



Development of the Australian Mental Health Care Classification

Public consultation paper 2

November 2015

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public consultation paper 2**

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Glossary

ABF	Activity Based Funding
ABF MHC DSS	ABF Mental Health Care Data Set Specification
AMHCC	Australian Mental Health Care Classification
AR-DRG	Australian Refined Diagnosis Related Group
ECCS	Episode Clinical Complexity Score
HoNOS	Health of the Nation Outcome Scales
HoNOS 65+	Health of the Nation Outcome Scale for older adults
HoNOSCA	Health of the Nation Outcome Scales for Children and Adolescents
IHPA	Independent Hospital Pricing Authority
LSP-16	Abbreviated Life Skills Profile
MHCERG	Mental Health Classification Expert Reference Group
MH-CASC	Mental Health Classification and Service Costs project
MHCT	Mental Health Care Type
MHCS	Mental Health Costing Study
MHIC	Mental Health Interventions Classification
MHLS	Mental Health Legal Status
MHWG	Mental Health Working Group
NMDS	National Minimum Data Set
NOCC	National Outcomes and Casemix Collection
RIV	Reduction in Variance
UQ	University of Queensland

Executive summary

This is the second public consultation paper to inform the development of the Australian Mental Health Care Classification (AMHCC). The first public consultation was undertaken in early 2015.

This paper sets out work undertaken to date, focusing on work completed since the last consultation paper, and seeks stakeholders' views on the proposed classification.

Readers should refer to the [January 2015 consultation paper](#) for detail on the national and international context for the work, the purpose of health care classifications, as well as work undertaken by the University of Queensland (UQ).

At present, there is no single classification used for mental health services. Since 1 July 2013, the Independent Hospital Pricing Authority (IHPA) has priced admitted mental health services using Australian Refined Diagnosis Related Groups (AR-DRGs) as the classification system with a modified pricing model. This is not ideal in the longer term because diagnosis is not as strong a driver of resource utilisation for mental health services as it is in other acute services, and it can only be applied in the admitted setting. ABF is not currently used for non-admitted mental health services, which are block funded.

The development of the AMHCC is in the interests of all Australian governments, mental health service providers and ultimately those with mental health issues. It will provide more accurate and consistent data about the services provided across all mental health care settings. It has the potential to cover a range of services.

Development of the AMHCC commenced in 2012. To date, following the UQ study into [Definition and Cost Drivers for Mental Health Services](#) and consultation with a broad range of stakeholders, IHPA has implemented the Mental Health Care Type (MHCT) and the Activity Based Funding Mental Health Care Data Set Specification (ABF MHC DSS), and has conducted the Mental Health Costing Study (MHCS).

Over the past year IHPA has been developing the classification system itself. This paper presents the first draft of the AMHCC. The AMHCC is informed by the MHCS data, clinical advice and an expert reference group of mental health care and data specialists. The proposed classification set out in this paper is the result of that work. It is important to note that this is version 1.0 of the AMHCC and the start of an ongoing process of implementation, review and refinement.

The draft AMHCC version 1.0 presented in this paper also introduces a new data concept, mental health phase of care, and incorporates clinical measures into national activity data reporting. IHPA acknowledges the challenges these inclusions bring, both in terms of ensuring consistency in application and comprehensive data reporting.

As with other classification systems, development of the AMHCC will take time. It is recognised that significant work is required to support implementation, improve data collection and reporting, and refine the classification including the collection of further data over coming years. Some areas of particular focus are identified in this paper, but broad data collection through regular state and territory data submissions to IHPA is vital to the ongoing development process, and the AMHCC can only be refined once more data is available.

The AMHCC version 1.0 covers the admitted and community settings. At this stage, there is not enough data to develop the residential arm of the classification – IHPA will undertake work over the coming year to determine the best approach to classifying residential mental health care.

The AMHCC is supported by the ABF MHC DSS which specifies the data that states and territories need to report to IHPA on an ongoing basis.

The AMHCC version 1.0 is a consumer level classification that avoids the use of administrative and input oriented variables, with a simple structure which will allow flexibility for further refinement. It is split using six variables: setting, mental health phase of care, age group, mental health legal status (MHLS), Health of the Nation Outcome Scale (HoNOS) and Life Skills Profile (LSP-16).

The AMHCC version 1.0 is currently being pilot tested in four health services nationally.

Consultation questions

IHPA is seeking comments on the following areas:

1. Are the variables included in the draft AMHCC version 1.0 relevant to clinicians, health service managers and other stakeholders?
2. Are there other variables that should be considered in later iterations of the AMHCC?
3. Do the final classification groups have relevance to clinicians, health service managers and other stakeholders?
4. Are the priorities for the next stages of development of the AMHCC appropriate?
5. Are there any other issues which should be taken into account in the next stages of development?

Submissions

To complete a submission please visit: www.consultation.ihpa.gov.au. Submissions close at 5pm AEDT on Friday 18 December 2015. All submissions will be published on the IHPA website unless respondents specifically identify any sections that they believe should be kept confidential due to commercial or other reasons.

More information

The [IHPA website](http://www.ihpa.gov.au) provides up to date information on the development of the AMHCC, including links to key documents referred to in this public consultation paper.

By its nature, this is a technical document which assumes some knowledge of classification development. IHPA recognises the importance of a broader audience engaging in this consultation process. Should your organisation require further resources to assist in explaining the classification development process, please contact IHPA at enquiries.ihpa@ihpa.gov.au.

Introduction

Aims and objectives

As part of the National Health Reform Agreement (the Agreement), the Independent Hospital Pricing Authority (IHPA) is required to price public hospital services on an activity basis “wherever practicable” (Clause A2). The Agreement recognised that some classification systems were less developed than others and allowed for a phased introduction of ABF.

At present, there is no single classification used for mental health services. Since 1 July 2013, IHPA has priced admitted mental health services using Australian Refined Diagnosis Related Groups (AR-DRGs) as the classification system with a modified pricing model. This is not ideal in the longer term because diagnosis is not as strong a driver of resource utilisation for mental health services as it is in other acute services, and it can only be applied in the admitted setting.

The goals of developing the Australian Mental Health Care Classification (AMHCC) include:

- a more clinically relevant classification;
- better explanation of resource consumption (cost) at the consumer level; and
- to support integrated service delivery by spanning all service settings.

The development of the AMHCC is in the interests of all Australian governments, mental health service providers and ultimately those with mental health issues. It will provide more accurate and consistent data about the services provided across different mental health care settings, and give more transparency as to where clinical, financial and other resources are applied. The AMHCC will also enable performance benchmarking across a range of mental health services.

Development of the classification

Development of the AMHCC commenced in 2012. To date, following the [Definition and Cost Drivers for Mental Health Services](#) report and consultation with a broad range of stakeholders, IHPA has implemented the Mental Health Care Type (MHCT) and the Activity Based Funding Mental Health Care Data Set Specification (ABF MHC DSS), and has conducted the Mental Health Costing Study (MHCS).

Over the past year IHPA has been developing the classification system. This paper presents the first draft of the AMHCC.

Governance of the project

IHPA is governed by the Pricing Authority which is responsible for IHPA’s functions including its Work Program. The development of the AMHCC is a key item identified in the Work Program.

IHPA’s Mental Health Working Group (MHWG) oversees the development of the AMHCC and reports up through the Jurisdictional Advisory Committee and IHPA’s Chief Executive Officer to the Pricing Authority.

The MHWG advises IHPA on matters relevant to mental health and includes representatives from all jurisdictions, mental health consumers and carers, the National Mental Health Commission, Mental Health Australia, the Royal Australian and New Zealand College of Psychiatrists, the Australian College of Mental Health Nurses, Allied Health Professions Australia, the Royal Australian College of General Practitioners, the Australian Private Hospitals Association, Private Healthcare Australia, the National Disability Insurance Agency, Community Mental Health Australia, the Mental Health Information Strategy Standing Committee and the IHPA Clinical Advisory Committee.

