413 (\$103.45)	Nil	417 (\$128.45)
Physician	110 (\$128.30)	116 (\$64.20)	132 (\$224.35)	822 (\$177.40)	Nil
Psychiatry	296 (\$221.30)	302 (\$73.50)	291 (\$384.80)	855 (\$118.25)	342 (\$251.70)

Current claims data for addiction medicine specialists was examined to identify the proportion of MBS items relating to Assessment, Treatment, Complex Assessment and Management, Multidisciplinary Case Conferencing and Family/Group therapy.

The proportion of items in each category is presented in Figure 5-1. The proportion cost of the same activities (at 2013 MBS item rebates) is presented in Figure 4-2. Analysis reveals that:

Complex assessment and treatment planning, together with multi-disciplinary case conferencing currently occupies around 17% of all current MBS related activity, and up to 26% of MBS related costs for addiction medicine specialists.

These activities and costs are restricted to those specialists who can claim MBS items as other types of medical practitioners.

Figure 5-1: Proportion of MBS item groups claimed by AM specialists (2010-12)

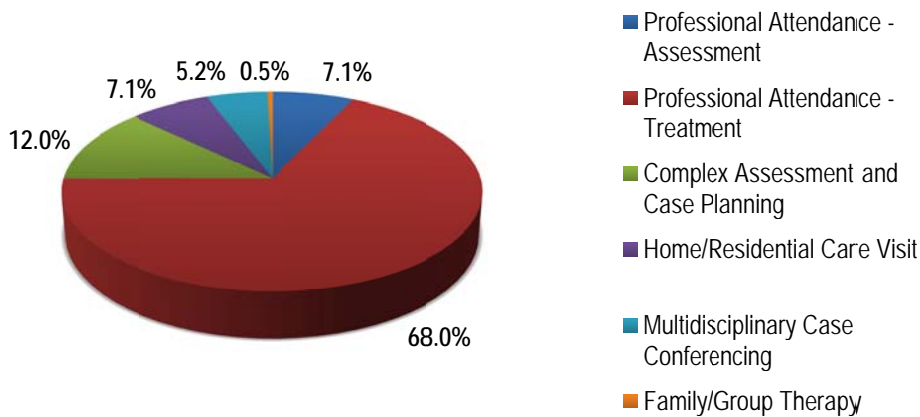
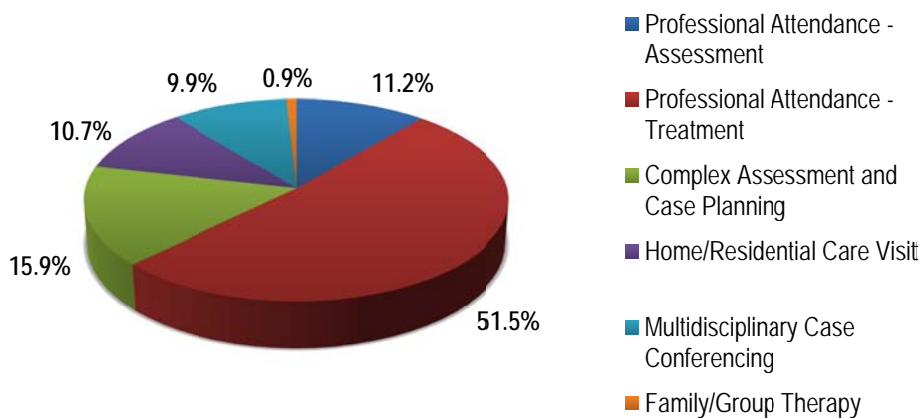


Figure 5-2: Proportion of MBS item group costs for AM specialists (at \$ 2013)



It was considered useful to compare the proportion of similar activities with data reported from general practitioners (BEACH, 2012). Comparisons are presented in Figure 5-3 and Figure 5-4.

Figure 5-3: General Practice billing of MBS item groups for addiction problems

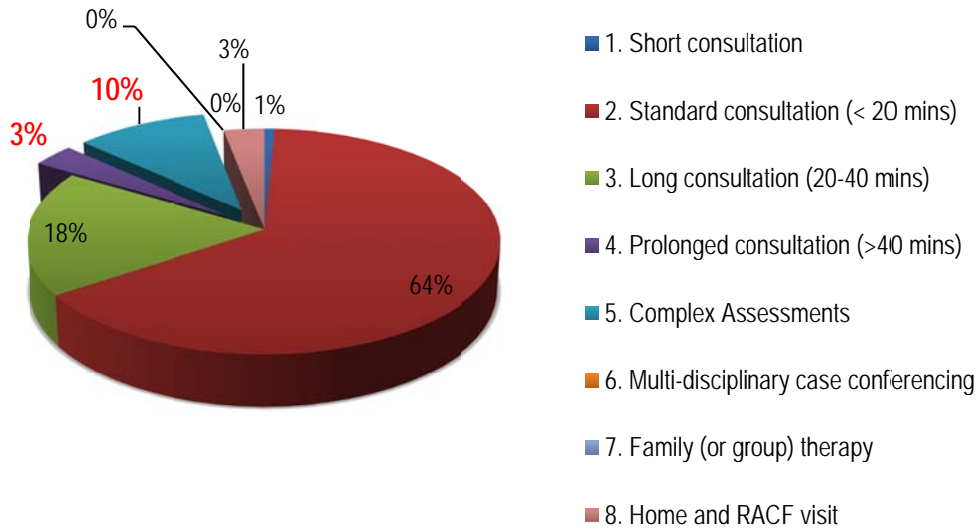
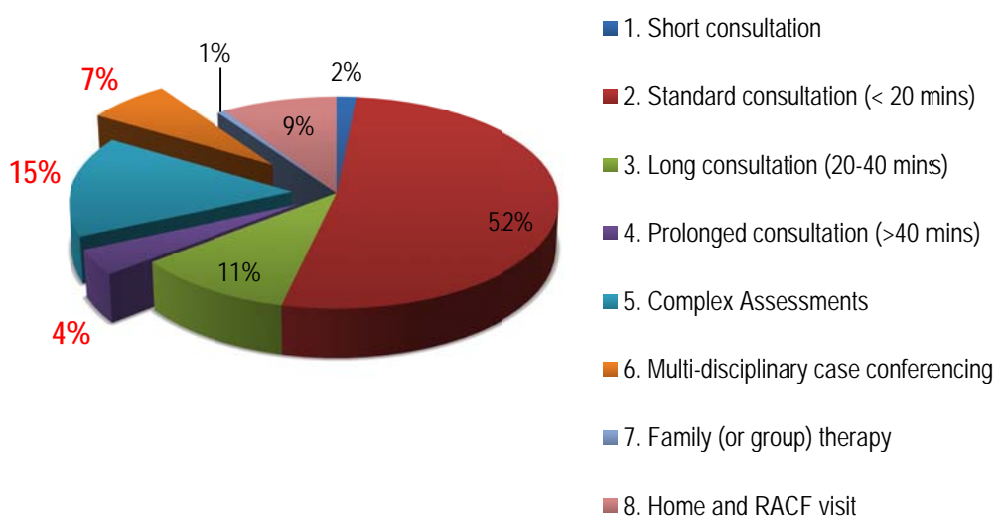


Figure 5-4: Addiction Medicine billing of MBS item groups for addiction problems



The data revealed two notable differences in the clinical activities undertaken by general practitioners compared with those undertaken by addiction medicine specialists:

- Addiction medicine specialists spend (on average) more time with patients compared with general practitioners; and

- Addiction medicine specialists spend more time in prolonged consultations, complex assessments, and multidisciplinary case conferencing compared with general practitioners.

These findings are consistent with previous findings that general practitioners have more limited time to spend with patients experiencing addiction-related problems. They also identify that specialists spend more time in complex assessment and care-coordination.

5.3 Modelled Costs of Current Expenditure

The cost of current expenditure on addiction medicine was modelled from available MBS data. The approach to modelling is outlined in Appendix 5. A summary of the data is shown below in Table 5-3, and has been used as a basis for comparison modelling of alternative billing scenarios described in Chapter 6 and presented in Chapter 7.

Table 5-3: Summary of sample MBS billing data – Addiction medicine

	TOTALS			AVERAGE/SERVICE		
	2010	2011	2012	2010	2011	2012
Providers	40	45	44			
Services	73,608	74,069	69,189			
	\$	\$	\$	\$	\$	\$
Charge	4,487,531	4,679,203	4,508,730	60.97	63.17	65.17
Benefit	3,841,670	4,046,692	3,866,794	52.19	54.63	55.89
Out of Pocket	645,861	632,512	641,936	8.77	8.54	9.28

The overall number of services within the limited time series peaked in 2011 and then declined below previously observed levels in 2012. Benefits to specialists followed a parallel trajectory, however out-of-pocket costs to the consumer followed a different pattern. Out-of-pocket costs decreased in 2011 and increased in 2012, this was attributed to increases in the volume of services for item numbers 37, 104 and 105 which have large and increasing average out-of-pocket fees.

5.3.1 DEMAND AND FINANCIAL PROJECTIONS

Separate growth estimates were identified for “assessment” and “treatment” type items. These growth factors were then applied to the MBS sample data shown in Table 5-3 and the results are provided in Table 5-4.

Note that the amounts shown for 2013 to 2015 are expressed in terms of 2012 dollars. The impact of inflation is included in Chapter 7.

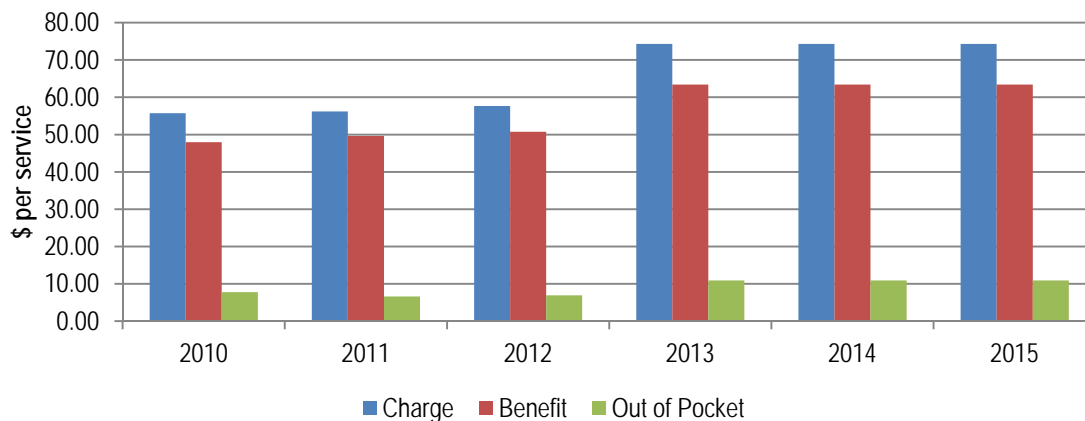
Table 5-4: Estimated MBS billing data for total demand – Addiction medicine

	2010	2011	2012	2013	2014	2015
Services	159,184	154,463	149,742	145,021	140,300	135,579
	\$	\$	\$	\$	\$	\$
Charge	9,738,562	9,685,233	9,800,188	9,551,055	9,301,922	9,052,790
Benefit	8,335,183	8,386,631	8,397,550	8,173,726	7,949,901	7,726,077
Out of Pocket	1,403,379	1,298,601	1,402,638	1,377,329	1,352,021	1,326,713

Addiction medicine demand is estimated at 149,742 services in 2012 and this is expected to decline to 135,579 services by 2015. Benefits paid over the same period fall from \$8.398m in 2012 to \$7.726m in 2015.

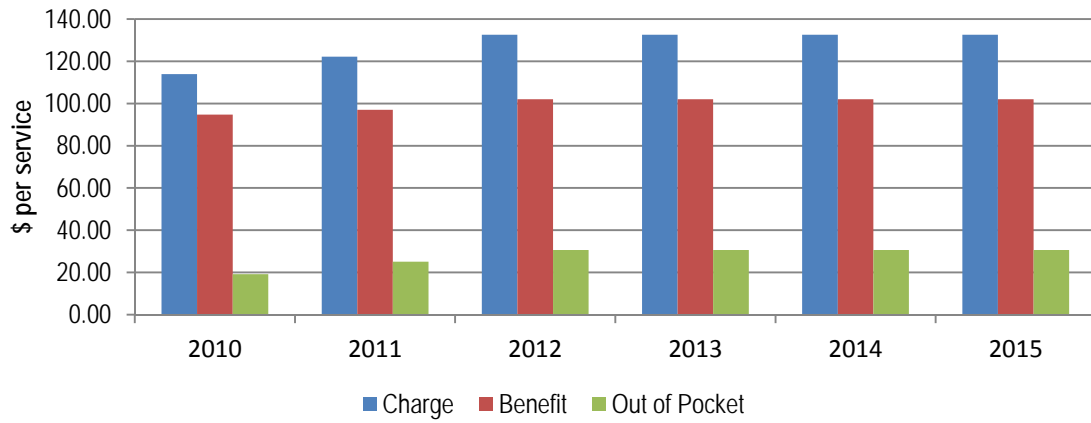
Figure 5-5 and Figure 5-6 show the average charge, benefit and out-of-pocket amounts for treatment and assessment services respectively under current operating conditions

Figure 5-5: Treatment services – Average \$/service



In 2012, the average charge for treatment type services was \$57.68, the benefit was \$50.77 and the out-of-pocket amount was \$6.91.

Figure 5-6: Assessment services – Average \$/service



The averages for assessment type services in 2012 were a charge of \$132.62, benefit \$102.02 and out-of-pocket \$30.60.

6 Options for Future Private Sector Remuneration

A number of dedicated MBS item numbers have been proposed in the DAP by MSAC, following earlier consultations with addiction medicine specialists. A number of additional MBS items have been more recently suggested to align the scope of practice of addiction medicine specialists in both the public and private sectors.

These item numbers have been suggested in accordance with several key principles, including (but not necessarily limited to):

- Professional recognition: Of the specialty of addiction medicine alongside other specialties acknowledged by the Australian Medical Council;
- Equity of reimbursement: Of addiction medicine specialists in an equivalent manner to other accredited specialists claiming on the MBS;
- Safe and effective care: To enable patients to receive safe and effective interventions that assist with substance withdrawal and recovery from addiction;
- Responsiveness: To enable the best interests of patients to be addressed in a timely and comprehensive manner by the most appropriate specialist, rather than distributing service provision across multiple alternative service providers in order to meet patient need;
- Efficiency: To provide the most appropriate suite of services in order to achieve maximum outcomes within a minimum number of occasions of service for each patient;
- Access to services: By promoting workforce development of the specialty area to increase specialist supply in both the public and private sectors;
- Care co-ordination: To streamline access to the most appropriate range of medical, psychological, social, and legal services required to address the needs of patients with addiction related problems;
- Minimal cost to consumers: To minimise out-of-pocket costs to consumers associated with multiple specialty referrals; and
- Ethical behaviour: To minimise over servicing to patients whilst maximising potential benefits of clinical interventions (however applied in accordance with best available evidence).

Proposed options for future MBS billing arrangements are presented in the following sections.

6.1 MBS items for Professional attendances

Two options for MBS items have been proposed to reimburse professional consultations undertaken by addiction medicine specialists.

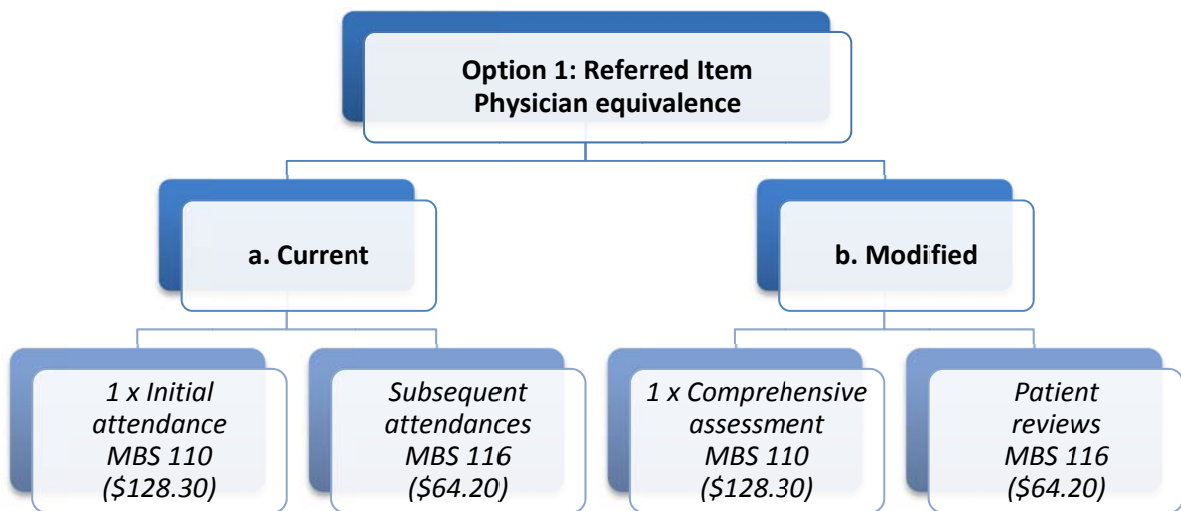
6.1.1 PHYSICIAN-EQUIVALENT ITEMS

Option 1 would involve ‘physician-equivalent’ items enabling access to the A4 MBS Group. Specifically, this level of remuneration would enable specialists to claim reimbursement for:

- One initial patient assessment; and
- An unlimited number of patient follow-up items.

However, the capacity to claim each type of item would require revision. A number of patients seen by addiction medicine specialists are unable to receive an initial comprehensive assessment at the first point of contact (e.g., due to the need to withdraw from intoxication). Consultation with Chapter representatives has indicated that up to 30% of all patients seen at the point of initial contact may require such services and thus be ineligible for comprehensive assessment. Accordingly a “strict” application of the current physician equivalent item number would not enable reimbursement for comprehensive assessment, which may need to occur on a second or subsequent consultation.

Figure 6-1: Proposed structure for physician-equivalent items



The proposed MBS item descriptors for physician equivalent items are presented in Figure 6-2. Modifications to the MBS equivalent items for physicians have been highlighted in red to identify changes for addiction medicine specialists that align with their clinical practice.