The project is also advised by the Mental Health Classification Expert Reference Group (MHCERG) which includes mental health subject matter experts, classification system development experts and data analysis experts. The MHCERG reports to the IHPA Chief Executive Officer through the MHWG. The membership comprises:

- Prof. Philip Burgess
- Prof. Kathy Eagar
- Ms Ruth Fjeldsoe
- Dr Rod McKay
- Prof. Alan Rosen
- Mr Sebastian Rosenberg
- Dr Ruth Vine.

Work undertaken to date

This chapter provides a summary of the work to date to develop the AMHCC and includes proposed timeframes for implementation.

There are a number of stages in the development of a new classification:

1. define the services to be covered;
2. identify the cost drivers;
3. conduct a patient level costing study;
4. develop the classification system and associated infrastructure (data set specifications, grouping software, etc); and
5. maintain ongoing activity and cost data collection.

To date IHPA has completed steps one, two and three. This paper is part of step four, which comprises the planning, design, development, testing, and transition of the AMHCC for use, noting that mental health services will be priced from 1 July 2017.

Development of a Mental Health Care Type

In 2012, IHPA engaged UQ to develop a definition of mental health care for ABF purposes and to define the cost drivers associated with these services. UQ proposed the creation of a separate Care Type for mental health services.

The MHCT was implemented as a [Health Standard](#) effective 1 July 2014. The MHCT sets the scope of the AMHCC and is defined as follows:

Mental health care is care in which the primary clinical purpose or treatment goal is improvement in the symptoms and/or psychosocial, environmental and physical function relating to a patient's mental disorder.

Mental health care:

- *is delivered under the management of, or regularly informed by, a clinician with specialised expertise in mental health;*
- *is evidenced by an individualised formal mental health assessment and the implementation of a documented mental health plan; and*
- *may include significant psychosocial components including family and carer support.*

It should be noted that 'assessment only' activities are considered in scope for the classification.

The MHCT has been collected for admitted patients since 1 July 2015, and non-admitted patients since 1 July 2014. This is in advance of the implementation of the AMHCC to enable as much time as possible for jurisdictions to identify any issues with the new Care Type. The MHCT is the first Care Type to be allocated if the conditions of its definition are met. The Admitted Patient Care Types have been modified to explicitly exclude patients who meet the definition of the MHCT from the Acute and Subacute Care Types.

Cost drivers and recommended classification architecture

UQ also undertook the *Definition and Cost Drivers for Mental Health Services* study which identified possible cost drivers for further examination in the development of the AMHCC. The project involved a number of stages, including a comprehensive literature review, wide ranging stakeholder consultation, and quantitative analysis using data obtained from Queensland, Victoria and New South Wales.

The project identified potential cost drivers as being consumer-related factors, service factors, treatment factors, legal status, safety and emergency care, and chronic disease management.

UQ concluded that mental health care costs are driven by multiple consumer factors, including (but not limited to) diagnoses, complications and comorbidities, symptoms severity and function.

In addition to the development of definitions and the identification of cost drivers, a mental health classification framework was developed by the project which formed the basis of the consumer level costing study.

Mental health costing study

A key finding of the *Definition and Cost Drivers for Mental Health Services* was that the costing data submitted to the National Hospital Cost Data Collection by jurisdictions for mental health services “was patchy at best”. UQ proposed that IHPA commission a one-off study or series of one-off studies to develop the AMHCC.

In February 2014, IHPA commenced the MHCS to inform the development of the Australian Mental Health Care Classification to generate a data set on mental health services and costs in order to inform the development of the AMHCC version 1.0. The aim of the MHCS was to produce a robust consumer level data set that is representative of mental health services provided in Australia.

26 health services (study sites) participated in the study. Sites comprised a range of public and private admitted and community mental health services, including specialist child and adolescent, older persons, forensic and consultation liaison services. A list of the sites that participated in the MHCS is at Appendix A.

Data collection commenced at study sites on 1 July 2014 and concluded on 31 December 2014, with the final activity and cost data submitted to IHPA in August 2015.

The data that was collected for the MHCS was based on existing national data collections with several new data concepts. The existing national data collections that were drawn upon included the Admitted Patient Care National Minimum Data Set (NMDS), Community Mental Health Care NMDS and the [National Outcomes and Casemix Collection](#) (NOCC).

The new data concepts that were collected included mental health phase of care, mental health interventions and recent episode of mental health care. These were based on recommendations from the *Definition and Cost Drivers for Mental Health Services*. The mental health phase of care and recent episode of mental health care data items were developed with clinical input whilst mental health interventions were collected using the

[Mental Health Intervention Classification](#) (MHIC) developed by the Australian Institute for Health and Welfare.

The MHCS collected data on 30,645 individual consumers and 58,219 episodes of care covering the admitted, community and residential settings.

The MHCS data was compared to broader data sets collected as part of the standard national reporting process for admitted mental health care and hospital-auspiced community mental health care. It was found that the profile of mental health consumers accessing the services, including gender, age and indigenous status at the study sites was similar to that of the population.

The MHCS only collected data on a small number of episodes in the residential mental health setting. As this is unlikely to be representative of the national population and would limit meaningful analysis of this group, IHPA has decided to undertake further work before including this setting in the classification. The development of the residential aspect of the AMHCC is included in the work plan set out at the end of this paper.

Services provided by community-managed organisations comprise a significant and important part of mental health services, and it is intended that later iterations of the AMHCC will be developed using cost and activity data from non-hospital providers.

However, due to the intention to use the AMHCC for ABF pricing purposes from 2017, public mental health services were prioritised for this phase of the development of the classification. IHPA acknowledges the importance of including the community-managed sector in the AMHCC and is working with Mental Health Australia to ensure that the sector is engaged in the ongoing AMHCC development process. It is expected that additional work will be undertaken in relation to this in 2016.

The MHCS Final Report will be available on IHPA's website in early 2016.

Development of a data set specification

In order to support the development of the AMHCC, IHPA is developing the ABF MHC DSS. A DSS sets the requirements for data collection.

The 2015-16 ABF MHC DSS has been registered on the Australian Institute of Health and Welfare's [Metadata Online Registry](#) (METeOR) as an IHPA standard data set specification. IHPA is continuing to work with stakeholders to finalise the 2016-17 ABF MHC DSS.

Developing the AMHCC version 1.0

Development of the AMHCC Version 1.0 commenced in September 2014, following submission of the first tranche of activity data from the MHCS.

Approach to development

The AMHCC version 1.0 is intended to be a consumer level classification that avoids the use of administrative and input oriented variables, with a simple structure which will allow flexibility for further refinement.

Throughout the development process, IHPA has had regard to previous work undertaken in the mental health sector including the draft National Mental Health Services Planning Framework, the MH-CASC study, the NOCC Strategic Review and the consultation undertaken by UQ for the *Definition and Cost Drivers for Mental Health Services* study. Each of these projects involved extensive consultation which IHPA was able to draw upon as required.

In developing the draft AMHCC version 1.0, IHPA applied [principles for classification development](#), completed a thorough data preparation process and undertook data modelling using statistical methods. These processes are set out in detail below.

A number of variables were evaluated to determine the classification groupings (known as end classes). Most of these variables are reported through existing NMDS, with some new data elements collected in the MHCS. Whilst a number of additional variables were proposed in response to the first consultation paper, these were either not reported at a national level, or did not have strong completion rates through existing national reporting or the MHCS.

The variables considered included:

- mental health phase of care (new)
- recent episode of mental health care (new)
- interventions using the Mental Health Interventions Classification (MHIC) (new)
- age (in three broad groups of 0-17, 18-64 and 65+ years)
- measures of functional impairment based on National Outcome Casemix Classification (NOCC) measures, including:
 - Health of the Nation Outcomes Scale (HoNOS), Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA), and Health of the Nation Outcome Scale for older adults (HoNOS 65+)
 - Abbreviated Life Skills Profile (LSP-16)
 - Resource Utilisation Groups – Activities of Daily Living (RUG-ADL)
 - Factors Influencing Health Status (FIHS)
 - Children’s Global Assessment Score (CGAS)
- mental health legal status (MHLS)
- clinical complexity (measured using ICD-10-AM codes, the classification system used to code diagnosis for inpatient episodes of care in Australian hospitals)
- clusters of diagnoses (measured using ICD-10-AM codes)
- geriatric syndrome for consumers aged 65 years and above (measured using ICD-10-AM codes).

Scope of version 1.0

In the longer term, the scope of the AMHCC is any care that meets the definition of the MHCT. However, as discussed in the [January 2015 consultation paper](#), it was expected that version 1.0 of the AMHCC would present a structure for only a subset of this scope. Those services provided outside public mental health services were not included in the MHCS, driven by the imperative to develop a draft of the AMHCC suitable for ABF pricing purposes, and the limitations on consistent patient-level data reporting outside of public health services.

IHPA has been working with Mental Health Australia to engage with the community-managed mental health care sector, including an assessment of data collection and reporting capability, and in 2016 will continue to work with the sector to ensure that future iterations of the AMHCC can be applied more broadly.

Data preparation

The MHCS generated a significant volume of data representing 30,645 individual consumers and 58,219 episodes of care across 26 sites. These included 12,370 admitted care episodes, 45,826 community/ambulatory episodes and 203 residential episodes of care.

It was noted that a significant portion of the data had unknown phases classes or unknown clinical measures scores. Feedback from participating sites and jurisdictions indicated that this was partially due to introduction of the new concept of mental health phase of care, and generally lower compliance rates for completion of the NOCC.

The initial data cleansing process resulted in the unknown phases of care being removed from the data set for the purposes of modelling however the unknown clinical measures remained in the data set.

As a result of the data preparation, data cleansing and data trimming processes undertaken there were 20,934 episodes of care used in the modelling process including 8,356 admitted care episodes and 12,578 community/ambulatory episodes. The data set was deemed to be of a sufficient quality to progress with the classification development process.

Modelling approach

Over four million variations of the splitting variables were tested using statistical methods to determine the best performing variables which were then included in the model. This included the testing of each of the variables listed above independently as well as interactions between those variables.

Statistics were derived from each variation, and used to assess their performance and appropriateness for inclusion in the final model. Statistics included sample sizes, mean costs, coefficient of variation (CV), reduction in deviance (RID) and reduction in variance (RIV). CV, RID and RIV are all ways to measure the performance of a statistical model.

Performance of the splitting variables

Practical considerations – setting and age

While it would be desirable for the AMHCC to be setting agnostic, not all states and territories have implemented a unique patient identifier across their admitted and community/ambulatory systems which would enable this. As such, the AMHCC initially splits by setting – admitted and community – with the residential setting to be included in a later iteration of the classification.

It is intended that the concept of a split by setting will be reviewed at a future date. The necessity of this approach has been acknowledged by the MHCERG and MHWG.

Age groups have different data collection requirements, and often different approaches to care. Initial consultation with the MHCERG and MHWG demonstrated clinical and technical support for this approach, with splits for 0-17, 18-64, and 65+ years age groups.

Therefore, setting and age were included as important 'building blocks' in the models tested.

IHPA considers the three age group splits a 'starting point', noting that other age groupings are used in clinical practice for a number of reasons. However, before consideration of any further age classes, regular national data collection and/or further clinical review is required. IHPA will consider this as part of the future development of the AMHCC.

Phase of care

The MHCS collected the new data element 'mental health phase of care'. Mental health phase of care is defined as the "primary goal of care that is reflected in the consumer's mental health treatment plan at the time of collection, for the next stage in the patient's care". It reflects the prospective assessment of the primary goal of care. An episode of care could be made up of multiple phases of care. The definition is discussed in more detail in the next chapter of this paper.

Mental health phase of care has the effect of subdividing episodes of care into intervals which reflect changes in the intensity and nature of care. The MHCS showed that in the admitted setting, the majority (87.1 per cent) of inpatient admissions are relatively short (up to seven days) and typically have only one phase of care.

However, longer episodes represent a significant proportion of total admitted expenditure with changes in the cost profile evident across the episode.

In the ambulatory/community sector, there is even greater variation within an episode, many of which can last a number of years. Phase of care provides a way of 'breaking up' these episodes into clinically meaningful parts.

In the [Definition and Cost Drivers for Mental Health Services](#) report, UQ proposed that mental health phase of care be tested as a potential cost driver and a way of splitting up episodes.

Analysis of the MHCS data found that mental health phase of care was a significant variable for predicting resource usage and therefore cost across all settings and age groups. As a result, it has been included in the classification.

For example, when comparing two consumers aged between 18 and 64 years in the community setting with the same HoNOS and LSP scores there is a significant range in the mean cost. A better explanation of cost can be provided by also considering the mental health phase of care. Analysis of the MHCS data shows that for this example a consumer in the acute phase of care has an estimated mean cost of \$2,216 while a consumer in the functional gain phase of care has a reduced estimated mean cost of \$1,598.

NOCC outcome measures

IHPA tested the range of clinician-administered outcomes included in the NOCC. The HoNOS (including HoNOSCA and HoNOS 65+) and LSP-16 outcome measures were found to be significant variables for predicting cost across settings and ages. The HoNOS measures were found to be significant variables across all settings, age groups and phases; whereas the LSP-16 was only found to have significant explanatory power in the community setting phases of care for the 18-64 years age group.

The FIHS and CGAS were tested in relation to consumers in the 0-17 years age group. Due to low sample size there was insufficient evidence to support the inclusion of either as a variable at this stage.

RUG-ADL was tested in the 65+ years age group however it was not shown to improve the explanation of cost at this stage. This is possibly due to low sample size in the 65+ years age group in the MHCS data set.

As those clinical measures that were tested but have not been included in the AMHCC at this stage continue to be collected as part of the regular national data collections, IHPA will be able to undertake testing of the variables at a later stage with the potential for inclusion in a later version of the AMHCC.

Mental health legal status

MHLS reflects whether a person is treated on an involuntary basis under the relevant state or territory mental health legislation. MHLS is collected at the episode level, but is typically consistent across the phases within an episode.

MHLS was found to be a significant cost driver in the admitted setting, for those consumers aged 18-64 years in an acute phase of care. In this phase of care, consumers with an involuntary MHLS were found to be significantly more costly.

For example, when comparing two consumers between 18 and 64 years in the admitted setting, in an acute mental health phase of care and high-HoNOS complexity there is a significant range in the mean cost. A better explanation of cost can be provided by also considering the MHLS of the consumer. Analysis of the MHCS shows that for this example a consumer who has an involuntary status has an estimated mean cost of \$20,288 while a consumer who has a voluntary status has a significantly reduced estimated mean cost of \$12,511.

Recent episode of mental health care

The concept of recent episode of mental health care relates to whether a consumer has been seen by the same mental health service organisation within the last five years. It was either reported by the clinician or derived from hospital patient administration systems for the MHCS.

Noting the variation in collection methods and the feedback from the MHCS participants, IHPA did not consider it appropriate to include recent episode of mental health care within the AMHCC at this stage.