Figure 6-2: Proposed items descriptors for physician equivalent MBS consultations

<p>ADDICTION MEDICINE SPECIALIST, REFERRED DETAILED ASSESSMENT</p> <p><u>MBS Item 6018</u></p> <p>Professional attendance by an addiction medicine specialist in his or her specialty, where the patient is referred to him or her by a referring medical practitioner.</p> <p>Detailed assessment provided once in a single course of treatment, provided at any point during that course of treatment.</p> <p>Fee: \$150.90 Benefit: 75% = \$113.20 85% = \$128.30</p>
<p>ADDICTION MEDICINE SPECIALIST, REFERRED SHORTER ASSESSMENT OR PATIENT REVIEW</p> <p><u>MBS Item 6019</u></p> <p>Patient assessment prior to or following a detailed assessment under item 6018 in a single course of treatment, or following an initial complex treatment and management plan under item 6023 or following a review of that plan under item 6024 in a single course of treatment.</p> <p>Fee: \$75.50 Benefit: 75% = \$56.65 85% = \$64.20</p>

Two scenarios were developed to model the potential impact of these items upon the MBS:

- Physician-equivalent scenario minus 30% (strict equivalence). Under this arrangement:
 - ▶ Costs of all observed assessment items were transferred/substituted to a rate of the current physician-equivalent MBS item 110 (initial attendance).
 - 30% of these items were converted to ‘treatment’ episodes in accordance with feedback from the Fellowship that up to 30% of patients would otherwise be ineligible for an initial attendance according to the current item 110 (and a subsequent attendance at item rates of 116 as an initial attendance had not been previously charged).
 - Items relating to complex assessment or management planning were included as components of assessment.
 - ▶ Costs of all observed treatment items (including 30% of patient assessment items) were transferred/substituted to a rate of the current physician-equivalent MBS item 116 (subsequent attendance).
 - Items relating to multidisciplinary case conferencing and group/family therapy were included as components of treatment.
- Physician-equivalent scenario (modified equivalence). Under this arrangement:
 - ▶ Costs of all observed assessment items were transferred/substituted to rate of the current physician-equivalent MBS item 110 (initial attendance).
 - All assessment episodes were retained, in accordance with feedback from the Fellowship that up to 30% of patients would be ineligible for any comprehensive assessment at the point of initial attendance and thus overbilled for initial assessment (an MBS 116 item could not be charged under current MBS specifications as there had not been an initial attendance item for these patients).
 - Items relating to complex assessment or management planning were included as components of assessment.
 - ▶ Costs of all observed treatment items were transferred/substituted to a rate of the current physician-equivalent MBS item 116 (subsequent attendance).

- Items relating to multidisciplinary case conferencing and group/family therapy were included as components of treatment.

Estimations derived from these scenarios are separately presented in Chapter 7.

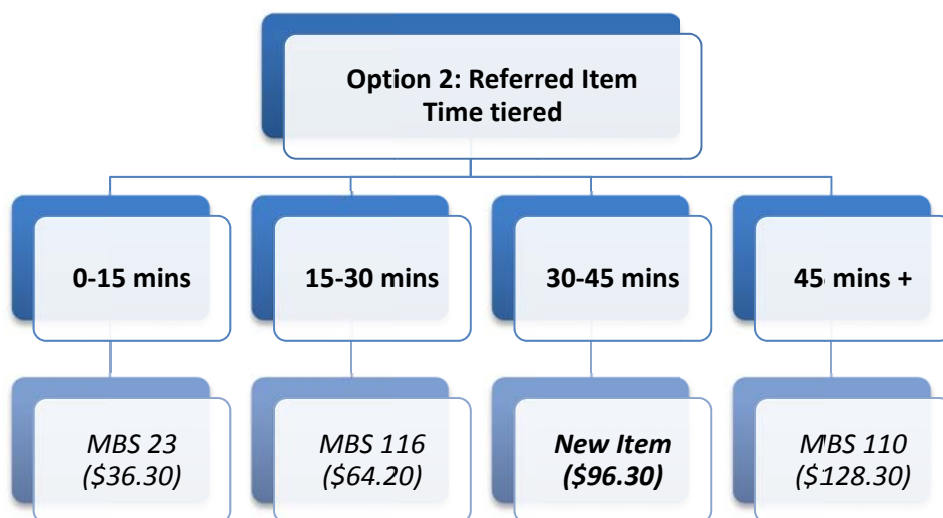
Time-tiered items

An alternative approach to claiming physician-equivalent items for addiction medicine would be to allow a time-tiered structure by which specialists could bill for actual time spent with any individual patient. This approach parallels existing MBS items available for general practice (items: 3, 23, 36, 44) and psychiatry (items: 300, 302, 304, 289). It has been previously proposed that time-tiered items would enable greater flexibility to respond to the fluctuating needs of individual patients.

Under this structure, time-tiered items could be anchored so as not to exceed the physician-equivalent rates available under the A4 schedule (items 110 and 116). A proposed structure for time-tiered items is presented in Figure 6-3, to allow MBS billing for:

- Consultations that lasts not more than 15 minutes duration;
- Consultations that last more than 15 but not more than 30 minutes duration;
- Consultations that last more than 30 but not more than 45 minutes duration; and
- Consultations that last for more than 45 minutes duration.

Figure 6-3: Proposed structure for time-tiered items



The proposed MBS item descriptors for physician-equivalent items are presented in Figure 6-4.

Figure 6-4: Proposed items descriptors for physician-equivalent MBS consultations

Category 1 – Professional attendances		
<u>MBS Item 6018</u>		
Professional attendance by an addiction medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an attendance of not more than 15 minutes duration		
Fee: \$42.71	Benefit: 75% = \$32.03	85% = \$36.30
<u>MBS Item 6019</u>		
Professional attendance by an addiction medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an attendance of more than 15 minutes, but not more than 30 minutes duration		
Fee: \$75.50	Benefit: 75% = \$56.65	85% = \$64.20
<u>MBS Item 6020</u>		
Professional attendance by an addiction medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an attendance of more than 30 minutes, but not more than 45 minutes duration		
Fee: \$113.29	Benefit: 75% = \$84.97	85% = \$96.30
<u>MBS Item 6021</u>		
Professional attendance by an addiction medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an attendance of more than 45 minutes duration		
Fee: \$150.90	Benefit: 75% = \$113.20	85% = \$128.30

The scenario developed to model the potential impact of these items upon the MBS involved:

- Anchoring tier 1 (up to 15 minutes duration) at the GP equivalent rate of an MBS item 23;
- Anchoring tier 2 (more than 15 but less than 30 minutes duration) at the physician-equivalent item rate of 116 for a subsequent attendance;
- Anchoring tier 3 (more than 30 but less than 45 minutes duration) at a costing midpoint between tier 2 and tier 4; and
- Anchoring tier 4 (more than 45 minutes duration) at the physician-equivalent item rate of 110 for an initial attendance.
- Estimating the proportion of claims within each of the four tiers:
 - ▶ Based upon current item volumes for assessment and treatment related MBS items it was assumed that 11% of all items would be billed at the highest time tier (for patient assessments).
 - ▶ The remaining items were estimated at the following rates of billing (to maximise efficiency and revenue arising from clinical practice arrangements).
 - 13.35% (15% of assessment residual) for short/standard consultations (tier 1)
 - 62.30% (70% of assessment residual) for physician follow-up consultations (tier 2)
 - 13.35% (15% of assessment residual) for prolonged follow-up consultations (tier 3)

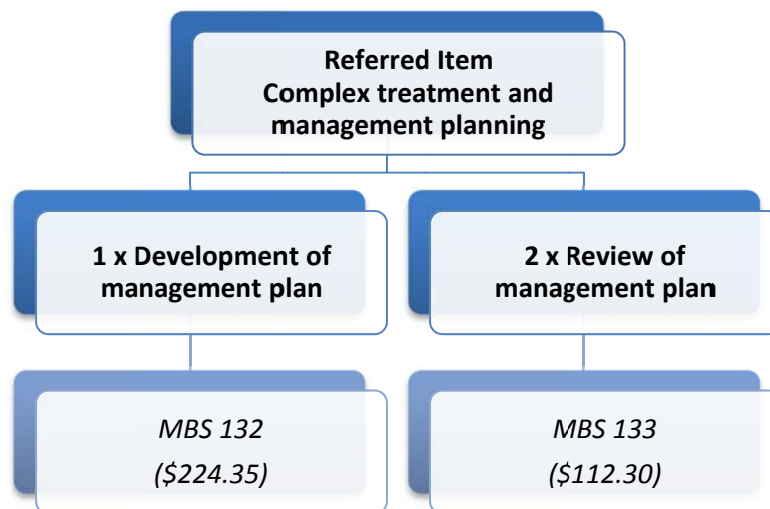
- Conducting a sensitivity analysis on the impact of changes in billing volumes within the first three tiers, to identify variations at:
 - ▶ 10-20% of the assessment residual billed at tier 1.
 - ▶ 60-80% of the assessment residual billed at tier 2.
 - ▶ 10-20% of the assessment residual billed at tier 3.

Estimations derived from these scenarios are separately presented in Chapter 7.

6.2 MBS items for complex treatment and management planning

Fellow consultation and analysis of current MBS data indicates that around 10% of all clinical activities undertaken by addiction medicine specialists relates to the preparation of complex treatment and management plans. Accordingly, a set of equivalent MBS items to those available to general practitioners, physicians and psychiatrists is to undertake complex treatment and management planning is proposed (Figure 6-5).

Figure 6-5: Proposed items for complex treatment and management planning



It is suggested that the item descriptors follow the same structure as MBS items currently available to physicians (Figure 6-6).

Figure 6-6: Proposed items descriptors for complex treatment and management planning

<p>ADDICTION MEDICINE SPECIALIST, REFERRED PATIENT COMPLEX TREATMENT AND MANAGEMENT PLAN - SURGERY OR HOSPITAL</p> <p><u>MBS Item 6023</u> Professional attendance of at least 45 minutes duration for an initial assessment of a patient with at least two morbidities, where the patient is referred by a referring practitioner, and where:</p> <p>a. assessment is undertaken that covers:</p> <ul style="list-style-type: none"> - a comprehensive history, including psychosocial history and medication review; - comprehensive multi or detailed single organ system assessment; - the formulation of differential diagnoses; and <p>b. consultant physician treatment and management plan of significant complexity is developed and provided to the referring practitioner that involves:</p> <ul style="list-style-type: none"> - an opinion on diagnosis and risk assessment - treatment options and decisions - medication recommendations <p>Not being an attendance on a patient in respect of whom, an attendance under items 104, 110, 6018 or 6019 has been received on the same day by the same addiction medicine specialist.</p> <p>Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been made under this item or item 6018 for attendance by the same addiction medicine specialist.</p> <p>Fee: \$263.90 Benefit: 75% = \$197.95 85% = \$224.35</p>
<p>ADDICTION MEDICINE SPECIALIST, REVIEW OF REFERRED COMPLEX PATIENT TREATMENT AND MANAGEMENT PLAN - SURGERY OR HOSPITAL</p> <p><u>MBS Item 6024</u> Professional attendance of at least 20 minutes duration subsequent to the first attendance in a single course of treatment for a review of a patient with at least two morbidities where:</p> <p>a. a review is undertaken that covers:</p> <ul style="list-style-type: none"> - review of initial presenting problem/s and results of diagnostic investigations - review of responses to treatment and medication plans initiated at time of initial consultation comprehensive multi or detailed single organ system assessment, - review of original and differential diagnoses; and <p>b. a modified consultant physician treatment and management plan is provided to the referring practitioner that involves, where appropriate:</p> <ul style="list-style-type: none"> - a revised opinion on the diagnosis and risk assessment - treatment options and decisions - revised medication recommendations <p>Not being an attendance on a patient in respect of whom, an attendance under item 104, 110, 6018 or 6019 has been received on the same day by the same addiction medicine specialist.</p> <p>Being an attendance on a patient in respect of whom, in the preceding 12 months, payment has been made under item <u>6023</u> by the same addiction medicine specialist, payable no more than twice in any 12-month period.</p> <p>Fee: \$132.10 Benefit: 75% = \$99.10 85% = \$112.30</p>

Scenario modelling for complex treatment and management planning items assumed that:

- Costs for 5% of all observed assessment (tier 4) items would be transferred to rate of complex assessment and treatment planning at the physician-equivalent MBS item rate of 132 (development of a plan). Whilst MBS data suggests that up to 12% of activity may be related to complex treatment and management, specific data relating to physician-equivalent MBS items was significantly lower – thus a conservative estimate of 5% of all assessments was assumed.
- The number of services corresponding to 10% of assessments was also converted to a physician-equivalent rate for follow-up of complex assessment and treatment planning (tier 2) using MBS item 133. (10% of assessments were converted to account for a maximum of two follow-ups for each complex assessment undertaken).
- These converted rates were added to the existing estimates derived for time-tiered items.

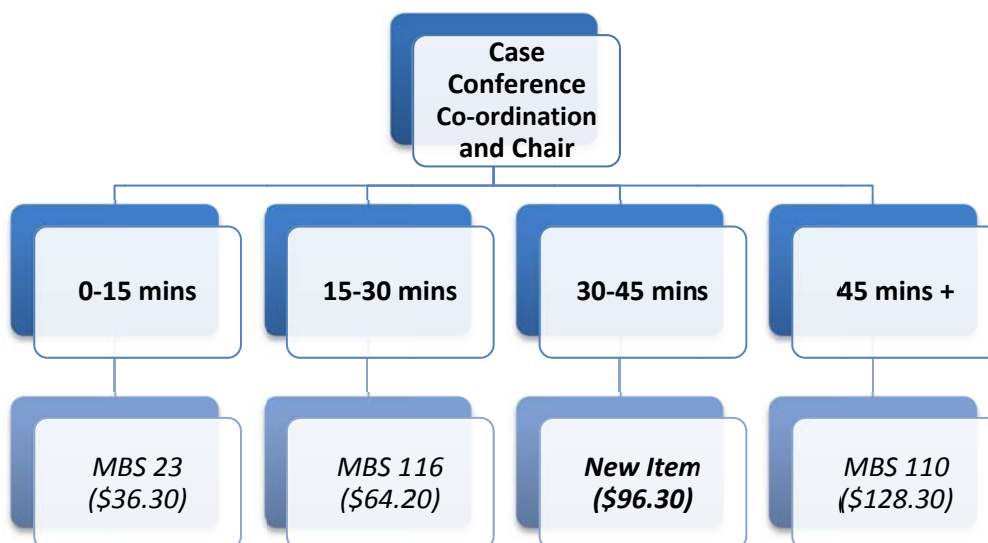
Results of the scenario modelling are presented in Chapter 7.

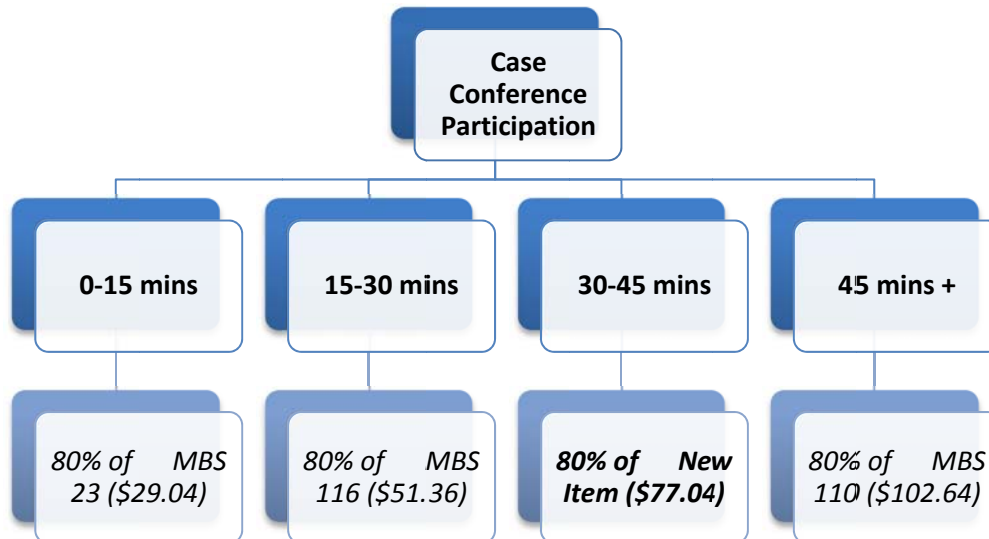
6.3 MBS items for multidisciplinary case conferencing

The proposed item structure for multidisciplinary case conferencing is presented in Figure 6-7, to parallel similar MBS items available to general practitioners, physicians and psychiatrists. To promote efficiency, these items have been constructed to replicate the time-tiered items previously discussed. Differences exist in the percentage of rebate depending upon whether:

- The specialist has previously co-ordinated case conference participation by different professionals and acted as case conference chair. In this case full time tier rates may apply; or
- The specialist has participated in a case conference co-ordinated and chaired by another professional. In this case an 80% benefit of the full rebate may apply.

Figure 6-7: Proposed structure for multi-disciplinary case conferencing items





Proposed item descriptors for multidisciplinary case conferencing are presented in Figure 6-8.

Figure 6-8: Proposed descriptors for multidisciplinary case conferencing items

MULTIDISCIPLINARY CASE CONFERENCE ORGANISATION AND CHAIR – ADDICTION MEDICINE SPECIALIST			
<u>MBS Item 6028</u>			
Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to ORGANISE AND CHAIR A COMMUNITY CASE CONFERENCE of up to 15 minutes, with a multidisciplinary team of at least three other formal care providers of different disciplines.			
Fee: \$42.71	Benefit: 75% = \$32.03	85% = \$36.30	
<u>MBS Item 6029</u>			
Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to ORGANISE AND CHAIR A COMMUNITY CASE CONFERENCE of at least 15 minutes but less than 30 minutes, with a multidisciplinary team of at least three other formal care providers of different disciplines.			
Fee: \$75.50	Benefit: 75% = \$56.65	85% = \$64.20	
<u>MBS Item 6031</u>			
Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to ORGANISE AND CHAIR A COMMUNITY CASE CONFERENCE of at least 30 minutes but less than 45 minutes, with a multidisciplinary team of at least three other formal care providers of different disciplines			
Fee: \$113.29	Benefit: 75% = \$84.97	85% = \$96.30	
<u>MBS Item 6032</u>			
Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to ORGANISE AND CHAIR A COMMUNITY CASE CONFERENCE of at least 45 minutes, with a multidisciplinary team of at least three other formal care providers of different disciplines			
Fee: \$150.90	Benefit: 75% = \$113.20	85% = \$128.30	

MULTIDISCIPLINARY CASE CONFERENCE PARTICIPATION - ADDICTION MEDICINE SPECIALIST

MBS Item 6034

Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to **PARTICIPATE IN A COMMUNITY CASE CONFERENCE** (other than to organise and to coordinate the conference) of a least 15 minutes but less than 30 minutes, with a multidisciplinary team of at least two other formal care providers of different disciplines.