Interventions

Mental health interventions relate to selected mental interventions provided to consumers under four categories: assessment and review interventions, therapeutic interventions, emergency interventions and service coordination interventions. It was captured using the Mental Health Intervention Classification (MHIC). The MHIC was designed by the Australian Institute for Health and Welfare in 2013, but has not been routinely captured in admitted data sets to date.

In analysis of the MHCS data, the only intervention that was found to be significant in explaining variation of costs was electro-convulsive therapy (ECT).

This finding is consistent with advice from participants in the MHCS which suggested that the collection of interventions using the MHIC was inconsistent due to concerns that the interventions included were not representative of those interventions provided to mental health care consumers.

IHPA is considering whether ECT should be addressed in the pricing model rather than included as a classification variable. As a result, it has not been included in the classification.

Consultation questions

1. Are the variables included in the draft AMHCC version 1.0 relevant to clinicians, health service managers and other stakeholders?
2. Are there other variables that should be considered in later iterations of the AMHCC?

Draft AMHCC version 1.0

This chapter sets out the proposed structure of the AMHCC version 1.0.

Variables used within the AMHCC

The draft classification has six major splitting variables. The first four levels are categorical variables, and the last two levels are complexity variables. Levels 4 and 6 only apply to a subset of consumers. The classification is described below, and illustrated at Figures 1 and 2.

Level 1 – setting

The first level of the classification splits into admitted and community branches.

The admitted setting includes consumers that are admitted for mental health care. The consumer may be admitted to a general ward or a designated psychiatric unit in a general hospital or a psychiatric hospital.

The community setting (also known as ambulatory) includes specialised and non-specialised mental health care services delivered to consumers who are not admitted to an inpatient facility or reside in a residential mental health care facility.

Level 2 – mental health phase of care

The second level splits based on mental health phase of care. There are five possible phases of care: assessment only, acute, functional gain, intensive extended and consolidating gain. The classification also provides for 'unknown phase'.

Mental health phase of care is defined as the “primary goal of care that is reflected in the consumer’s mental health treatment plan at the time of collection, for the next stage in the patient’s care”. It reflects the prospective assessment of the primary goal of care, rather than a retrospective assessment.

Mental health phase of care is a clinical decision. It is independent of both the treatment setting and the designation of the treating service, and does not reflect service unit type. Mental health phase of care is assessed at the commencement of an episode of care and reviewed where there is a significant change to the consumer’s symptoms and/or psychosocial functioning requiring a clinical review and a change to the mental health treatment plan.

Assessment only

An assessment only phase of care is where the primary goal is to obtain information to determine the consumer’s intervention or treatment requirements, and to arrange for this to occur. The assessment includes a brief history, risk assessment, and a referral to the treating team or other service.

The assessment only phase of care aims to complete a mental health assessment to determine the level of intervention required (if necessary), to decrease or resolve crisis, and either refer the consumer to other more appropriate care providers or admit the consumer into care.

This phase of care is not intended to be applied to consumers who are assessed as part of an ongoing episode of care.

Acute

The goal of an acute phase of care is the short term reduction in severity of symptoms and/or personal distress associated with the recent onset or exacerbation of a psychiatric disorder, crisis, risk, impaired functioning or personal distress.

It would be reasonable to expect that consumers in an acute phase of care in the community would have daily contact with the health care service over a short period of time. In the admitted setting an acute phase would include multiple interventions daily from a wide range of health staff over a short period of time.

Functional gain

The goal of a functional gain phase of care is to improve personal, social or occupational functioning, or to promote psychosocial adaptation in a consumer with impairment arising from a psychiatric disorder. The functional gain phase of care aims to improve consumer functioning by gaining proficiency in self-management, psychosocial adaptation and vocational skills, through structured training and therapy.

It would be reasonable to expect that consumers in a functional gain phase of care in the community would have multiple contacts per week with the health care service for an extended period of time (approximately greater than two weeks) in a structured rehabilitation program, or in the admitted setting to have two to three targeted interventions related to their care plan a week as part of a structured program, with planned leave likely.

Intensive extended

The goal of an intensive extended phase of care is to prevent or minimise further deterioration of the consumer, and reduce the risk of harm in a consumer who has a stable pattern of severe symptoms, frequent relapses or severe inability to function independently.

The intensive extended phase of care aims to assist the consumer to return to functional capacity in order to reduce the risk and impairment that arises from ongoing illness by assertively managing a relapse of symptoms or an emotional disturbance.

It would be reasonable to expect that consumers in an intensive extended phase of care in the community would have a minimum of multiple contacts with the health care service at least weekly over an extended period of time (approximately greater than one month). Contacts with the health care service may vary in frequency as required, and can be delivered over an indefinite period of time. In the admitted setting one to two targeted interventions a day might be provided for an extended period of time, with unescorted leave unlikely.

Consolidating gain

The goal of a consolidating gain (also known as maintenance) phase of care is to maintain the level of consumer functioning or improve functioning during a period of recovery, and minimise deterioration or prevent relapse where the consumer has stabilised and functions relatively independently. The consolidating gain phase of care aims to promote recovery to assist in community integration and independence.

It would be reasonable to expect that consumers in the community in a consolidating gain phase of care would have weekly to monthly contact with the health care service, or one to two targeted interventions a fortnight in the admitted setting with significant leave likely.

Level 3 – age group

The third split in the classification is based on the age of the consumer at the start of mental health phase of care. The three consumer age groups are 0-17 years, 18-64 years, and 65+ years.

Level 4 – mental health legal status

Applies to: admitted setting only, acute phase only, 18-64 years age group only

In the admitted, acute, 18-64 years age group only, there is an additional split based on the MHLS of the consumer (involuntary or voluntary).

MHLS is an indicator of whether mental health care is being provided under the state or territory mental health legislation. An involuntary patient may be detained in hospital under mental health legislation for the purpose of assessment or provision of appropriate treatment or care.

Level 5 – HoNOS complexity

The next split is a HoNOS complexity split (high or moderate). The split is based on the weighted sum of each mental health phase of care's HoNOS scores. The weighted HoNOS scores are assessed against a threshold and classified as 'high' if greater than or equal to the threshold, and 'moderate' if less than the threshold. The weightings are detailed at Appendix B.

The HoNOS is a clinical outcomes measure that captures the symptoms and functioning of the consumer at key points within an episode of mental health care. It is a clinician-rated measure that consists of 12 items that collectively cover the sorts of problems that may be experienced by people with a mental illness.

The HoNOSCA instrument is used for the 0-17 years age group, the HoNOS instrument is used for 18-64 years age group, and the HoNOS 65+ instrument is used for persons aged 65 years and above.

Within each setting, mental health phase of care and age group, there are currently classes to account for those consumers with unknown HoNOS scores; however, it is anticipated that these levels will be phased out over time as reporting of HoNOS scores improves.

Level 6 – LSP-16 complexity

Applies to: community setting only, 18-64 years age group only, moderate HoNOS complexity only

In the community setting, consumers aged 18-64 years with a moderate HoNOS complexity are then classified by assessing the sum of their LSP-16 question scores against a threshold, which classifies the score as high or moderate accordingly.

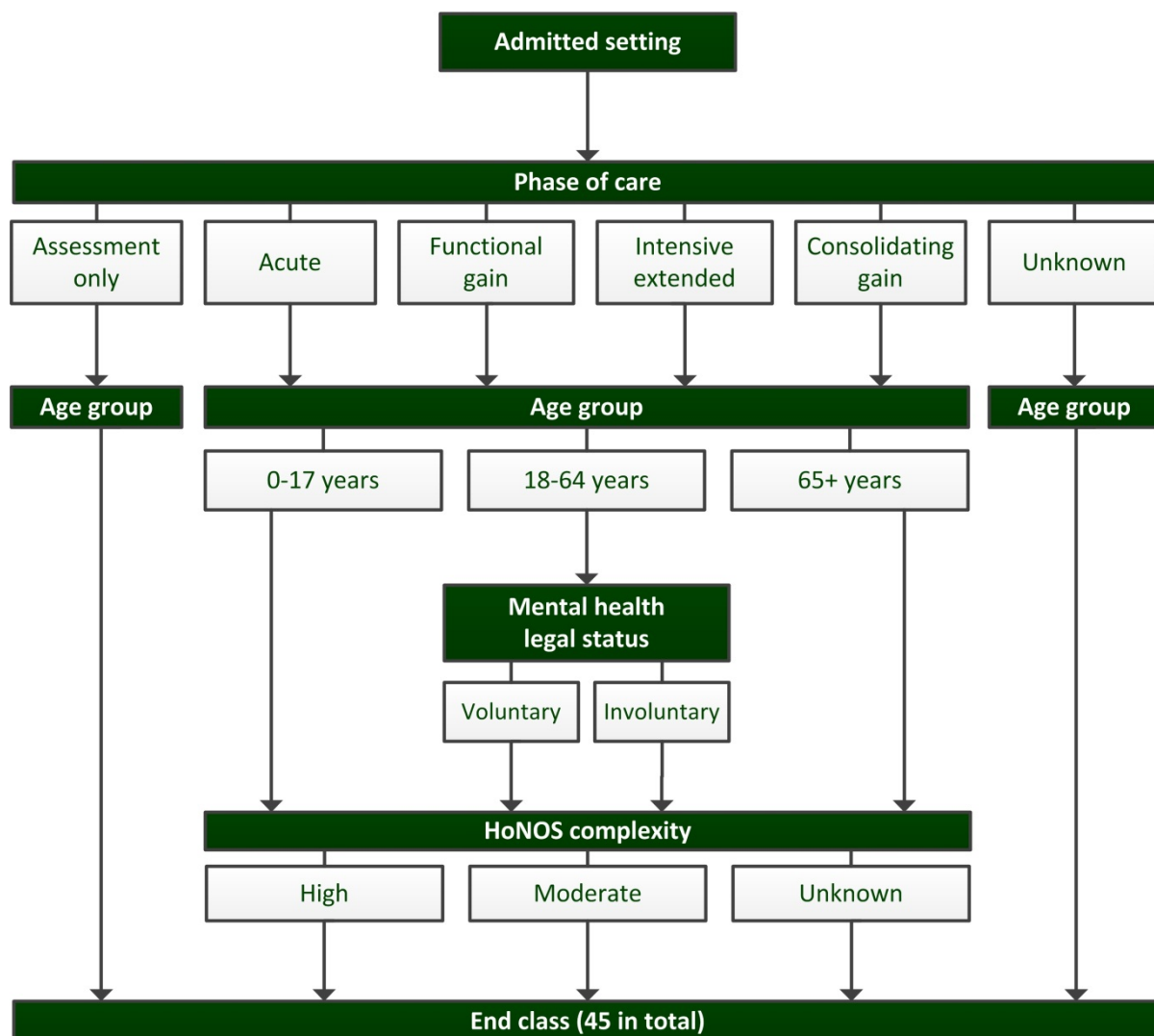
The LSP-16 is a clinical outcomes measure that is designed to measure the level of functioning and adaptation of people with a mental illness living in the community. It consists of 16 items that address issues faced when adapting to life in the community. Each item is rated on a four-point scale ranging from 0 to 3 with high scores indicating higher disability, resulting in an individual item scores, subscale scores and a total score. The LSP-16 thresholds are listed at Appendix B.

More information about the HoNOS and LSP-16 is available on the [Australian Mental Health Outcomes Collection Network website](#).

Admitted setting structure

There are a total of 45 classes in the admitted setting including 16 end classes resulting from unknown mental health phase of care or unknown HoNOS scores. Figure 1 provides an overview of the structure of the admitted setting for the AMHCC version 1.0. Appendix C lists all of the end classes in the admitted setting.

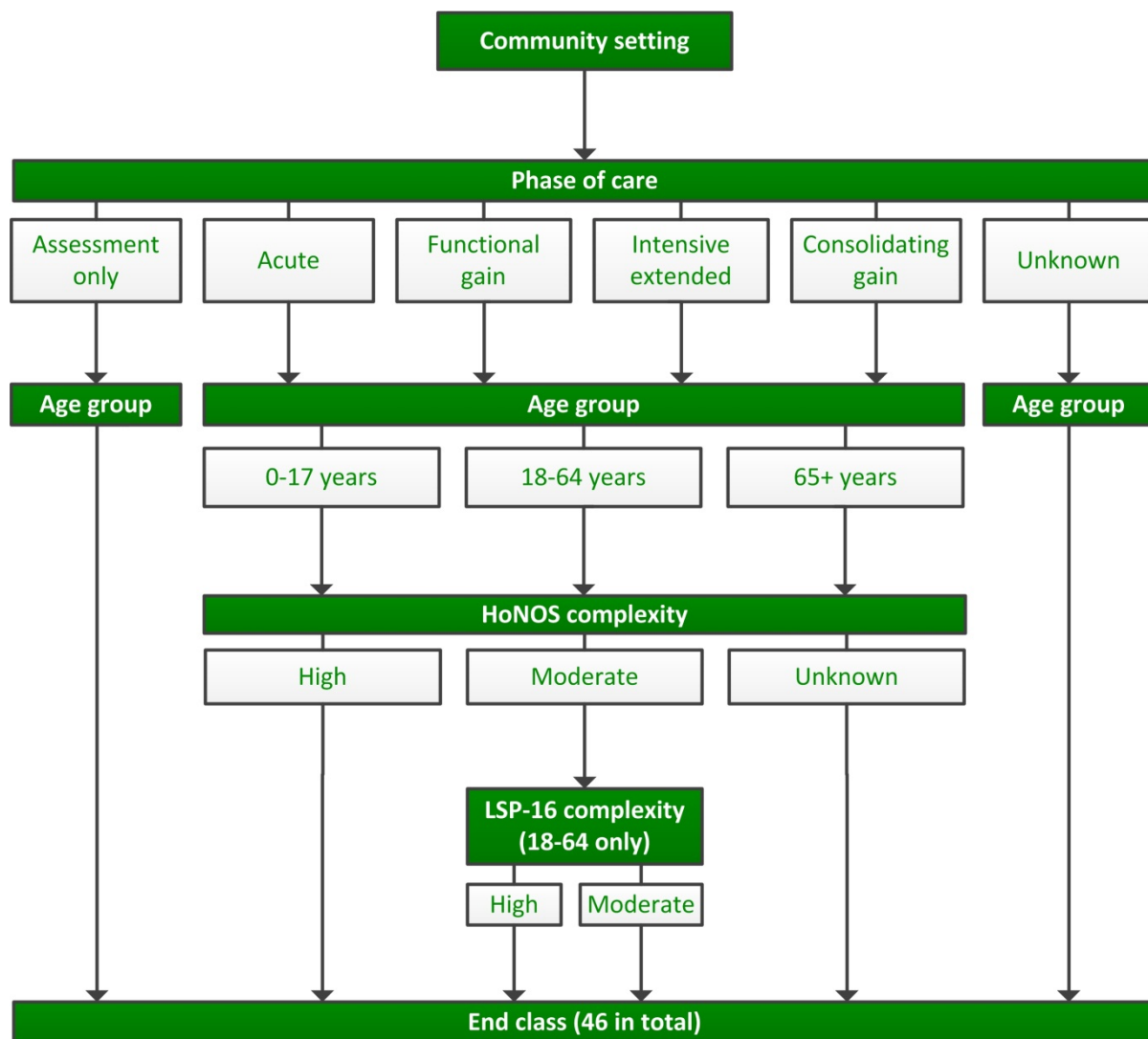
Figure 1: admitted setting structure



Community setting structure

There are a total of 46 classes in the community setting, including 15 end classes resulting from unknown mental health phase of care or unknown HoNOS scores. Figure 2 provides an overview of the structure of the community setting for the AMHCC version 1.0. Appendix C lists all of the end classes in the community setting.