Fee: \$34.16 Benefit: 75% = \$25.62 85% = \$29.04

MBS Item 6035

Attendance by an addiction medicine specialist in the practice of his or her specialty, as a member of a case conference team, to **PARTICIPATE IN A COMMUNITY CASE CONFERENCE** (other than to organise and to coordinate the conference) of a least 15 minutes but less than 30 minutes, with a multidisciplinary team of at least two other formal care providers of different disciplines.

Fee: \$60.42 Benefit: 75% = \$45.32 85% = \$51.36

MBS Item 6037

Attendance by a consultant physician in the practice of his or her specialty, as a member of a case conference team, to **PARTICIPATE IN A COMMUNITY CASE CONFERENCE** (other than to organise and to coordinate the conference) of at least 30 minutes but less than 45 minutes, with a multidisciplinary team of at least two other formal care providers of different disciplines.

Fee: \$90.63 Benefit: 75% = \$67.98 85% = \$77.04

MBS Item 6038

Attendance by a consultant physician in the practice of his or her specialty, as a member of a case conference team, to **PARTICIPATE IN A COMMUNITY CASE CONFERENCE** (other than to organise and to coordinate the conference) of at least 45 minutes, with a multidisciplinary team of at least two other formal care providers of different disciplines.

Fee: \$120.75 Benefit: 75% = \$90.56 85% = \$102.64

Scenario modelling for complex case conferencing items assumed that:

- Costs for an additional 5% of all treatment items (uniformly distributed across tiers 1-4) were incorporated at the newly established time-tiered rates to accommodate two new items relating to:
 - ▶ Case conference participation having co-ordinated other professional involvement prior to the meeting (as an unbilled activity) and acting as case conference chair during the meeting, to be billed at the full rates of the new time-tiered schedule; and
 - ▶ Case conference participation (without prior co-ordination and without responsibilities of the chair), to be billed at 80% of the full rates of the new time-tiered schedule.
- These costs would be added to the existing estimates derived for time-tiered items with complex treatment and management planning.

Results of modelling for this scenario are also presented in Chapter 7.

6.4 Additional items proposed for addiction medicine

A number of additional items have also been proposed for addiction medicine listing on the MBS. These items fall into two groups relating to:

- Telehealth consultations, available to all other medical practitioners; and
- Group therapy, undertaken by a small but significant number of addiction medicine specialists.

The proposed item descriptors for group therapy consultations are presented in Figure 6-9 as equivalent current MBS items 342 for psychiatrists. Given the small volume of current MBS activity in this area, separate modelling of the impact of this item has not been undertaken.

Figure 6-9: Proposed descriptor for group therapy item

ADDICTION MEDICINE SPECIALIST – GROUP THERAPY		
<u>MBS Item 6042</u>		
Group therapy (including any associated consultation with a patient taking place on the same occasion and relating to the condition for which group therapy is conducted) of not less than 1 hours duration given under the continuous direct supervision of an addiction medicine specialist in the practice of his or her specialty of addiction medicine where the patients are referred to him or her by a referring practitioner.		
- GROUP THERAPY on a group of 2 to 9 unrelated patients OR FAMILY GROUP therapy on a group of more than 2 patients, EACH PATIENT		
Fee: \$49.30	Benefit: 75% = \$37.00	85% = \$41.95

The proposed item descriptors for telehealth consultations are presented in Figure 6-10 as equivalent to current MBS items 114 (for short consultation by a physician) and 112 (for longer consultation by a physician) for Option 1. For Option 2, the descriptor for telehealth consultations is similar to MBS psychiatry telehealth item 288, but with Extended Medicare Safety Net capping calculated in the same way as physician-equivalent (Group A4) items.

Figure 6-10: Proposed descriptors for short and long telehealth items – physician-equivalent

PROFESSIONAL ATTENDANCE –TELEHEALTH (SHORT)		
<u>MBS Item 6025</u>		
Initial professional attendance of 10 minutes or less in duration on a patient by an addiction medicine specialist practising in his or her specialty if:		
(a) the attendance is by video conference; and		
(b) the patient is not an admitted patient; and		
(c) the patient:		
(i) is located both:		
(A) within a telehealth eligible area; and		
(B) at the time of the attendance-at least 15 kms by road from the addiction medicine specialist; or		
(ii) is a care recipient in a residential care service; or		
(iii) is a patient of:		
(A) an Aboriginal Medical Service; or		
(B) an Aboriginal Community Controlled Health Service;		
for which a direction made under subsection 19 (2) of the Act applies; and		
(d) no other initial consultation has taken place for a single course of treatment.		
Fee: \$113.20	Benefit: 85% = \$96.25	

TELEHEALTH (MORE THAN 10 MINS)

MBS Item 6026

Professional attendance on a patient by an addiction medicine specialist practising in his or her specialty if:

- (a) the attendance is by video conference; and
- (b) the attendance is for a service:
 - (i) provided with item 6018 lasting more than 10 minutes; or
 - (ii) provided with item 6019, 6020 or 6021; and
- (c) the patient is not an admitted patient; and
- (d) the patient:
 - (i) is located both:
 - (A) within a telehealth eligible area; and
 - (B) at the time of the attendance-at least 15 kms by road from the addiction medicine specialist; or
 - (ii) is a care recipient in a residential care service; or
 - (iii) is a patient of:
 - (A) an Aboriginal Medical Service; or
 - (B) an Aboriginal Community Controlled Health Service;for which a direction made under subsection 19 (2) of the Act applies

50% of the fee for the associated item. Benefit: 85% of derived fee

Figure 6-11: Proposed descriptors for telehealth items – time-tiered

PROFESSIONAL ATTENDANCE – TELEHEALTH

MBS Item 6026

Professional attendance on a patient by an addiction medicine specialist practising in his or her specialty if:

- (a) the attendance is by video conference; and
- (b) the attendance is for a service:
 - (i) provided with item 6018 lasting more than 10 minutes; or
 - (ii) provided with item 6019, 6020,6021, 6023 or 6021; and
- (c) the patient is not an admitted patient; and
- (d) the patient:
 - (i) is located both:
 - (A) within a telehealth eligible area; and
 - (B) at the time of the attendance-at least 15 kms by road from the addiction medicine specialist; or
 - (ii) is a care recipient in a residential care service; or
 - (iii) is a patient of:
 - (A) an Aboriginal Medical Service; or
 - (B) an Aboriginal Community Controlled Health Service;for which a direction made under subsection 19 (2) of the Act applies

50% of the fee for the associated item. Benefit: 85% of derived fee

The Department has already factored in the impact of teleconferencing items to estimates. As such, there was no formal modelling of the impact of these items upon future MBS billing for addiction medicine specialists.

7 Impact of Changes to Remuneration Arrangements

7.1 Modelling Objectives

The purpose of the financial modelling undertaken was to quantify the implications for the private sector of the proposed new MBS item structures for addiction medicine.

7.2 Private Sector

7.2.1 SCENARIO MODELLING

A number of scenarios have been modelled to assess the impact of revised MBS item structures. A detailed explanation of each scenario is provided at Chapter 6. The following sections provide a summary of the main outcomes for each scenario.

7.2.2 PHYSICIAN RATES

Strict equivalence

In this scenario it is assumed that there will be a 30% reduction in assessments and an equivalent increase in treatment items in accordance with the assumptions described in Chapter 6. All assessment and treatment consultations attract a benefit of \$137.12 (being the weighted average assessment benefit), and \$63.41 (being the weighted average treatment/review benefit). This compares with the current scenario weighted average rates of \$102.02 and \$50.77 respectively. Figure 7-1 and Figure 7-2 shows a comparison of this scenario with the current rates for charges, benefits and out-of-pocket amounts. There is no change in the overall volume of services delivered. Total benefits paid in 2013 under this scenario are estimated at \$10.013m, which compares with the estimate for the current scenario of \$8.173m, an increase of \$1.840m.

Figure 7-1: Strict Physician Rates – Average \$/service for Assessment

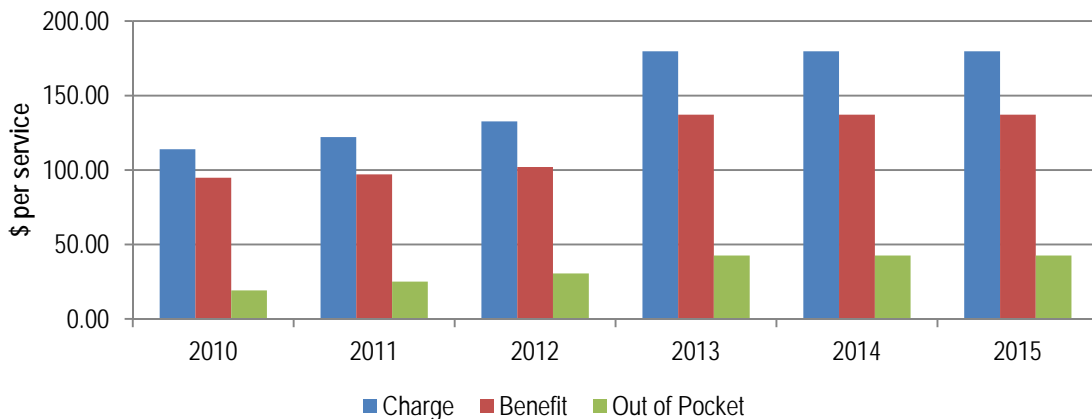
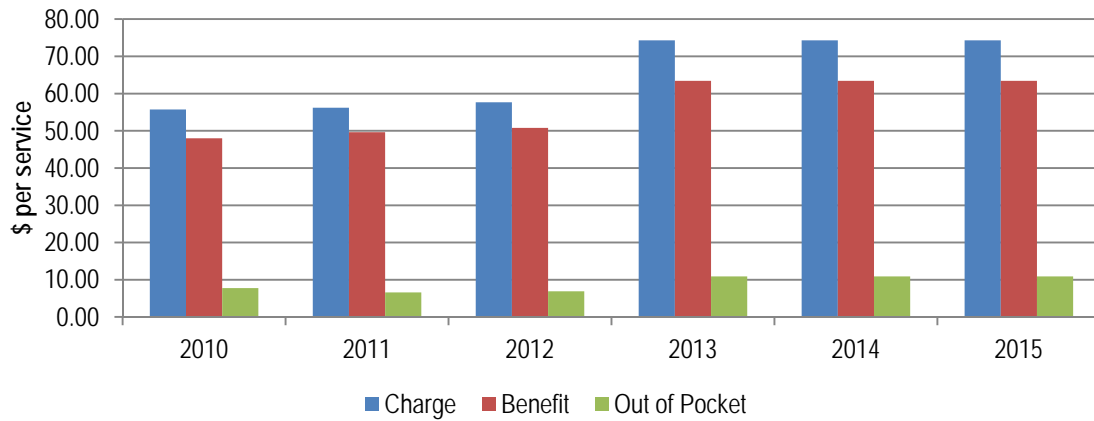


Figure 7-2: Strict Physician Rates – Average \$/service for Treatment



Physician Rates –Modified

In this scenario, the original forecasts for assessment and treatment services are maintained. All assessment and treatment consultations attract the same benefits as shown in the previous scenario. This compares with the current scenario weighted average benefits of \$102.02 and \$50.77 respectively. Figure 7-3 and Figure 7-4 shows a comparison of this scenario with the current weighted average charges, benefits and out-of-pocket amounts.

Figure 7-3: Physician Rates Modified – Average \$/service for Assessment

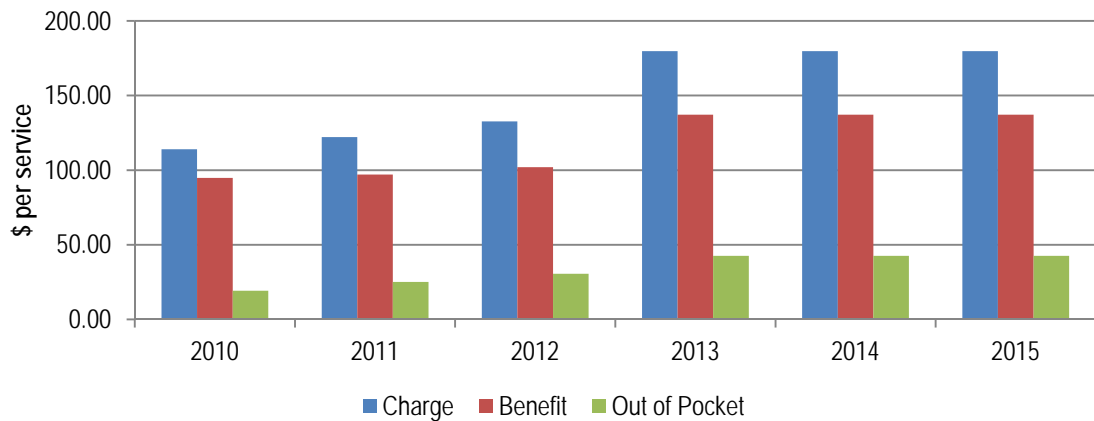
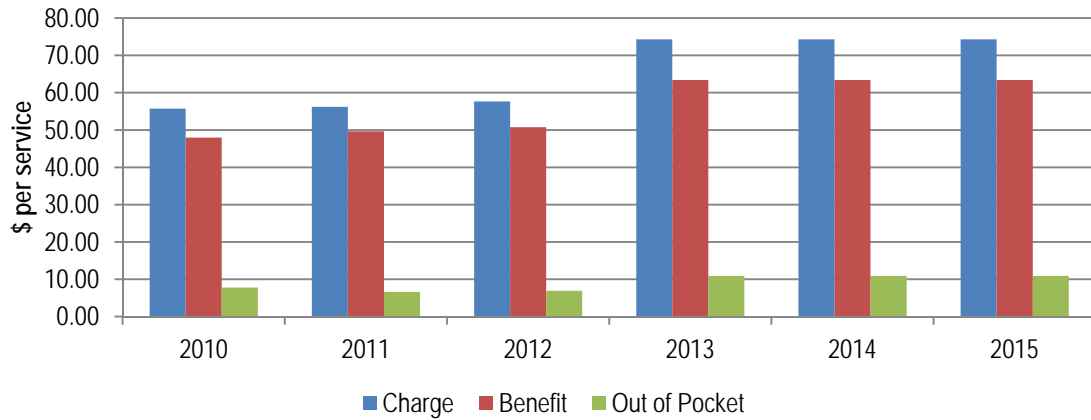


Figure 7-4: Physician Rates Modified – Average \$/service for Treatment



There is no change in the volume of services delivered under this scenario.

In this scenario, assessment benefits increase by 34% and treatment benefits rise by 25%. The total benefits paid under this scenario in 2013 are \$2.190m higher than the current scenario.

7.2.3 TIME-TIER RATES

Benefits for assessment services in this scenario are costed at \$137.12 per service (the weighted average physician benefit) compared with the current weighted average benefit of \$102.02, an increase of 34%. Treatment services have a time-tiered structure, which results in an average benefit of \$66.62 per service compared with the current average of \$50.77, an increase of 31%, which is slightly higher than the weighted average physician rates. Charges, benefits and out-of-pocket fees per service are shown in Figure 7-5 and Figure 7-6.

Figure 7-5: Time-Tier Rates – Average \$/service for Assessment

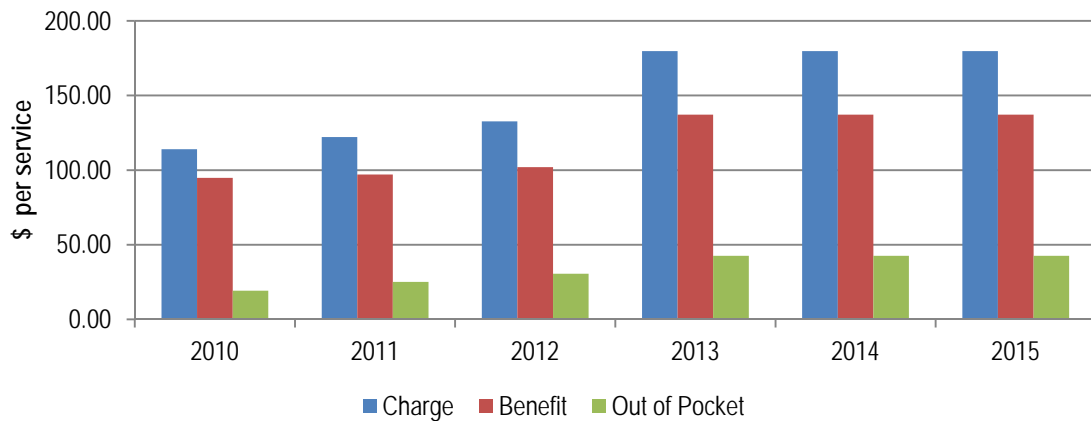
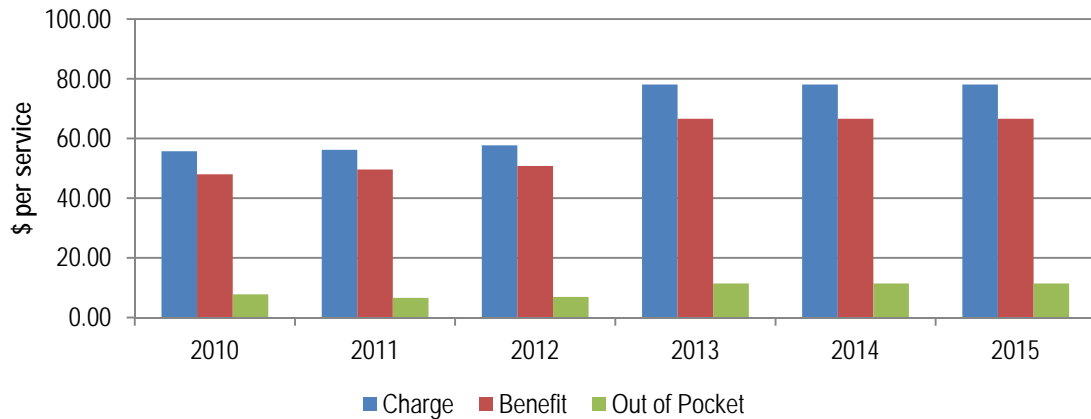


Figure 7-6: Time-Tier Rates – Average \$/service for Treatment



Once again, there is no change in the expected volume of services under the time-tiered scenario. Total benefits payable in 2013 are \$2.605m higher than the current scenario, and \$0.415m higher than the modified physician rate scenario.