Figure 2: community setting structure



Consultation questions

- Do the final classification groups have relevance to clinicians, health service managers and other stakeholders?

Analysing the performance of the model

Context – the performance of current classification approaches

Admitted mental health care

Admitted mental health care is currently classified using the AR-DRG classification model, and public hospital mental health services are priced using a modified pricing model.

The AR-DRG model is a patient level classification which uses diagnosis and procedures as key variables. Standardised national activity and cost reporting have enabled the AR-DRG system to undergo significant refinement over the past twenty years. The AR-DRG system is currently in its eighth iteration, with its ability to predict the cost of care improving over time.

The mental health DRGs (Major Diagnosis Categories 19 and 20) are the worst performing of the AR-DRG system. Applying the AR-DRG system to the admitted data from the MHCS explains 34.1 per cent of cost variation when using the RIV.

DRGs are also not well regarded by many mental health clinicians, primarily due to the fact that the use of diagnoses to describe patient grouping has little clinical relevance when compared with other measures such as HoNOS.

Non-admitted and community mental health care

There is currently no acceptable classification system for non-admitted and community mental health services, and these services are block funded under the national pricing model designed by IHPA.

Alternative approaches

Mental Health Classification and Service Costs project

During the 1990s, the Commonwealth Department of Health & Family Services funded the Mental Health Classification and Service Costs (MH-CASC) project. The aim of the project was to develop the first version of a national casemix classification, with associated cost weights, for specialist mental health services.

The developers proposed a casemix model across admitted and community mental health episodes, based on 42 patient classes. More detail on this model is provided in the January 2015 consultation paper. As the relevant mental health classification model in Australia, IHPA considered the MH-CASC model in the development of the AMHCC. The AMHCC builds on the work of the MH-CASC developers, in particular the use of NOCC measures in the classification.

An episode-based classification

Noting the work required to implement mental health phase of care within mental health services and data collection systems, IHPA considered an episode-based mental health care classification, that is, one that does not use the phase of care variable. However, such a model did not differentiate between short and longer episodes of care and the variation in intensity of care within longer episodes, nor did it perform as well statistically as the draft

AMHCC version 1.0. The performance of mental health phase of care is further discussed below.

Statistical performance of the draft AMHCC v1.0

The overall technical performance of a classification model can be demonstrated using the RIV. The RIV represents how well the model explains variability of cost with 0 per cent representing no ability to explain the variation and 100 per cent representing a perfect fit.

The predicted episode costs are calculated by predicting phase costs and rolling these predicted costs up to the episode level. The RIV of these predicted episode costs are summarised in Table 1 below.

The draft AMHCC version 1.0 has a RIV of 38.6 per cent in the admitted setting, and 26.6 per cent in the ambulatory/ community setting.

To give a point of comparison, two other classification systems have been applied to the MHCS data: the existing AR-DRG classification and the prototype MH-CASC system discussed earlier. The AR-DRG system is limited to the admitted setting as it is not designed to work in the ambulatory/community space. Table 2 summarises the results.

The AMHCC is shown to perform better than MH-CASC in both settings. There are still considerable improvements to be made to the model which will only be achieved through the collection of national activity and cost data over time. IHPA has an ongoing work program to undertake further analysis and supporting work in the coming months.

Table 1: summary of AMHCC classification model performance at the episode level

Setting	Number of episodes	RIV
Admitted	4,616	38.6%
Community	9,976	26.6%

Table 2: summary of statistical performance (RIV) of AMHCC v1.0, AR-DRG v7 and MHCASC at the episode level

Setting	RIV		
	AMHCC v1.0	AR-DRG v7	MH-CASC
Admitted	38.6%	33.6%	17.9%
Community	26.6%	N/A	5.9%

Performance of mental health phase of care

One of the main goals of a classification is to create classes that have less variation in costs. The implementation of mental health phase of care has the effect of reducing the range of costs within each of the end classes.

Based on the MHCS data set, in the admitted setting, the majority of episodes had a single phase of care (87.3 per cent). However, for episodes that have a length of stay of eight or more days, 28.5 per cent of episodes have two or more phases. The application of mental health phase of care within the admitted setting explains 20.6 per cent of the variation within the data when using RIV. It also reduces the interquartile range, a measure of variability, by 25.6 per cent from \$9,457 to \$7,032.

In the community setting, a significant proportion of episodes, 28.4 per cent, had two or more phases. The application of mental health phase of care within the community setting explains 20.9 per cent of the variation within the data when using RIV, and reduces the interquartile range by 41.7 per cent from \$1,947 to \$1,134.

Clinical validity of the draft AMHCC v1.0

The draft AMHCC has been developed based on a combination of data review and clinical input. The splits in the classification have been included because they demonstrate validity in both areas. With the exception of mental health phase of care, the variables are part of current data reporting and through consultation with clinical groups to date and feedback from the MHCS, have support at a clinician level. For outcome measures included in the NOCC, the AMHCC has the potential to strengthen their use and reporting.

Mental health phase of care is a new concept which allows episodes of care to be broken into shorter periods, which results in greater similarity in resource usage within the groups. As a new concept it has undergone further scrutiny to ensure that it reaches the benchmark for statistical and clinical validity.

This view was supported through later consultation as part of the MHCS and the data gained from the current AMHCC pilot. There was significant feedback from the MHCS that the business rules relating to phase of care needed to be simplified and clarified. Revised rules are being tested as part of the AMHCC pilot, noting that further refinement is expected following a review of the pilot.

IHPA recognises the challenges associated with a new concept such as mental health phase of care, and the further refinement and review that is needed; but as with the NOCC, is confident that the clinical utility of this measure will drive clinician engagement, and ongoing, accurate data collection.

Ongoing development of the AMHCC

As with other classification systems, development of the AMHCC will take time, and further data to support and refine the classification will need to be collected and reviewed over coming years. Development and refinement of the classification will need to be led in part by ongoing and improved data collection, but also clinical support and leadership. Under the *National Health Reform Act 2011*, IHPA has a legislative requirement to develop a classification system and is committed to the ongoing development of the AMHCC.

IHPA, in collaboration with the MHCERG and MHWG, is seeing a new level of cooperation and enthusiasm for a nationally consistent way of classifying all types of mental health care and associated costs at a consumer level, in order to better manage, measure, and fund health care services efficiently and with transparency. This public consultation paper is but one means by which the diverse mental health sector can contribute to the implementation and ongoing refinement of the AMHCC.

IHPA's immediate priorities for development are identified below. Broad activity and cost data collection through regular state and territory data submissions to IHPA is vital to the development process and will drive the improvement of the AMHCC over future years.

Mental health phase of care

Mental health phase of care is a new concept which will require significant review and refinement over the coming years. Some issues identified through the MHCS are outlined below, together with planned actions to address them.

The same five mental health phases of care currently apply in both the admitted and community settings. IHPA considered whether all five phases are required, whether some phases should only be applicable in a particular setting, and whether the definitions of each phase should vary depending on the setting. It is acknowledged that in a future iteration of the AMHCC the number of phases, and the definitions and descriptors for phases may differ across settings.

The MHCS demonstrated that further work is needed in relation to the mental health phase of care business rules ahead of implementation in July 2016. IHPA has already commenced this process with the development of a guidance document currently being tested through the AMHCC pilot, and intends to conduct an inter-rater reliability study of the different phases within mental health phase of care with clinicians across Australia in early 2016.

Following an evaluation of the AMHCC pilot and the inter-rater reliability study, IHPA will review the phase of care definitions, descriptors and business rules. In addition, IHPA will use regular jurisdictional data submissions to inform a review of the validity of each of the phases.

Child and adolescent mental health care

Responses to the January 2015 consultation paper sought consideration of a broader range of variables in the AMHCC in relation to child and adolescent mental health care. These included, but were not limited to, the interface between mental health care services and other government agencies, the impact of the mental health of primary carers and other social considerations.

IHPA considers these issues as important to take into consideration and will undertake further consultation with the child and adolescent mental health care sector over the coming months. However, it is important to note that not all of these variables are suitable for inclusion in a classification system which seeks to explain the costs of service delivery by the mental health sector, rather than the total economic cost of individuals' illness over time.

Older persons' community mental health care

Analysis of the MHCS data found a low sample size in relation to older persons' community mental health services. However, the AMHCC pilot will provide further activity data with older persons' mental health services within the scope of the data collection of all sites. This will provide valuable insights to inform ongoing work on the AMHCC.

Following the pilot, IHPA will consider how best to address any further issues with the data. This may include a targeted one-off study, and/or consultation with clinical groups.

Clinical complexity and comorbidities

Clinical complexity was considered as a possible variable in the AMHCC version 1.0. Clinical complexity was measured using a calculation based on the principal and additional diagnoses of a consumer, based on a simplified version of the AR-DRG version 8 Episode Clinical Complexity Score (ECCS).

In analysis of the MHCS data, clinical complexity was found to be useful in explaining variations in costs in some phases and ages. However, since the ECCS measures additional mental health diagnoses (for which complexity is also identified through the HoNOS) as well as physical health diagnoses, IHPA does not consider it appropriate to include clinical complexity within the AMHCC at this stage.

As part of its work on future iterations of the AMHCC, IHPA will consider how complexity and comorbidities, including significant chronic physical health comorbidities can best be identified for use in the AMHCC.

Residential mental health care

The MHCS did not produce enough data from residential mental health services to develop this branch of the classification.

In 2016, IHPA will review available data to consider the most appropriate way to address residential mental health in the AMHCC. Until this work is completed, it is proposed that for the purpose of ABF, residential mental health care services continue to be block funded.

Community-managed mental health services

The draft AMHCC version 1.0 has been developed using the MHCS data, which did not include a sample of the community managed sector.

Mental health services in Australia are provided by a diverse range of providers including the federal and state/territory governments, private hospitals and practitioners, and non-government/community-managed organisations. Community-managed services provide a broad range of services such as support programs and early intervention and prevention services which also address broader issues such as employment, housing and carers.

Future iterations of the AMHCC will aim to cover a broader scope of services in order to ensure relevance for a greater range of people, domains and services beyond ABF.

IHPA is working with [Mental Health Australia](#) to ensure that the community-managed sector is able to engage in the development of the AMHCC. This has included resources on Mental Health Australia's website, a series of workshops and webinars with interested Mental Health Australia members, and an assessment by Mental Health Australia of the sector's readiness to adopt the data collection and reporting requirements of the AMHCC.

In 2016, IHPA will consider the most appropriate next steps to inform the broadening of the AMHCC beyond services in scope for ABF.

Consultation questions

4. Are the priorities for the next stages of development of the AMHCC appropriate?
5. Are there any other issues which should be taken into account in the next stages of development?

Implementation

IHPA is currently undertaking a pilot of the AMHCC at four sites nationally. These are listed at Appendix A. The purpose of the pilot is to test the face validity of the AMHCC and the AMHCC supporting materials.

Following the AMHCC pilot and considering responses from this public consultation process, the AMHCC will be refined in consultation with the MHCERG and MHWG before being provided to the Pricing Authority for consideration. The AMHCC version 1.0 will be implemented from 1 July 2016.

In the [Consultation Paper on the Pricing Framework 2016-17](#), IHPA confirmed that the AMHCC will be used for pricing ABF services from 1 July 2017.

IHPA recognises the lead time required by system managers to make changes to their systems to capture the key data elements in the classification, and for clinicians and other stakeholders to undertake training and education to support implementation. Over the coming year IHPA will work with stakeholders, including states and territories to support these changes.

IHPA is currently developing the AMHCC Pilot – Mental Health Phase of Care Guidance and AMHCC User Manual, both of which are being tested through the AMHCC pilot. A range of factsheets and other resources for broader use are available on the [IHPA website](#). In addition, IHPA is also working with interested organisations to facilitate webinars to help explain the AMHCC.

Once the consultation period has concluded, IHPA will consider the feedback received, with these to inform AMHCC version 1.0 to be implemented from 1 July 2016.

IHPA will undertake further targeted consultation with clinicians, service providers, consumer and carer groups, and classification and funding specialists on specific issues as needed throughout this process.

Appendix A: mental health costing study and AMHCC pilot sites

Mental health costing study sites

New South Wales

Concord Centre for Mental Health

Croydon Community Mental Health Services

Hornsby Ku-Ring-Gai Hospital

Macquarie Hospital

Royal North Shore Hospital

Wagga Wagga Base Hospital and Murrumbidgee Community Mental Health

Children's Hospital at Westmead Mental Health Service

The Forensic Hospital, Justice & Forensic Mental Health Network

Queensland

Central Queensland Hospital and Health Service (Central Queensland Mental Health Alcohol & Other Drugs Division)

Gold Coast Hospital and Health Service (Mental Health & Integrated Care Directorate)

Metro North Hospital and Health Service (Metro North Mental Health)

Townsville Health and Hospital Service (Mental Health Service Group)

West Moreton Hospital and Health Service

South Australia

Eastern Community Mental Health Centre

Glenside Hospital – Psychiatric ICU, Country Health (Rural and Remote) Acute Inpatient Unit and Acute Mothers/Baby Unit

Lyell McEwin Hospital – Wards 1G & 1H

Noarlunga Mental Health – Southern Intermediate Care and the Trevor Parry Centre: Community Rehabilitation

Western Australia

Albany Regional Hospital

Broome Regional Hospital

Fremantle Hospital

Graylands Selby-Lemnos and Special Care Health Service

Sir Charles Gairdner Hospital

Private health care facilities

St John of God Richmond Hospital, New South Wales

St John of God Pinelodge Clinic, Victoria

Toowong Private Hospital, Queensland

Perth Clinic, Western Australia

AMHCC pilot sites

St George Hospital, South East Sydney Local Health District, New South Wales

West Moreton Hospital and Health Service, Queensland

Whyalla Hospital and Health Service, South Australia

Tasmanian Health Organisation – North, Tasmania

Appendix B: outcome measure weightings and thresholds

Health of the Nation Outcome Scale

For the purposes of the draft AMHCC version 1.0, HoNOS, HoNOSCA and HoNOS 65+ scores have been weighted as follows.