7.2.4 COMPLEX TREATMENT AND MANAGEMENT PLANS

This scenario provides for complex treatment and management plans for addiction medicine specialists that sit parallel with the consultation items. In this scenario, there is an estimated increase in the number of services provided as a result of additional complex treatment and management plan services by 5% of the total consultations. The basis for the estimated increase is tied to the estimated total assessment consultations relative to total consultations. In 2013, services rise by 4,751 compared to the earlier scenarios.

The weighted average benefit for assessments in this scenario rises to \$145.05, an increase of 42% on current rates. The weighted average benefit for treatments increases by 27% to \$64.58. Unit prices for charges, benefits and out-of-pockets are shown in Figure 7-7 and Figure 7-8.

Figure 7-7: Complex Treatment– Average \$/service for Assessment

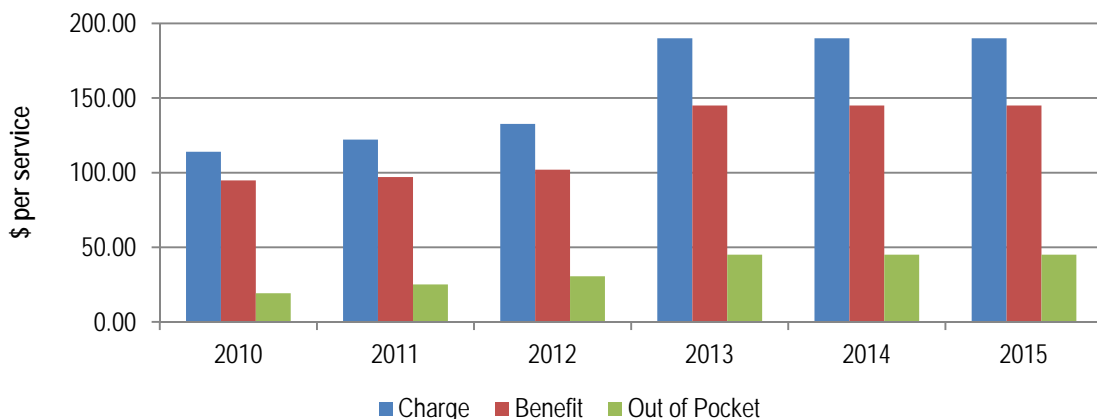
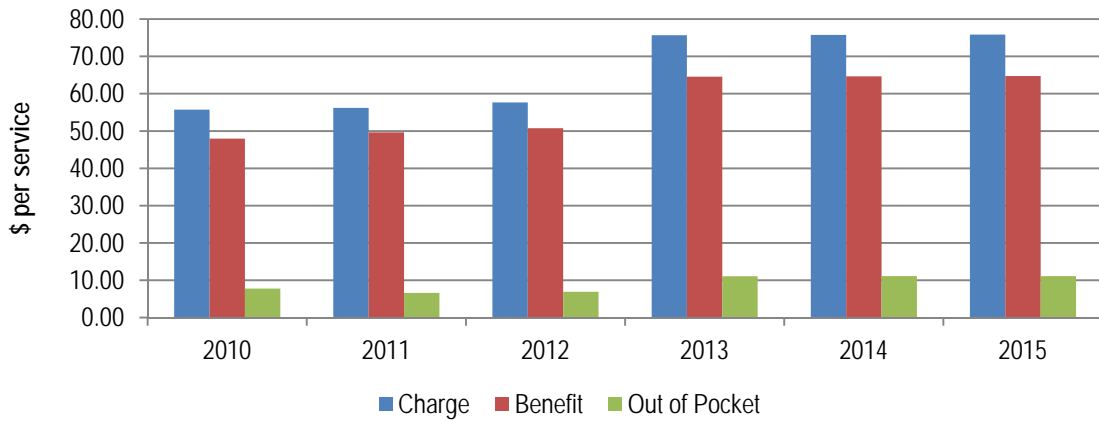


Figure 7-8: Complex Treatment– Average \$/service for Treatment



The impact of additional volume and higher weighted average rates under this scenario increase total benefits by ~\$0.710m per annum compared with the physician rates (modified) scenario and by \$2.901m compared to the current scenario.

7.2.5 CASE CONFERENCING

In this scenario, items for case conferencing are added (Figure 7-9, Figure 7-10). It is estimated that the volumes increase by a further 13,325 services in 2013 due to additional services for case conference co-ordination and participation. The total volume increase over the current scenario is now 17,986 services or 12.4%.

Figure 7-9: Case Conferencing – Average \$/service for Assessment

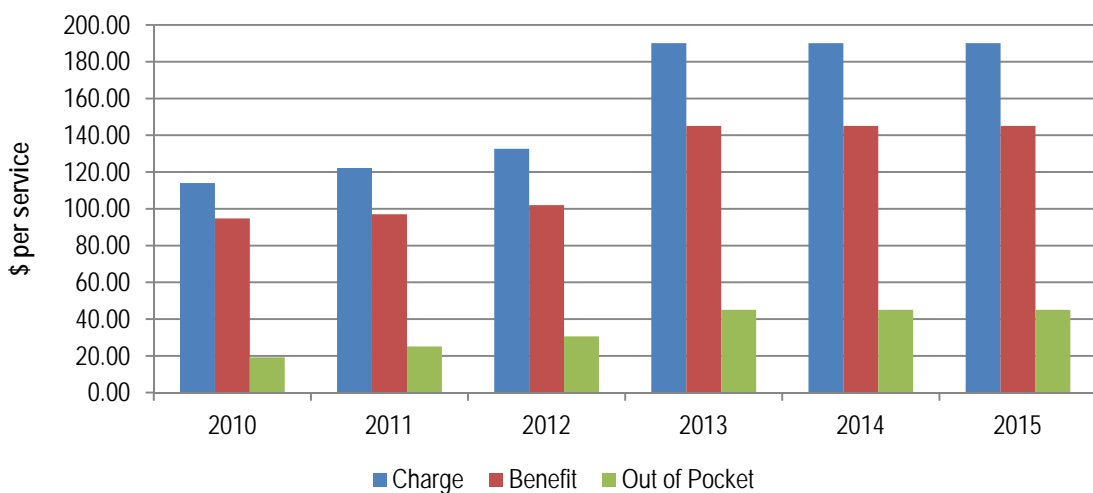
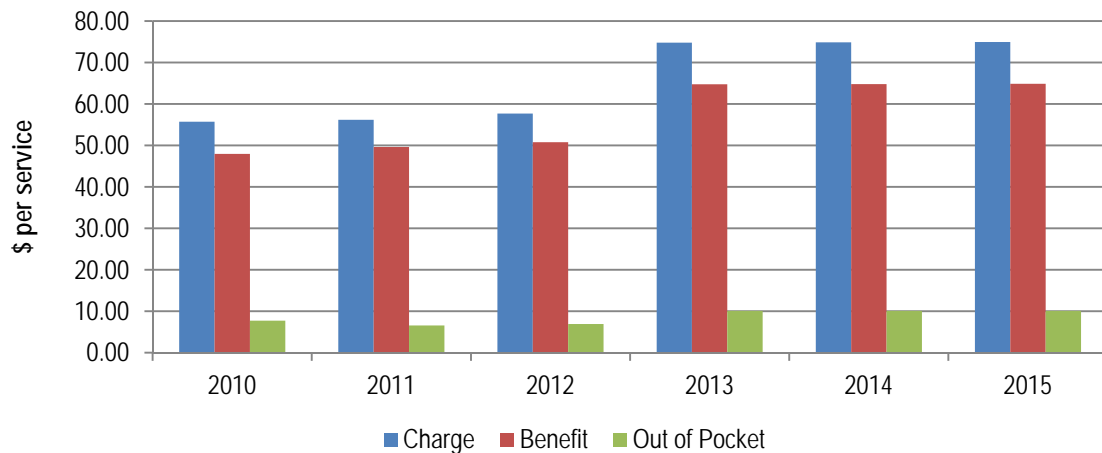


Figure 7-10: Case Conferencing – Average \$/service for Treatment



There is no change in the weighted average benefits for assessments and no change in the weighted average benefits for treatments compared to the previous scenario. Total benefits under this scenario in 2013 are \$3.779m higher than the current scenario.

7.2.6 WORKFORCE CHANGES

The financial model has also been used to test the implications of two other factors on MBS activity and financial outcomes:

- The impact of workforce changes (i.e. new trainees commencing less retirees); and
- The impact of increased private MBS billing due to the new item structure.

Table 7-1 summarises the assumptions that have been applied to estimate the impact of these changes.

Table 7-1: Estimated workforce and billing changes – Addiction Medicine

WORKFORCE - ADDICTION MED	2013	2014	2015
Current	142	142	140
Retirees		-5	-10
New members ex trainees		3	5
Adjusted Total	142	140	135
Full-time private	9	9	9
Part-time/Public	133	131	126
Estimated % to increase	33%	33%	33%
Number of Specialists increasing	43.89	43.23	41.58
Extra sessions per week		1	2
Patients per session		3.5	3.5
Weeks per annum		45	45
Extra O o S		6,809	13,098
% of year total		4.9%	9.7%

The workforce is estimated to **decline** from its current number of 142 specialists in 2013 to around 135 by 2015; a reduction of 1.4%. The estimates for retirees have been based on the current age profile of addiction medicine specialists and an assumption that retirement will occur at age 65. The estimates for new members have been derived from trainee data provided by the Chapter for Addiction Medicine (as previously outlined in Chapter 4).

In relation to the second issue, the estimated increase in MBS billing activity due to the proposed increase in benefits and the use of new item numbers is 4.9% in 2014 (6,809) and by 9.7% in 2015 (13,098) based on the following assumptions:

- That there are currently 9 full-time specialists in private practice (based on MBS sample data received);
- That 33% of the remaining part-time specialists will increase their MBS billing by one session per week in 2014 and by two sessions (i.e. one further session) per week in 2015; and
- An average of 3.5 patients per session over 45 working weeks per annum.

Under this scenario there is no change to the weighted average benefits per service. However, there is a change in the volume of services delivered.

Figure 7-11 shows the number of current services per provider from the MBS data sample provided by Medicare Australia. There are very few specialists working full-time, with only 4 providers from the sample of 44 providers with more than 5,000 services per annum.

Figure 7-11: Number of services by provider in 2012

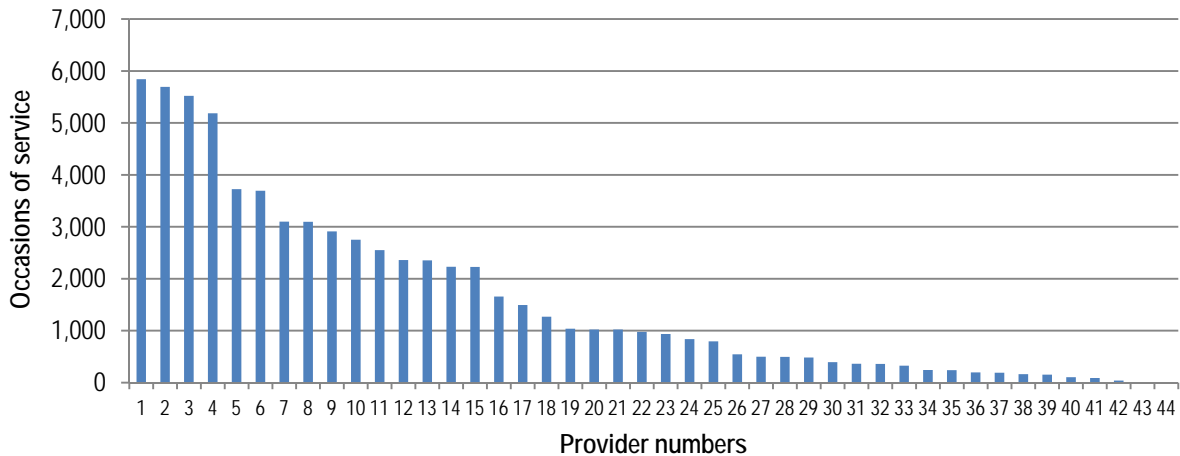
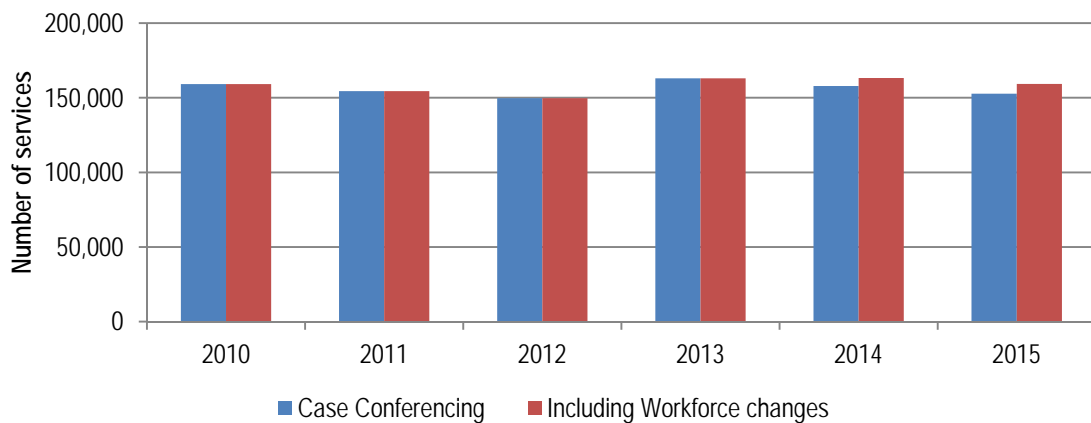


Figure 7-12 shows the net impact on volume of services from the previous scenario after taking into account the declining workforce and the expected increase in sessions from the part-time workforce and the shift from the public to private sector.

Figure 7-12: Occasions of Service – Workforce & billing changes included



There is a net increase of 5,330 services in 2014 (3.4%) and 6,499 services by 2015 (4.3%).

7.2.7 FINANCIAL PROJECTIONS

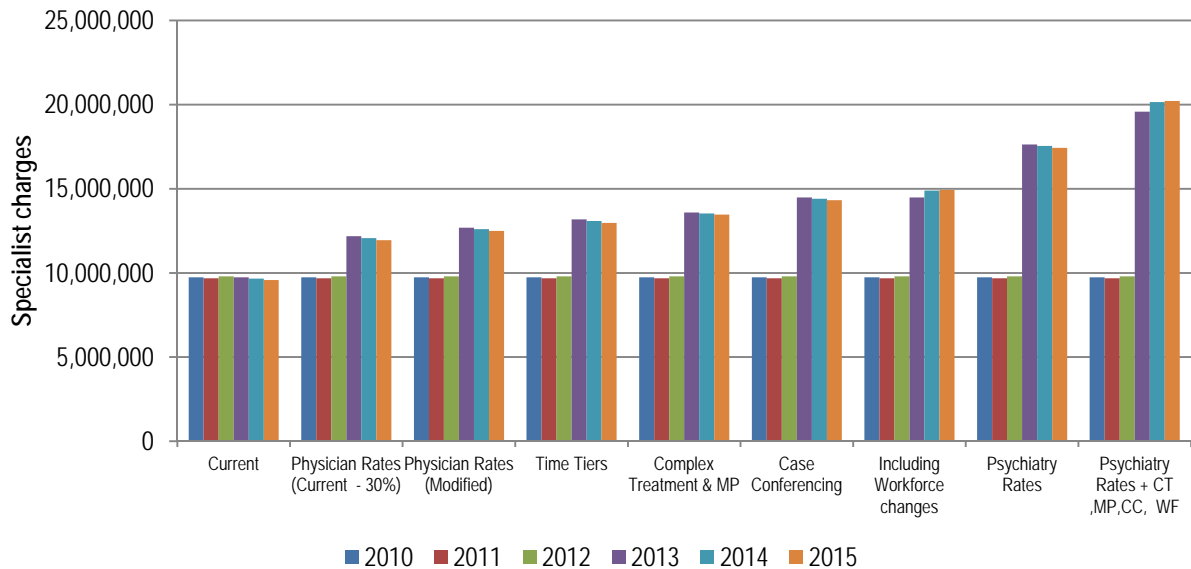
All financial projections shown below have now been indexed at the following rates, which are based on the linear trend increases for a group of relevant MBS items:

- 2013 by 1.98%
- 2014 by a further 1.88%
- 2015 by a further 1.85%

Figure 7-13 shows the estimated total amounts for specialist **charges** under the various scenarios. Scenarios including complex treatment, case conferencing and workforce changes are based upon the additional cost of these item numbers on top of the modified physician-equivalent rates (not time tiered rates). Under the **current** scenario, total charges are expected to decline from \$9.80m in 2012 to \$9.580m in 2015 due to the estimated decline in active addiction medicine specialists in the workforce.

The cumulative impact of physician rates, complex treatment and management plans, case conferencing and workforce/billing changes results in total charges of \$14.935m in 2015. This is an increase of \$5.35m over the current scenario by 2015. The comparator group (psychiatrists) charges are also shown in Figure 7-13.

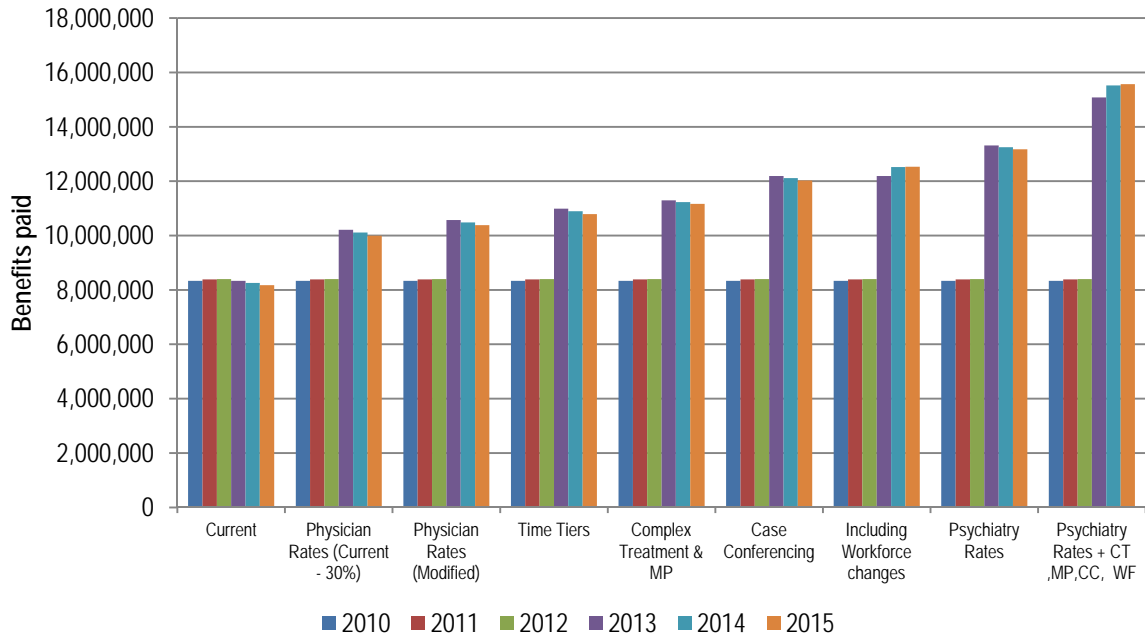
Figure 7-13: Summary of options – Charges



The weighted average charge in 2015 including workforce/billing changes is estimated at \$93.78 compared with the current scenario at \$70.66, an increase of 33%.

The weighted average **benefits paid** under the various scenarios are displayed in Figure 7-14. Under the current scenario total benefits paid in 2012 are estimated at \$8.40m, which falls to \$8.176m by 2015. The cumulative total benefit amount with workforce/billing changes in 2015 is \$12.535m, an increase of \$4.36m over the current projection for 2015.

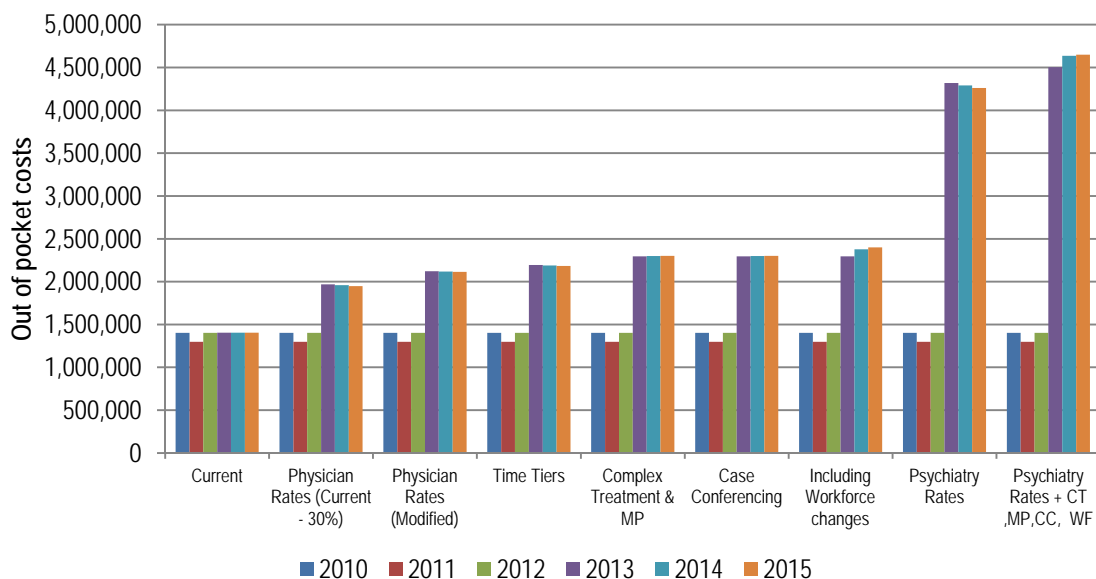
Figure 7-14: Summary of options – Benefits paid



The average benefit paid in 2015 with the cumulative effect including workforce/billing changes is \$78.71 compared with the current scenario at \$60.31, an increase of 31%.

Out-of-pocket amounts under the current scenario are estimated at \$1.403m in 2012 and this rises slightly to \$1.404m by 2015. The cumulative impact of all scenarios would result in an out-of-pocket amount of \$2.40m by 2015, an increase of \$1.00m or 71%. Details are shown in Figure 7-15.

Figure 7-15: Summary of options – Out-of-pockets



The average out-of-pocket fee under the cumulative workforce/billing scenario in 2015 is \$15.07 compared with \$10.36 under the current scenario for that year.

7.3 Public Sector

Current costs of public sector services could not be reliably estimated. More than half of the current addiction medicine specialists work in the public sector. However, the costs associated with individual patient treatments cannot be separated from the costs of other clinicians assessing and treating patients.

The multi-disciplinary models of care that universally operate in the public sector are often very different in the level of involvement of the addiction medicine specialist in the care of patients.

7.4 Impact upon supply of specialists

Anecdotal reports from representatives of the Chapter of Addiction Medicine indicate that the availability of MBS items for addiction medicine would have a positive impact upon the supply of specialists. There are several self-reinforcing reasons for this advice, including but not limited to:

- Current benefit levels are unable to support a viable private practice. Hence, the fee structure is actively working against attracting specialists into private practice; and
- The current remuneration levels for addiction medicine are a disincentive in attracting candidates compared with other specialty areas. There is strong evidence of the difficulty in filling accredited addiction medicine registrar positions, and the transfer out of addiction medicine registrar positions part way through training.

7.5 Impact upon access to services

It is estimated that there would be an increase in the supply of addiction medicine specialists over time as a direct result of a new – more appropriately remunerated – MBS item structure.

The rate of increase in qualified specialists is a function of the number of accredited trainee positions and the interest in specialisation in addiction medicine. It is anticipated that there will not be a major or sudden turnaround in the current paucity of interest, and that the ‘take up’ rates will be gradual.

As there will be strong jurisdictional interest in developing addiction medicine specialists, there is likely to be concerted efforts, particularly in the take up of training positions in WA, NT and Qld where the current workforce is limited. A new regime of MBS items is reported to give impetus to developing flexible public-private training models.

7.6 Impact upon patient outcomes

The AMC and the medical profession more broadly, recognise that addiction medicine is a complex area, requiring a dedicated specialty able to deliver a range of high quality interventions to patients. Patient outcomes can therefore expect to improve through:

1. Advice and support to general practitioners;
2. Improving integration and coordination of care through the 'collaborative or shared care' service models;
3. Direct management of more complex cases – as is the case with any specialty area.
4. Enabling equivalent scope of practice to that currently available within the public sector – currently a significant limitation to specialists who are not already fellows of other medical colleges. Given the efficacy of these interventions and the accredited training to provide a wide range of services, it is assumed that patient outcomes will therefore be no worse than those achieved in the public sector.
5. Workforce development that may also increase the availability of input by addiction medicine specialists into public policy and program development to increase awareness of substance use disorders. This would ideally result in a higher proportion of individuals recognising the need to address harmful behaviour.
6. Improving access to timely care by:
 - a. Reducing preventable delays in treatment associated with waiting lists of a number of different providers; and
 - b. Reducing out-of-pocket costs (on average) to the patient.

Notwithstanding the proposition that patient outcomes are expected to improve, there is no basis for quantifying the level of expected patient outcome improvement by any of the standard quantification methods – at individual patient level or system level - through the provision of medical consultation services.

7.7 Impact upon private sector providers

There is no anticipated change to the requirements for referral to addiction medicine specialist as is the case with all other specialties, for advice and management of more complex co-morbidities. Therefore, there is no expected change to the current patient presentation arrangements for GPs or private practice specialist providers.

Based on the expected unmet demand in the community, there is unlikely to be any adverse impact on the demand for GP or other specialist services.

7.8 Impact upon public sector services

There is expected to be minimal impact on the demand for, or provision of, public sector services in addiction medicine.

The most likely impact based on anecdotal advice is that alternative treatment opportunities may exist for patients who would prefer to attend a private clinic rather than a public clinic for their addiction/substance abuse conditions.

It is possible that the time available for current addiction medicine specialists in public sector may be marginally diminished if there is an increase in accredited training of registrars.

7.9 Impact upon overall health expenditure (relative cost effectiveness)

Cost effectiveness analysis is used as a means to determine the relative cost of undertaking a course of action compared with the most appropriate existing course of action.

In the context of addiction medicine cost effectiveness analysis is between two independent³² 'interventions', i.e. between medical consultations by an addiction medicine specialist or a psychiatrist, as the psychiatrist is the next most clinically appropriate clinical treatment course for most addiction or substance abuse disorders.

Analysis between independent interventions would ordinarily suggest comparative analysis between the cost of interventions compared with the health gain of the intervention (usually expressed as a ratio). This is where conventional cost effectiveness analysis becomes problematic. Whilst it is possible to estimate the cost difference between consultations delivered by an addiction medicine specialist *vis a vis* a psychiatrist, it is not possible to identify the relative or absolute health gain resulting from one or a series of medical consultations.

Section 4.2 above indicates "the field of addiction medicine has developed to the extent that an effective specialist-level practitioner cannot be trained within a psychiatric framework alone, a position that is supported by the Royal Australian and New Zealand College of Psychiatry." This indicates that there has been acceptance within the medical profession that there are superior clinical benefits from addiction medicine interventions for substance abuse and addiction disorders relative to psychiatry interventions. On this basis, a cost effectiveness analysis should only need to demonstrate costs at or below the alternative psychiatry consultation option to demonstrate overall superior cost effectiveness.

Therefore, an economic evaluation of the addiction medicine MBS items has been based on a *relative cost of alternative medical consultations*. A modelled comparative analysis of *future* costs to 2015 by addiction medicine specialists and psychiatrists has been developed. The forecast costs for addiction medicine are based on the proposed fee structure where assessment and patient review are at physician rates.

7.9.1 MODELLED COMPARATIVE ANALYSIS

The current (2012) MBS outlays for addiction medicine are estimated to be ~\$8.398m. However, due to forecast workforce reductions, it is estimated that this would decrease to \$8.176m by 2015.

³² This means that the actions are independent but not mutually exclusive.

The forecast (2015) MBS outlays for addiction medicine, is ~\$12.535m noting that there are rate increases to consultant physician levels, changes to complex care, case conferencing and a modest fall in claims due to expected workforce reductions. This suggests that there would be an *increase* in MBS outlays of ~\$4.137m based on the difference between actual 2012 and forecast 2015, **or** ~\$4.359m based on the forecast outlays in 2015 with no change to MBS structure and reduced workforce, and forecast outlays under a new item structure.

The forecast MBS outlays using psychiatry consultation rates is ~\$15.573m. This indicates that there is a \$3.038m cost advantage, or 19.5% for addiction medicine over psychiatry. This suggests that even with an increase in payment rates for addiction medicine specialists, a marked cost advantage is maintained, albeit at a much lower level.

The assumed mix of consultations between addiction medicine and psychiatry are the same; namely:

- Assessment (11.85%);
- Patient review (80.14%); and
- Complex care planning & Case Conferencing (8.01%).

Sensitivity analysis of the assumed mix of items claimed indicates that:

- An increase of 10% in assessments and a commensurate decrease in patient reviews will impact on the costs by \$102k in 2015 or 0.9%.
- An increase of 10% in complex care and case conferences and a commensurate decrease in patient reviews would be almost cost neutral.

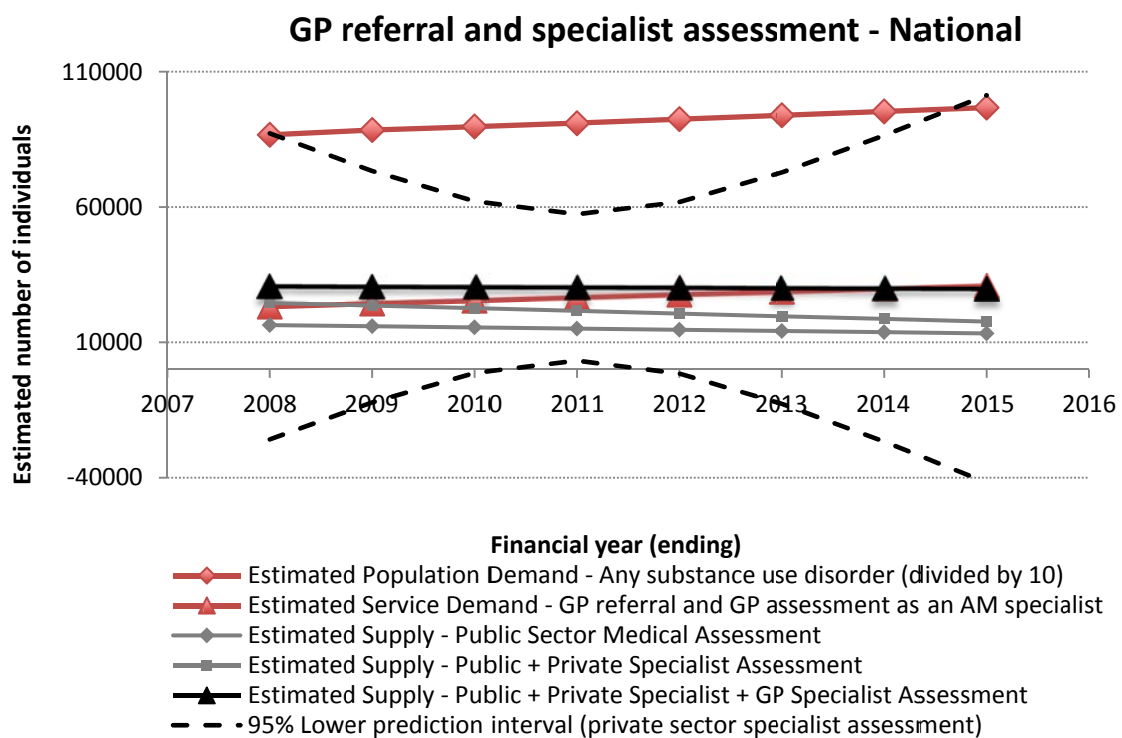
Another important aspect of the cost effectiveness analysis is the forecast for out-of-pocket costs for patients. The analysis assumes the same out-of-pocket cost differential between current addiction medicine and psychiatry out-of-pockets. Due to the relatively low level of current benefits for addiction medicine, the out-of-pocket costs might ordinarily be pushed higher. This was not the case. Out-of-pocket costs for (private) addiction medicine patients are markedly lower than for psychiatry. Anecdotally, this is attributed to the nature of the clientele and social circumstances.

The estimated out-of-pocket costs to patients (2015), suggests ~\$2.400m for addiction medicine, compared to out-of-pocket costs for psychiatry of \$4.650m. This is a difference of ~\$2.250m, or 94% higher for psychiatry than for addiction medicine.

Appendix 1 Longitudinal estimates of demand and supply

Data estimations were calculated according to the following methods:

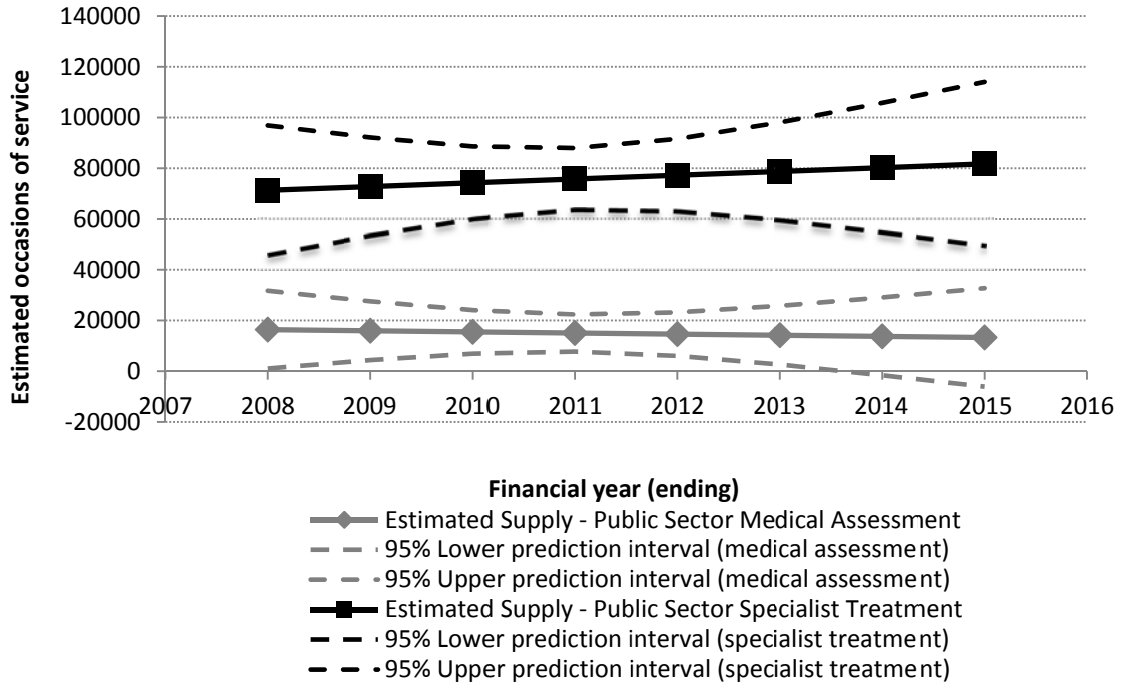
- Calculation of the population of individuals who were 16 years or older at a national level³³;
- Identifying the rate (per 1000 population) of:
 - ▶ General Practice referrals (using BEACH study estimates);
 - ▶ GP assessments as addiction medicine specialists (using estimates derived from MBS billing data);
 - ▶ Specialist assessments (using MBS billing data); and
 - ▶ Medical assessments (estimated from jurisdictional data supplied from Western Australia);
- Fitting each of the observations to a linear prediction equation³⁴; and
- Calculating the prediction intervals associated with current and future demand.



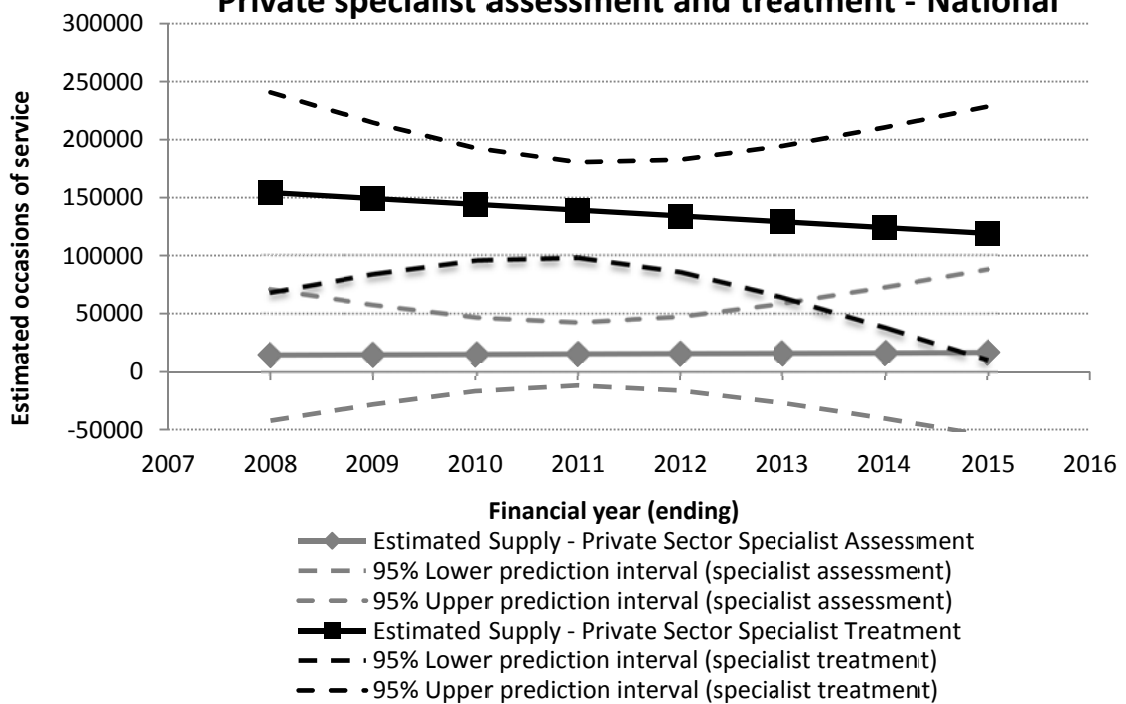
33. To maintain comparability with the survey methodology (which included individuals greater than or equal to 16 years)

34. This approach was preferred given the limited data points available for estimation. Linear prediction was considered to be more conservative (and reduce the risks of over fitting the available data. Calculation of prediction intervals was considered to provide a more transparent picture of the degree of variability associated with future estimations. The data series was not projected beyond the number of observations available for analysis.

Public specialist assessment and treatment - National



Private specialist assessment and treatment - National



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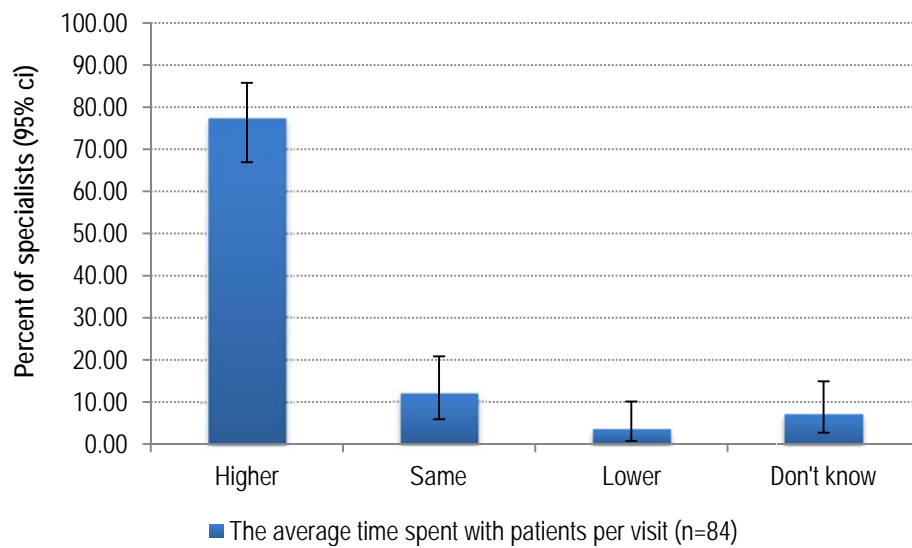
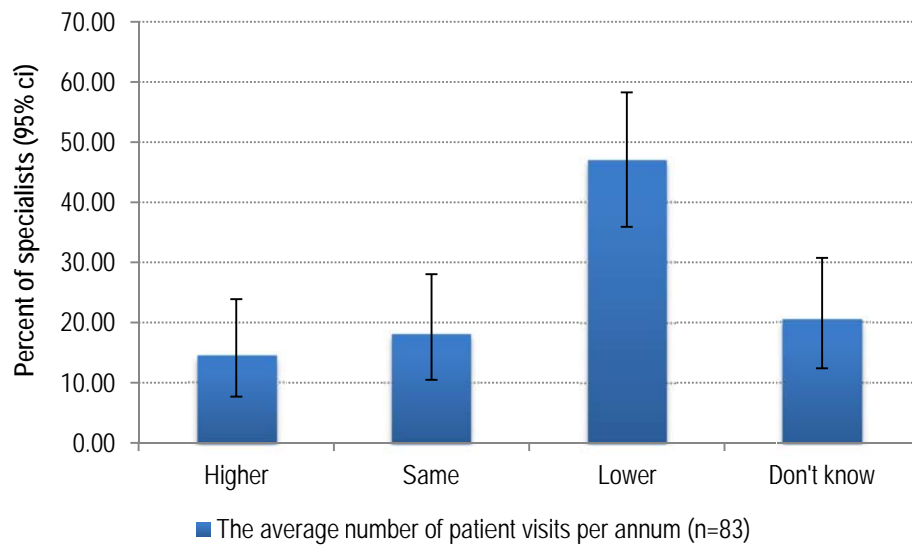
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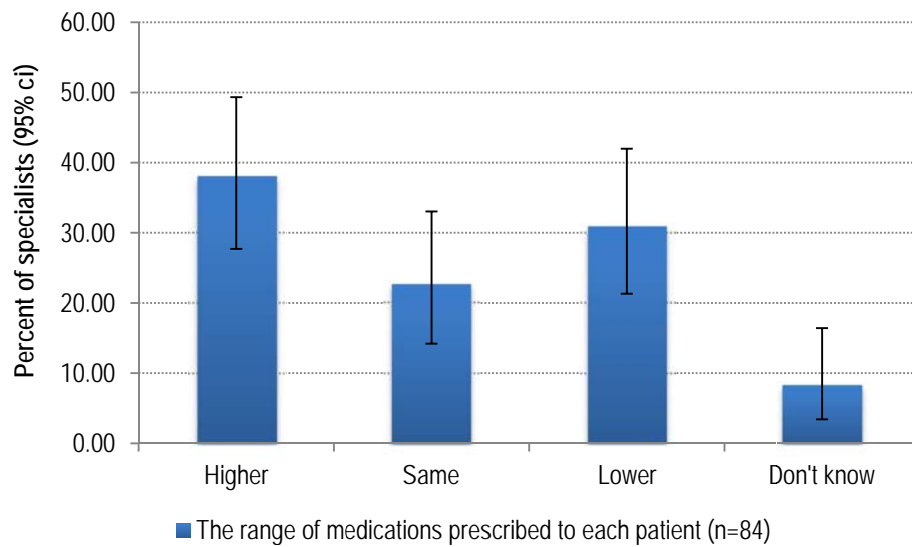
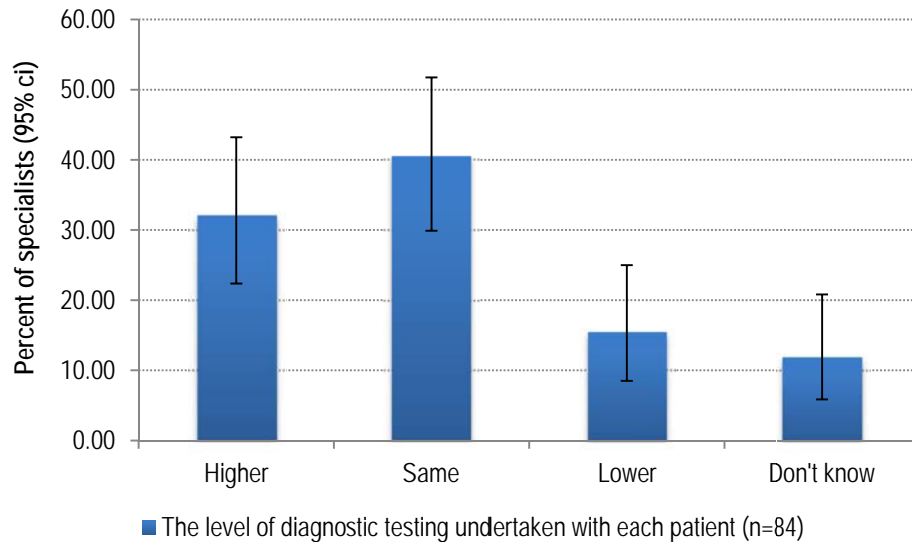
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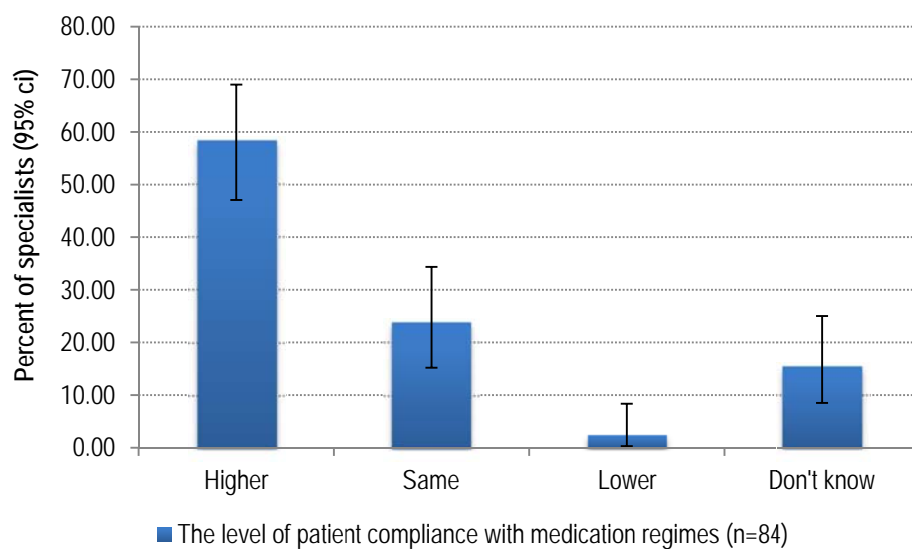
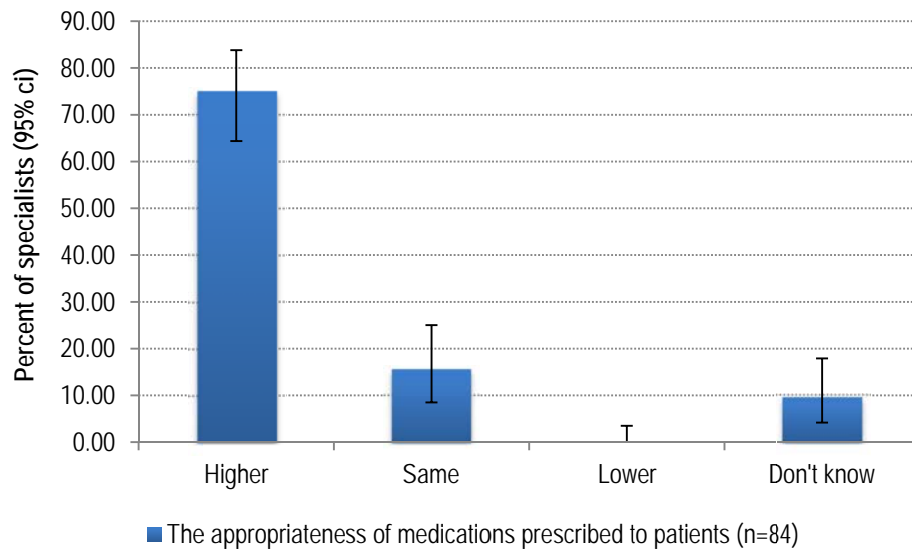
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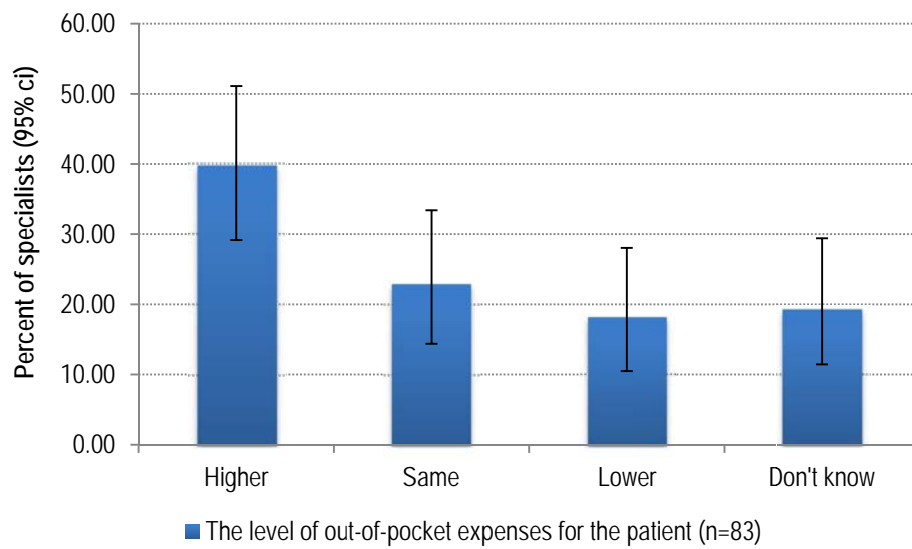
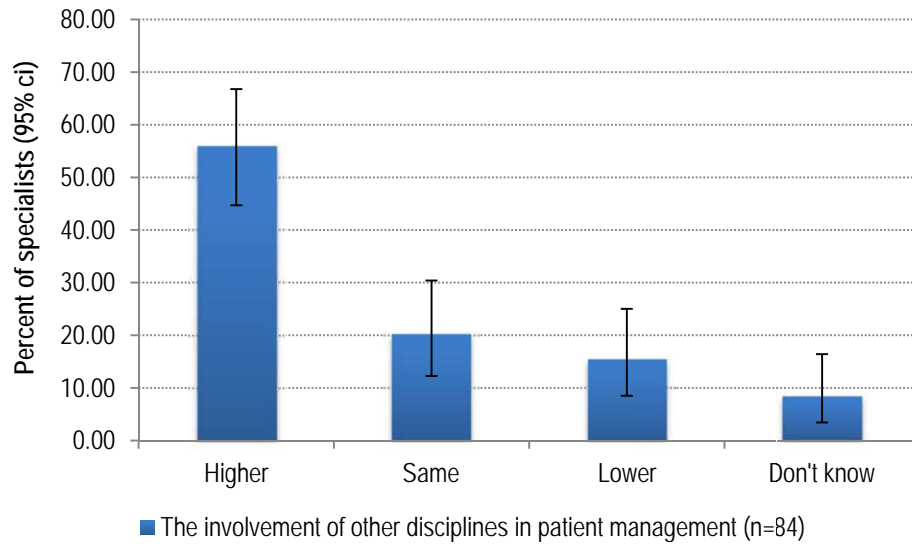
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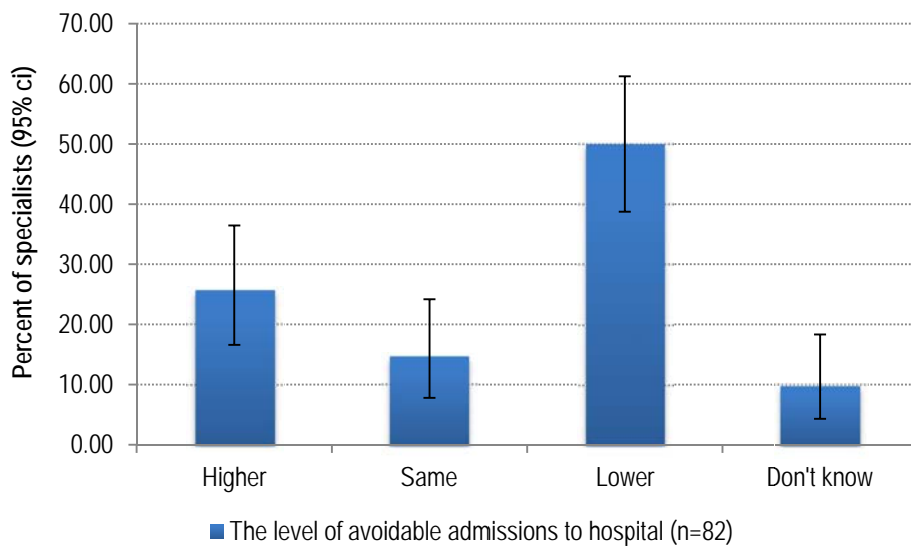
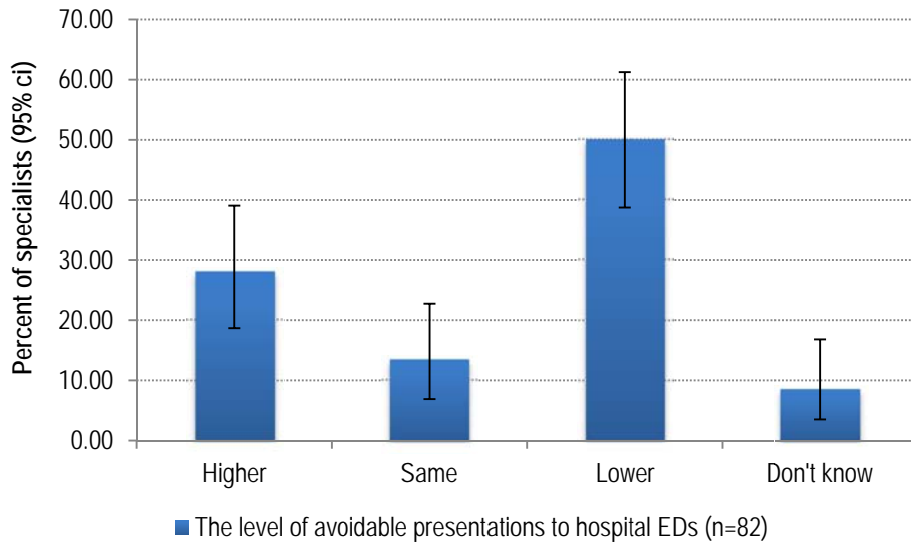
Appendix 3 Perceived impact of specialist interventions











Appendix 4 Training competencies of medical specialties

THEME	FACHAM	RACGP	RANZCP
Clinical Assessment			
Take a medical history	✓	✓	✓
Elicit the reasons the patient is presenting for treatment	✓	✓	✓
Take a psychosocial history	✓	-	✓
Take a psychiatric history	✓	✓	✓
Perform a mental state examination	✓	✓	✓
Perform a risk assessment	✓	✓	✓
Perform a focused physical examination	✓	✓	✓
Undertake clinical investigations	✓	-	✓
Provide personalised feedback on diagnoses, drug related harm and harm minimisation strategies	✓	✓	✓
Provide information on treatment options and formulate a management plan	✓	✓	✓
Attitude, Ethical Issues & Professional Development			
Adopt an appropriate attitude towards patients, families and other professionals	✓	✓	✓
Recognise the ethics and obligations of service provision	✓	✓	✓
Recognise what comprises professional competence	✓	✓	✓
Recognise and practice the principles of informed consent	✓	✓	✓
Maintain principles of privacy in relation to the keeping of personal information	✓	✓	✓
Recognise respective powers and vulnerabilities of practitioners and patients	✓	✓	✓
Maintain professional standards	✓	✓	✓
Recognise cross-cultural issues in health care	✓	✓	✓
Administration & Team Work			
Work within, lead or manage a multidisciplinary team	✓	✓	✓
Participate in health service development and management	✓	✗	✓
Recognise and work within the social, historical, ethical and political contexts relevant to the delivery of health services for clients with substance use disorders, as well as those relevant to substance use in society	✓	✓	✓
Consultation & Liaison			
Provide a clinical consultation and advisory service to assist other health care workers with their management of patients with drug and alcohol problems	✓	✗	✓

THEME	FACHAM	RACGP	RANZCP
Undertake joint management (shared care) of patients with drug and alcohol problems, particularly with primary care and mental health services	✓	✗	✓
Develop, implement and evaluate clinical guidelines and pathways, treatment protocols, policies and procedures relevant to drug and alcohol medicine	✓	✗	✓
Develop, provide and evaluate drug and alcohol education programs for medical colleagues and other health care workers	✓	✗	✓
Medico-Legal			
Comply with legislation concerning prescription and supply of drugs of dependence	✓	✓	✓
Comply with legislation relating to the supply and prescription of opioid replacement treatment and understand the process leading to the authorisation to prescribe these Medications	✓	✓	✓
Outline requirements of the Medical Practitioners Registration Act applicable to local jurisdiction	✓	✓	✓
Have an appreciation of what behaviour by a practitioner might constitute unprofessional conduct	✓	✓	✓
Understand the range of presentations of the impaired practitioner	✓	✓	✓
Apply clinical and interpretive procedures required to monitor biological markers, including drug screening	✓	✗	✓
Apply diagnostic procedures required to correctly interpret blood/breath alcohol levels when required to act as an expert witness on alcohol and drug issues	✓	✗	✓
Outline the range of issues surrounding alcohol and/or drug use in the workplace as they relate to workplace occupational health and safety legislation	✓	✗	✓
Describe the role and application processes related to involuntary treatment encompassed in the various mental health acts in each jurisdiction	✓	✗	✓
Work within court diversion programs	✓	✗	✓
Self-Education			
Demonstrate enthusiasm for self-directed, lifelong learning, to ensure engagement in continuing education or continuing professional development	✓	-	✓
Patient Management			
Diagnose and manage acute withdrawal and intoxication states	✓	✓	✓
Determine risks to self and others from intoxication, withdrawal and dependence, and respond appropriately	✓	-	✓
Obtain informed consent to treatment and develop a treatment plan based on an assessment of motivation	✓	✓	✓
Identify and coordinate management of comorbid medical conditions	✓	✓	✓
Identify and coordinate management of comorbid psychiatric conditions	✓	✓	✓
Facilitate ongoing participation of the patient, family and significant others in the rehabilitation program	✓	✓	✓
Use assessments and therapies of the interdisciplinary teams	✓	✓	✓
Manage dependence relapse prevention, monitoring and review	✓	✓	✓

THEME	FACHAM	RACGP	RANZCP
Public Health & Prevention			
Discuss the public health impact of tobacco, alcohol and other drug dependence, and other public health areas related to substance use	✓	✓	✓
Promote the use of evidence-based prevention strategies and screening and brief interventions in healthcare settings	✓	✗	✓
Appraise research literature relating to addiction medicine	✓	✗	✓
Research			
Critically appraise research publications and assess applicability of findings to clinical practice;	✓	✗	✓
Design, perform and report on quality assurance studies;	✓	✗	✓
Present or publish a piece of original work, critical literature review or research project	✓	✗	✓

Appendix 5 Modelling methodology and assumptions

Billing data for three financial years (2009/10, 2010/11 and 2011/12) was obtained at “item number” level showing:

- Date of service;
- Provider number;
- MBS item number;
- Bulk bill indicator;
- State;
- Remoteness Area code;
- Number of services;
- Charge;
- Schedule fee;
- Benefit paid; and
- Out-of-pocket amount.

The data was further categorised to assist analysis according to the following areas³⁵:

- Practice type (general practice, specialist, etc.);
- MBS item category and description (1 to 8);
- MBS item group (A1 to T10);
- MBS item sub-group (0 to 15); and
- Whether an MBS item was more likely to be for “assessment” or “treatment”;

In addition to the above information, similar data was obtained from 2,271 consultant psychiatrist provider numbers as the comparator group for addiction medicine.

Modelled estimations of current and future MBS expenditure were calculated according to the following methods:

- The number of services for items relating to ‘assessment’ and ‘treatment’ were identified from the data sample;
- Estimates were rounded up (dividing by the response rate: 0.486) to estimate a total proportion of services across all working addiction medicine Specialists;
- The estimated number of services for each of the three years was fitted to a linear prediction equation³⁶;
- Prediction intervals were calculated for the fitted equation to provide an upper and lower estimate of error (associated with the observed fit); and
- Fitted estimates were then used for estimating current and future MBS services.

35. Detailed classification is presented in Appendix 7.

36. This approach was preferred given the limited data points available for estimation. Linear prediction was considered to be more conservative (and reduce the risks of over fitting the available data. Calculation of prediction intervals was considered to provide a more transparent picture of the degree of variability associated with future estimations. The data series was not projected beyond the number of observations available for analysis.

Assumptions underlying different modelling scenarios are presented in Chapter 6, but may be summarised according to the following:

1. Basic scenario:

- a. Costs of all observed MBS items classified as 'assessment' and 'treatment' were summed;
- b. Items relating to complex assessment or management planning were included as components of assessment; and
- c. Items relating to multidisciplinary case conferencing and group/family therapy were included as components of treatment.

2. Physician-equivalent scenario minus 30% (strict interpretation of current items):

- a. Costs of all observed assessment items were transferred/substituted to rate of the current physician-equivalent MBS item 110 (initial attendance):
 - i. 30% of these items were converted to 'treatment' episodes in accordance with feedback from the Fellowship that up to 30% of patients would otherwise be ineligible for an initial attendance according to the current item 110 (and a subsequent attendance at item rates of 116 as an initial attendance had not been previously charged); and
 - ii. Items relating to complex assessment or management planning were included as components of assessment.
- b. Costs of all observed treatment items (including 30% of patient assessment items) were transferred/substituted to a rate of the current physician-equivalent MBS item 116 (subsequent attendance):
 - i. Items relating to multidisciplinary case conferencing and group/family therapy were included as components of treatment.

3. Physician-equivalent rates – modified:

- a. Costs of all observed assessment items were transferred/substituted to rate of the current physician-equivalent MBS item 110 (initial attendance):
 - i. All assessment episodes were retained, assuming a modification to the current specifications for MBS item 110 allowing for the billing of an equivalent item rate for a 'comprehensive assessment' (occurring at any point in the patient episode of care) rather than at the point of 'initial attendance'; and
 - ii. Items relating to complex assessment or management planning were included as components of comprehensive assessment.
- b. Costs of all observed treatment items were transferred/substituted to a rate of the current physician-equivalent MBS item 116, assuming a modification of this item to allow for a 'patient review' (occurring at any point in the patient episode of care, including as a first contact) rather than as a designated 'subsequent attendance':
 - i. Items relating to multidisciplinary case conferencing and group/family therapy were included as components of treatment.

4. Time-tiered (anchored at physician-equivalent rate):

A new time-tiered structure was identified to accommodate attendances of:

- a. Up to 15 minutes duration (anchored at the GP-equivalent rate of an MBS item 23);

- b. More than 15 but less than 30 minutes duration (anchored at the physician-equivalent item rate of 116 for a subsequent attendance);
- c. More than 30 but less than 45 minutes duration (estimated at a costing midpoint between tier 2 and tier 4); and
- d. More than 45 minutes duration (anchored at the physician-equivalent item rate of 110 for an initial attendance):
 - i. Based upon current item volumes for assessment and treatment related MBS items it was assumed that 11% of all items would be billed at the highest time tier (for patient assessments); and
 - ii. The remaining items were estimated at the following rates of billing (to maximise efficiency and revenue arising from clinical practice arrangements):
 - ▶ 13.35% (15% of assessment residual) for short/standard consultations (tier 1);
 - ▶ 62.30% (70% of assessment residual) for physician follow-up consultations (tier 2); and
 - ▶ 13.35% (15% of assessment residual) for prolonged follow-up consultations (tier 3); and
 - iii. Sensitivity analysis was conducted on the impact of changes in billing volumes within the first three tiers, to identify variations at:
 - ▶ 10-20% of the assessment residual billed at tier 1;
 - ▶ 60-80% of the assessment residual billed at tier 2; and
 - ▶ 10-20% of the assessment residual billed at tier 3.

5. Complex treatment and management planning:

- a. Costs for 5% of all observed assessment (tier 4) items were transferred to rate of complex assessment and treatment planning at the physician-equivalent MBS item rate of 132 (initial attendance);
- b. The number of services corresponding to 10% of assessments was also converted to a physician-equivalent rate for follow-up of complex assessment and treatment planning (tier 2) using MBS item 133. (10% of assessments were converted to account for a maximum of two follow-ups for each complex assessment undertaken); and
- c. These converted rates were added to the existing estimates derived for time-tiered items.

6. Case conferencing:

- a. Costs for an additional 5% of all treatment items (uniformly distributed across tiers 1-4) were incorporated at the newly established time-tiered rates to accommodate two new items relating to:
 - i. Case conference participation having co-ordinated other professional involvement prior to the meeting (as an unbilled activity) and acting as case conference chair during the meeting, to be billed at the full rates of the new time-tiered schedule; and
 - ii. Case conference participation (without prior co-ordination and without responsibilities of the chair), to be billed at 80% of the full rates of the new time-tiered schedule.
- b. These costs were added to the existing estimates derived for time-tiered items with complex treatment and management planning.

7. Workforce changes:

- a. Costs associated with anticipated changes in workforce arrangements were based upon:
 - i. A net reduction in practicing fellows from the current estimated base of 142 by 5 in 2014 and an additional 10 in 2015 (from data on the number of fellows reaching the age of retirement: >65 years);
 - ii. A net increase in practicing fellows from graduating trainees above the estimated base of 142 in 2013 by 3 in 2014 and an additional 5 in 2015 (from data on the number of trainees anticipated to graduate); and
 - iii. A constant rate of increment to a net increase in the proportion of current fellows undertaking increased private practice activity, assumed at a 30% increase for all fellows engaging in private practice (but not working in private practice on a full time basis) over the next two years (from 2014-1015);
- b. These costs were added to the existing estimates derived for time-tiered items with complex treatment and management planning and multi-disciplinary case conferencing.

8. Psychiatry:

- a. Costs for current addiction medicine specialists were transferred/substituted to the equivalent rate of activity that would otherwise be performed by the next most relevant specialty area – psychiatry.
- b. Costs of all observed assessment items were transferred/substituted to rate of the current psychiatry equivalent MBS item 296 (initial consultation following referral);
 - i. All assessment occasions of service were retained under an assumption of modified equivalence allowing a comprehensive assessment to occur at any point in the patient episode of care; and
 - ii. Items relating to complex assessment or management planning were included as components of assessment.
- c. Costs of all observed treatment items were transferred/substituted to a rate of the current psychiatry equivalent MBS item 302 (subsequent attendance more than 15 but less than 30 minutes duration);
 - i. Treatment occasions of service were retained under an assumption of modified equivalence allowing a patient review to occur at any point in the patient episode of care; and
 - ii. Items relating to multidisciplinary case conferencing and group/family therapy were included as components of treatment.

9. Psychiatry with complex treatment and management planning and case conferencing:

- a. Costs for current addiction medicine specialists were transferred/substituted to the equivalent rate of activity that would otherwise be performed by the next most relevant specialty area – psychiatry. As for Scenario 9:
 - i. Costs of all observed assessment items were transferred/substituted to rate of the current psychiatry equivalent MBS item 296 (initial consultation following referral);
 - ii. Costs of all observed treatment items were transferred/substituted to a rate of the current psychiatry equivalent MBS item 302 (subsequent attendance more than 15 but less than 30 minutes duration); and

- b. In addition to Scenario 9, complex assessment or management planning was also transferred/substituted to a rate of the current psychiatry equivalent MBS item 291 (referred patient assessment and management plan).

Graphical comparisons were made in all scenarios to present current modelled estimates of services and costs for 2010, 2011, 2012 followed by comparative costs for the estimated cohort of addiction medicine specialists funded under different rates of MBS reimbursement.

Appendix 6 MBS item groups and classifications

In accordance with feedback on the length of time to undertake a comprehensive assessment provided by Chapter fellows, items classified as involving prolonged or comprehensive consultations were estimated to last for more than 40-45 minutes duration.

All items involving development of a referred assessment and/or non-referred comprehensive or other dedicated treatment plan were classified as comprehensive assessment and treatment planning.

Other standard consultation items (at surgery or home/RACF) were classified as treatment items.

Multidisciplinary case conferencing, and group/family therapy items were separately classified.

CATEGORY DESCRIPTION	GROUP DESCRIPTION	SUB GROUP DESCRIPTION	AGGR ITEM NO.	TIMED OR UNTIMED	PROBABLE ASSESSMENT OR TREATMENT
1 Professional Attendances	A1 General Practitioner	1 GP Attendances	3	no	Treatment
			4	no	Treatment
			20	no	Treatment
			23	time	Treatment
			24	no	Treatment
			35	time	Treatment
			36	time	Treatment
			37	time	Treatment
			43	time	Treatment
			44	time	Assessment
			47	time	Assessment
			51	time	Assessment
	A11 After Hours	1 General Practitioner - After Hours	597	time	Treatment
			598	time	Treatment
		2 General Practitioner - Transitional Hours	599	time	Treatment
			600	time	Treatment
	A14 Health Assessments		701	time	Treatment
			703	time	Assessment

CATEGORY DESCRIPTION	GROUP DESCRIPTION	SUB GROUP DESCRIPTION	AGGR ITEM NO.	TIMED OR UNTIMED	PROBABLE ASSESSMENT OR TREATMENT
			705	time	Treatment
			707	time	Assessment
			715	no	Treatment
	A15 Multidisciplinary Care Plans and Case Conferences	1 Multidisciplinary care plans	721	no	Assessment
			723	no	Treatment
			729	no	Treatment
			731	no	Treatment
			732	no	Treatment
		2 Case Conferences	735	time	Treatment
			739	time	Treatment
			743	time	Treatment
			747	time	Treatment
			758	time	Treatment
	A17 Domiciliary Medication Management Review (DMMR)		900	no	Treatment
			903	no	Treatment
	A18 GP attendance associated with PIP incentive payments	1 Taking of cervical smear from unscreened woman	2497	no	Treatment
			2501	time	Treatment
			2504	time	Treatment
		2 Completion of an annual cycle of care for patients with diabetes mellitus	2517	time	Treatment
			2518	time	Treatment
			2521	time	Treatment
			2522	time	Treatment
			2525	time	Treatment
		3 Completion of the asthma cycle of care	2546	time	Treatment
	A2 Other non-referred	1 Surgery Consultations	52	time	Treatment
			53	time	Treatment

CATEGORY DESCRIPTION	GROUP DESCRIPTION	SUB GROUP DESCRIPTION	AGGR ITEM NO.	TIMED OR UNTIMED	PROBABLE ASSESSMENT OR TREATMENT
			54	time	Treatment
			57	time	Assessment
			58	time	Treatment
			59	time	Treatment
			60	time	Treatment
			65	time	Assessment
	A20 GP Mental Health Treatment	1 GP Mental Health Care plans	2700	time	Treatment
			2701	time	Treatment
			2712	no	Treatment
			2713	time	Treatment
			2715	time	Treatment
			2717	time	Treatment
		2 Focussed Psychological Strategies	2721	time	Treatment
			2725	time	Treatment
			2727	no	Treatment
	A22 GP after-hours attendances to which no other item applies		5000	no	Treatment
			5010	no	Treatment
			5020	time	Treatment
			5023	time	Treatment
			5028	time	Treatment
			5040	time	Treatment
			5043	time	Treatment
			5049	time	Treatment
			5060	time	Treatment
			5063	time	Assessment
			5067	time	Treatment
	A23 Other non-referred after-hours attendances to which no other item applies		5203	time	Treatment
			5207	time	Treatment

CATEGORY DESCRIPTION	GROUP DESCRIPTION	SUB GROUP DESCRIPTION	AGGR ITEM NO.	TIMED OR UNTIMED	PROBABLE ASSESSMENT OR TREATMENT
	A24 Pain and Palliative Medicine	1 Pain Medicine Attendances	2801	no	Treatment
			2806	no	Treatment
		2 Pain Medicine Case Conferences	2946	time	Treatment
	A29 Early Intervention Services for Children		139	time	Assessment
	A3 Specialist		99	time	Treatment
			104	no	Assessment
			105	no	Treatment
	A30 Medical Practitioner (GP/Spec/or Cons. Phy.)Telehealth Attendances	1 Telehealth Attendance at Rooms, Home Visits or Other Institutions.	2126	time	Treatment
			2143	time	Treatment
	A4 Consultant Physician (other than Psychiatry)		110	no	Assessment
			116	no	Treatment
			119	no	Treatment
			132	time	Assessment
			133	time	Treatment
	A5 Prolonged		160	time	Treatment
	A6 Group Therapy (other than by psychiatrist)		170	time	Treatment
			171	time	Treatment
			172	time	Treatment
	A7 Acupuncture		197	time	Treatment
			199	time	Treatment
2 Diagnostic Procedures and Investigations	D1 Miscellaneous Diagnostic Procedures and Investigations	2 Ophthalmology	11241	no	Treatment
		4 Respiratory	11506	no	Treatment
		6 Cardiovascular	11700	no	Treatment
			11701	no	Treatment
			11702	no	Treatment

CATEGORY DESCRIPTION	GROUP DESCRIPTION	SUB GROUP DESCRIPTION	AGGR ITEM NO.	TIMED OR UNTIMED	PROBABLE ASSESSMENT OR TREATMENT
			11709	time	Treatment
		7 Gastroenterology and Colorectal	11820	no	Treatment
3 Therapeutic Procedures	T1 Miscellaneous Therapeutic Procedures	12 Dermatology	14050	no	Treatment
		13 Other Therapeutic Procedures	14203	no	Treatment
			14206	no	Treatment
			14215	no	Treatment
			14224	no	Treatment
	T10 Relative Value Guide for Anaesthesia	6 Upper Abdomen	20740	no	Treatment
		7 Lower Abdomen	20810	no	Treatment
		8 Perineum	20902	no	Treatment
	T4 Obstetrics		16500	no	Treatment
	T6 Anaesthetics	1 Examination by an Anaesthetist	17610	time	Treatment
	T7 Regional or Field Nerve Blocks		18236	no	Treatment
	T8 Surgical Operations	1 General	30003	no	Treatment
			30026	no	Treatment
			30029	no	Treatment
			30032	no	Treatment
			30035	no	Treatment
			30038	no	Treatment
			30041	no	Treatment
			30045	no	Treatment
			30048	no	Treatment
			30061	no	Treatment
			30062	no	Treatment
			30064	no	Treatment
			30067	no	Treatment
			30071	no	Treatment
			30097	no	Treatment
			30186	no	Treatment
			30192	no	Treatment

CATEGORY DESCRIPTION	GROUP DESCRIPTION	SUB GROUP DESCRIPTION	AGGR ITEM NO.	TIMED OR UNTIMED	PROBABLE ASSESSMENT OR TREATMENT
			30195	no	Treatment
			30202	no	Treatment
			30203	no	Treatment
			30207	no	Treatment
			30216	no	Treatment
			30219	no	Treatment
			30409	no	Treatment
			30439	no	Treatment
			30445	no	Treatment
			30473	no	Treatment
			30476	no	Treatment
			30478	no	Treatment
			30482	no	Treatment
			30483	no	Treatment
			30487	no	Treatment
			30490	no	Treatment
			30511	no	Treatment
			30692	no	Treatment
			31200	no	Treatment
			31205	no	Treatment
			31210	no	Treatment
			31215	no	Treatment
			31225	no	Treatment
			31230	no	Treatment
			31235	no	Treatment
			31240	no	Treatment
			31255	no	Treatment
			31260	no	Treatment
			31265	no	Treatment
			31267	no	Treatment
			31270	no	Treatment
			31275	no	Treatment

CATEGORY DESCRIPTION	GROUP DESCRIPTION	SUB GROUP DESCRIPTION	AGGR ITEM NO.	TIMED OR UNTIMED	PROBABLE ASSESSMENT OR TREATMENT
			31280	no	Treatment
			31281	no	Treatment
			31283	no	Treatment
			31285	no	Treatment
			31286	no	Treatment
			31288	no	Treatment
			31290	no	Treatment
			31293	no	Treatment
			31320	no	Treatment
			31325	no	Treatment
			31330	no	Treatment
			31335	no	Treatment
			31420	no	Treatment
		13 Plastic and Reconstructive	45200	no	Treatment
			45206	no	Treatment
			45665	no	Treatment
		14 Hand Surgery	46513	no	Treatment
			46525	no	Treatment
		15 Orthopaedic	47015	no	Treatment
			47036	no	Treatment
			47336	no	Treatment
			47354	no	Treatment
			47360	no	Treatment
			47369	no	Treatment
			47378	no	Treatment
			47405	no	Treatment
			47423	no	Treatment
			47453	no	Treatment
			47576	no	Treatment
			47594	no	Treatment
			47633	no	Treatment
			47642	no	Treatment

CATEGORY DESCRIPTION	GROUP DESCRIPTION	SUB GROUP DESCRIPTION	AGGR ITEM NO.	TIMED OR UNTIMED	PROBABLE ASSESSMENT OR TREATMENT
			47904	no	Treatment
			47912	no	Treatment
			47915	no	Treatment
		2 Colorectal	32072	no	Treatment
			32084	no	Treatment
			32087	no	Treatment
			32090	no	Treatment
			32093	no	Treatment
			32095	no	Treatment
			32132	no	Treatment
			32135	no	Treatment
			32147	no	Treatment
		4 Gynaecological	35503	no	Treatment
			35516	no	Treatment
			35520	no	Treatment
		5 Urological	36800	no	Treatment
			37803	no	Treatment
		8 Ear, Nose and Throat	41500	no	Treatment
			41656	no	Treatment
			41659	no	Treatment
			41677	no	Treatment
			41764	no	Treatment
			41819	no	Treatment
			41820	no	Treatment
		9 Ophthalmology	42575	no	Treatment
			42620	no	Treatment
			42644	no	Treatment
	T9 Assistance at Operations		51300	no	Treatment
			51303	no	Treatment
			51306	no	Treatment
			51309	no	Treatment

CATEGORY DESCRIPTION	GROUP DESCRIPTION	SUB GROUP DESCRIPTION	AGGR ITEM NO.	TIMED OR UNTIMED	PROBABLE ASSESSMENT OR TREATMENT
5 Diagnostic Imaging Services	I1 Ultrasound	5 Obstetric and Gynaecological	55733	no	Treatment
	I3 Diagnostic Radiology	3 Head	57963	no	Treatment
6 Pathology Services	P9 Simple Basic Tests		73805	no	Treatment
			73806	no	Treatment
			73811	no	Treatment
8 Miscellaneous Services	M12 Services provided by a Practice Nurse/Registered Aboriginal Health Worker	3 Practice Nurse/Aboriginal Health Worker service	10986	no	Treatment
			10987	no	Treatment
			10997	no	Treatment
#N/A	#N/A	#N/A	1	#N/A	Treatment
			2	#N/A	Treatment
			19	#N/A	Treatment
			25	#N/A	Treatment
			33	#N/A	Treatment
			38	#N/A	Treatment
			40	#N/A	Treatment
			48	#N/A	Treatment
			50	#N/A	Treatment
			87	#N/A	Treatment
			89	#N/A	Treatment
			90	#N/A	Treatment
			91	#N/A	Treatment
			97	#N/A	Treatment
			98	#N/A	Treatment
			601	#N/A	Treatment
			602	#N/A	Treatment
			700	#N/A	Treatment
			702	#N/A	Treatment
			709	#N/A	Treatment
			710	#N/A	Treatment

CATEGORY DESCRIPTION	GROUP DESCRIPTION	SUB GROUP DESCRIPTION	AGGR ITEM NO.	TIMED OR UNTIMED	PROBABLE ASSESSMENT OR TREATMENT
			711	#N/A	Treatment
			712	#N/A	Treatment
			713	#N/A	Treatment
			717	#N/A	Treatment
			718	#N/A	Treatment
			719	#N/A	Treatment
			725	#N/A	Treatment
			727	#N/A	Treatment
			734	#N/A	Treatment
			740	#N/A	Treatment
			744	#N/A	Treatment
			746	#N/A	Treatment
			778	#N/A	Treatment
			779	#N/A	Treatment
			2702	#N/A	Treatment
			2710	#N/A	Treatment
			5026	#N/A	Treatment
			5046	#N/A	Treatment
			5064	#N/A	Treatment
			10993	#N/A	Treatment
			10994	#N/A	Treatment
			10995	#N/A	Treatment
			10996	#N/A	Treatment
			10998	#N/A	Treatment
			10999	#N/A	Treatment
			50124	#N/A	Treatment

Appendix 7 Detailed MBS data classification and analysis framework

GROUP DESCRIPTION	ITEM	BENEFIT AS AT FEB 2013		NUMBER	OF	SERVICES			ESTIMATE	COST OF	SERVICES	(AT	FEBRUARY	2013)
			Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/group therapy	Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/gro up therapy
A1 General Practitioner	3	16.6		2500						\$41,500.00				
A1 General Practitioner	4	42.05				9						\$378.45		
A1 General Practitioner	20	62.4				103						\$6,427.20		
A1 General Practitioner	23	36.3		83928						\$3,046,586.40				
A1 General Practitioner	24	61.75				2399						\$148,138.25		
A1 General Practitioner	35	82.4				3586						\$295,486.40		
A1 General Practitioner	36	70.3		17286						\$1,215,205.80				
A1 General Practitioner	37	95.75				3514						\$336,465.50		
A1 General Practitioner	43	116.1				184						\$21,362.40		
A1 General Practitioner	44	103.5	6294						\$651,429.00					
A1 General Practitioner	47	128.95				1801						\$232,238.95		

GROUP DESCRIPTION	ITEM	BENEFIT AS AT FEB 2013		NUMBER	OF	SERVICES			ESTIMATE	COST OF	SERVICES	(AT	FEBRUARY	2013)
			Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/group therapy	Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/gro up therapy
A1 General Practitioner	51	149.3				58						\$8,659.40		
A2 Other non-referred	52	11		65						\$715.00				
A2 Other non-referred	53	21		12151						\$255,171.00				
A2 Other non-referred	54	38		3807						\$144,666.00				
A2 Other non-referred	57	61	5789						\$353,129.00					
A2 Other non-referred	58	24				127						\$3,048.00		
A2 Other non-referred	59	33.5				1104						\$36,984.00		
A2 Other non-referred	60	51				86						\$4,386.00		
A2 Other non-referred	65	73				689						\$50,297.00		
A3 Specialist	99	42.75		14						\$598.50				
A3 Specialist	104	72.75	356						\$25,899.00					
A3 Specialist	105	36.55		530						\$19,371.50				
A4 Consultant Physician (other than Psychiatry)	110	128.3	2133						\$273,663.90					
A4 Consultant Physician (other than Psychiatry)	116	64.2		9948						\$638,661.60				
A4 Consultant Physician (other than Psychiatry)	119	36.55		1						\$36.55				
A4 Consultant Physician	132	224.35			235						\$52,722.25			

GROUP DESCRIPTION	ITEM	BENEFIT AS AT FEB 2013		NUMBER	OF	SERVICES			ESTIMATE	COST OF	SERVICES	(AT	FEBRUARY	2013)
			Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/group therapy	Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/gro up therapy
(other than Psychiatry)														
A4 Consultant Physician (other than Psychiatry)	133	112.3			82						\$9,208.60			
A29 Early Intervention Services for Children	139	129.9			1						\$129.90			
A5 Prolonged	160	217.15		2						\$434.30				
A6 Group Therapy (other than by psychiatrist)	170	115.25						339						\$39,069.75
A6 Group Therapy (other than by psychiatrist)	171	121.4						105						\$12,747.00
A6 Group Therapy (other than by psychiatrist)	172	147.75						16						\$2,364.00
A7 Acupuncture	197	70.3		798						\$56,099.40				
A7 Acupuncture	199	103.5		2064						\$213,624.00				
A11 After Hours	597	127.25		119						\$15,142.75				
A11 After Hours	598	104.75		3						\$314.25				
A11 After Hours	599	150		8						\$1,200.00				
A11 After Hours	600	124.25		1						\$124.25				
A14 Health Assessments	701	58.2			30						\$1,746.00			
A14 Health Assessments	703	135.2			167						\$22,578.40			

GROUP DESCRIPTION	ITEM	BENEFIT AS AT FEB 2013		NUMBER	OF	SERVICES			ESTIMATE	COST OF	SERVICES	(AT	FEBRUARY	2013)
			Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/group therapy	Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/gro up therapy
A14 Health Assessments	705	186.55			113						\$21,080.15			
A14 Health Assessments	707	263.55			183						\$48,229.65			
A14 Health Assessments	715	208.1			2						\$416.20			
A15 Multidisciplinary Care Plans and Case Conferences	721	141.4					3641						\$514,837.40	
A15 Multidisciplinary Care Plans and Case Conferences	723	112.05					3379						\$378,616.95	
A15 Multidisciplinary Care Plans and Case Conferences	729	69					10						\$690.00	
A15 Multidisciplinary Care Plans and Case Conferences	731	69					52						\$3,588.00	
A15 Multidisciplinary Care Plans and Case Conferences	732	70.65					3645						\$257,519.25	
A15 Multidisciplinary Care Plans and Case Conferences	735	69.25					7						\$484.75	
A15 Multidisciplinary Care Plans and Case Conferences	739	118.6					6						\$711.60	
A15 Multidisciplinary Care Plans and Case Conferences	743	197.7					1						\$197.70	
A15 Multidisciplinary Care Plans and Case Conferences	747	50.9					2						\$101.80	
A15 Multidisciplinary Care Plans and Case Conferences	758	145.3					6						\$871.80	

GROUP DESCRIPTION	ITEM	BENEFIT AS AT FEB 2013		NUMBER	OF	SERVICES			ESTIMATE	COST OF	SERVICES	(AT	FEBRUARY	2013)
			Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/group therapy	Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/gro up therapy
A17 Domiciliary Medication Management Review (DMMR)	900	151.75				176						\$26,708.00		
A17 Domiciliary Medication Management Review (DMMR)	903	103.9				134						\$13,922.60		
A30 Medical Practitioner (GP/Spec/or Cons. Phy.)Telehealth Attendances	2126	48.95		1						\$48.95				
A30 Medical Practitioner (GP/Spec/or Cons. Phy.)Telehealth Attendances	2143	94.95		2						\$189.90				
A18 GP attendance associated with PIP incentive payments	2497	16.6		1						\$16.60				
A18 GP attendance associated with PIP incentive payments	2501	36.3		1						\$36.30				
A18 GP attendance associated with PIP incentive payments	2504	70.3		4						\$281.20				
A18 GP attendance associated with PIP incentive payments	2517	36.3		227						\$8,240.10				
A18 GP attendance associated with PIP incentive	2518	61.75		1						\$61.75				

GROUP DESCRIPTION	ITEM	BENEFIT AS AT FEB 2013		NUMBER	OF	SERVICES			ESTIMATE	COST OF	SERVICES	(AT	FEBRUARY	2013)
			Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/group therapy	Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/gro up therapy
payments														
A18 GP attendance associated with PIP incentive payments	2521	70.3		98						\$6,889.40				
A18 GP attendance associated with PIP incentive payments	2522	95.75				1						\$95.75		
A18 GP attendance associated with PIP incentive payments	2525	103.5		3						\$310.50				
A18 GP attendance associated with PIP incentive payments	2546	36.3		5						\$181.50				
A20 GP Mental Health Treatment	2700	70.3			3						\$210.90			
A20 GP Mental Health Treatment	2701	103.5			3						\$310.50			
A20 GP Mental Health Treatment	2712	70.3			1796						\$126,258.80			
A20 GP Mental Health Treatment	2713	70.3			21744						\$1,528,603.20			
A20 GP Mental Health Treatment	2715	89.25			201						\$17,939.25			

GROUP DESCRIPTION	ITEM	BENEFIT AS AT FEB 2013		NUMBER	OF	SERVICES			ESTIMATE	COST OF	SERVICES	(AT	FEBRUARY	2013)
			Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/group therapy	Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/gro up therapy
A20 GP Mental Health Treatment	2717	131.45			216						\$28,393.20			
A20 GP Mental Health Treatment	2721	90.95						508						\$46,202.60
A20 GP Mental Health Treatment	2725	130.15		486						\$63,252.90				
A20 GP Mental Health Treatment	2727	155.6				1						\$155.60		
A24 Pain and Palliative Medicine	2801	128.3		15						\$1,924.50				
A24 Pain and Palliative Medicine	2806	64.2		17						\$1,091.40				
A24 Pain and Palliative Medicine	2946	118.25					4						\$473.00	
A22 GP after-hours attendances to which no other item applies	5000	28.45		13						\$369.85				
A22 GP after-hours attendances to which no other item applies	5010	74.25				2						\$148.50		
A22 GP after-hours attendances to which no other item applies	5020	48.05		4931						\$236,934.55				
A22 GP after-hours attendances to which no	5023	73.5				292						\$21,462.00		

GROUP DESCRIPTION	ITEM	BENEFIT AS AT FEB 2013		NUMBER	OF	SERVICES			ESTIMATE	COST OF	SERVICES	(AT	FEBRUARY	2013)
			Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/group therapy	Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/gro up therapy
other item applies														
A22 GP after-hours attendances to which no other item applies	5028	93.85				184						\$17,268.40		
A22 GP after-hours attendances to which no other item applies	5040	82.3		484						\$39,833.20				
A22 GP after-hours attendances to which no other item applies	5043	107.75				155						\$16,701.25		
A22 GP after-hours attendances to which no other item applies	5049	128.1				13						\$1,665.30		
A22 GP after-hours attendances to which no other item applies	5060	115.45		18						\$2,078.10				
A22 GP after-hours attendances to which no other item applies	5063	140.9				18						\$2,536.20		
A22 GP after-hours attendances to which no other item applies	5067	161.25				8						\$1,290.00		
A23 Other non-referred after-hours attendances to which no other item applies	5203	31		324						\$10,044.00				

GROUP DESCRIPTION	ITEM	BENEFIT AS AT FEB 2013		NUMBER	OF	SERVICES			ESTIMATE	COST OF	SERVICES	(AT	FEBRUARY	2013)
			Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/group therapy	Professional attendance for assessment	Professional attendance for treatment	Treatment and management planning	Home or other residential visit	Case conf.	Family/gro up therapy
A23 Other non-referred after-hours attendances to which no other item applies	5207	48		44						\$2,112.00				
Total			14572	139900	24776	14644	10753	968	\$1,304,121	\$6,023,348	\$1,857,827	\$1,245,825	\$1,158,092	\$100,383
Percent of Total			7%	68%	12%	7%	5%	0%	11%	52%	16%	11%	10%	1%