Setting	Phase	Age group	HoNOS weights													Weighted HoNOS rescaling factor
			W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	
Admitted	Acute	0-17	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0000
		18-64	1.6	0.6	0.6	0.8	0.8	1.6	0.4	0.4	0.6	0.6	0.6	0.6	1.3043	
		65+	1.2	0.8	0.8	1.2	1.2	1.2	0.8	0.8	1	1	1	1	1.0000	
	Functional gain	0-17	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0000
		18-64	1.4	1.2	1.2	1.4	1.4	1.4	0.6	0.6	0.6	0.6	0.6	0.6	1.0345	
		65+	1.2	0.8	0.8	1.2	1.2	1.2	0.8	0.8	1	1	1	1	1.0000	
	Intensive extended	0-17	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0000
		18-64	1.2	1	1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.8571	
		65+	1.2	0.8	0.8	1.2	1.2	1.2	0.8	0.8	1	1	1	1	1.0000	
	Consolidating gain	0-17	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0000
		18-64	1	0.6	0.6	1.4	1.4	1	0.8	0.8	1.4	1.4	0.6	0.6	1.0345	
		65+	1.2	0.8	0.8	1.2	1.2	1.2	0.8	0.8	1	1	1	1	1.0000	
Community	Acute	0-17	1.2	1	1	1	1	1	1.2	0.8	0.8	1	1	0.8	0.8	1.0317
		18-64	1.6	0.6	0.6	0.6	0.6	1.6	1.2	1.2	0.6	0.6	0.6	0.6	1.1538	
		65+	0.8	1	1	1.2	1.2	0.8	1.2	1.2	0.8	0.8	1	1	1.0000	
	Functional gain	0-17	1.2	1	1	1	1	1	1.2	0.8	0.8	1	1	0.8	0.8	1.0317
		18-64	0.8	0.8	0.8	1.2	1.2	0.8	0.8	0.8	1	1	1	1	1.0714	
		65+	0.8	1	1	1.2	1.2	0.8	1.2	1.2	0.8	0.8	1	1	1.0000	
	Intensive extended	0-17	1.2	1	1	1	1	1	1.2	0.8	0.8	1	1	0.8	0.8	1.0317
		18-64	1.4	1.2	1.2	1	1	1.4	0.6	0.6	0.6	0.6	0.6	0.6	1.1111	
		65+	0.8	1	1	1.2	1.2	0.8	1.2	1.2	0.8	0.8	1	1	1.0000	
	Consolidating gain	0-17	1.2	1	1	1	1	1	1.2	0.8	0.8	1	1	0.8	0.8	1.0317
		18-64	0.6	1.2	1.2	0.6	0.6	0.6	1.4	1.4	0.6	0.6	0.6	0.6	1.2000	
		65+	0.8	1	1	1.2	1.2	0.8	1.2	1.2	0.8	0.8	1	1	1.0000	

Note: The 'rescaling factor' is used to ensure the weighted HoNOS scores have the same range as unweighted HoNOS (i.e. 0-48 for HoNOS and HoNOS 65+ and 0-52 for HoNOSCA).

For the purposes of the draft AMHCC version 1.0, the HoNOS, HoNOSCA and HoNOS 65+ thresholds for 'high complexity' are as follows. Any score below the threshold is considered 'medium complexity'.

Setting	Phase	Age group	Weighted HoNOS score threshold for 'high complexity'
Admitted	Acute	0-17 years	17
		18-64 years	14
		65+ years	15
	Functional gain	0-17 years	12
		18-64 years	10
		65+ years	11
	Intensive extended	0-17 years	12
		18-64 years	11
		65+ years	11
	Consolidating gain	0-17 years	9
		18-64 years	8
		65+ years	8
Community	Acute	0-17 years	26
		18-64 years	20
		65+ years	19
	Functional gain	0-17 years	23
		18-64 years	18
		65+ years	15
	Intensive extended	0-17 years	26
		18-64 years	18
		65+ years	15
	Consolidating gain	0-17 years	22
		18-64 years	16
		65+ years	18

Abbreviated Life Skills Profile

For the purposes of the draft AMHCC version 1.0, the LSP-16 thresholds for 'high complexity' are as follows. Any score below the threshold is considered 'moderate complexity'.

Setting	Phase	Age group	Weighted LSP-16 score threshold for 'high complexity'
Community	Acute	18-64 years	15
	Functional gain	18-64 years	12
	Intensive extended	18-64 years	15
	Consolidating gain	18-64 years	13

Appendix C: draft AMHCC version 1.0

This table presents the list of draft AMHCC version 1.0 end classes.

Setting	Draft AMHCC v1 end class	Draft AMHCC v1 description
Admitted	101Z	Admitted, Initial assessment, 0-17 years
	102Z	Admitted, Initial assessment, 18-64 years
	103Z	Admitted, Initial assessment, 65+ years
	111A	Admitted, Acute, 0-17 years, High HoNOS complexity
	111B	Admitted, Acute, 0-17 years, Moderate HoNOS complexity
	111Z	Admitted, Acute, 0-17 years, Unknown HoNOS
	1121A	Admitted, Acute, 18-64 years, Involuntary, High HoNOS complexity
	1121B	Admitted, Acute, 18-64 years, Involuntary, Moderate HoNOS complexity
	1121Z	Admitted, Acute, 18-64 years, Involuntary, Unknown HoNOS
	1122A	Admitted, Acute, 18-64 years, Voluntary, High HoNOS complexity
	1122B	Admitted, Acute, 18-64 years, Voluntary, Moderate HoNOS complexity
	1122Z	Admitted, Acute, 18-64 years, Voluntary, Unknown HoNOS
	113A	Admitted, Acute, 65+ years, High HoNOS complexity
	113B	Admitted, Acute, 65+ years, Moderate HoNOS complexity
	113Z	Admitted, Acute, 65+ years, Unknown HoNOS
	121A	Admitted, Functional gain, 0-17 years, High HoNOS complexity
	121B	Admitted, Functional gain, 0-17 years, Moderate HoNOS complexity
	121Z	Admitted, Functional gain, 0-17 years, Unknown HoNOS
	122A	Admitted, Functional gain, 18-64 years, High HoNOS complexity
	122B	Admitted, Functional gain, 18-64 years, Moderate HoNOS complexity
	122Z	Admitted, Functional gain, 18-64 years, Unknown HoNOS
	123A	Admitted, Functional gain, 65+ years, High HoNOS complexity
	123B	Admitted, Functional gain, 65+ years, Moderate HoNOS complexity
	123Z	Admitted, Functional gain, 65+ years, Unknown HoNOS
	131A	Admitted, Intensive extended, 0-17 years, High HoNOS complexity
	131B	Admitted, Intensive extended, 0-17 years, Moderate HoNOS complexity
	131Z	Admitted, Intensive extended, 0-17 years, Unknown HoNOS
	132A	Admitted, Intensive extended, 18-64 years, High HoNOS complexity
	132B	Admitted, Intensive extended, 18-64 years, Moderate HoNOS complexity
	132Z	Admitted, Intensive extended, 18-64 years, Unknown HoNOS
	133A	Admitted, Intensive extended, 65+ years, High HoNOS complexity
	133B	Admitted, Intensive extended, 65+ years, Moderate HoNOS complexity
	133Z	Admitted, Intensive extended, 65+ years, Unknown HoNOS
	141A	Admitted, Consolidating gain, 0-17 years, High HoNOS complexity
	141B	Admitted, Consolidating gain, 0-17 years, Moderate HoNOS complexity
	141Z	Admitted, Consolidating gain, 0-17 years, Unknown HoNOS

Setting	Draft AMHCC v1 end class	Draft AMHCC v1 description
Admitted (cont.)	142A	Admitted, Consolidating gain, 18-64 years, High HoNOS complexity
	142B	Admitted, Consolidating gain, 18-64 years, Moderate HoNOS complexity
	142Z	Admitted, Consolidating gain, 18-64 years, Unknown HoNOS
	143A	Admitted, Consolidating gain, 65+ years, High HoNOS complexity
	143B	Admitted, Consolidating gain, 65+ years, Moderate HoNOS complexity
	143Z	Admitted, Consolidating gain, 65+ years, Unknown HoNOS
	191Z	Admitted, Unknown phase, 0-17 years
	192Z	Admitted, Unknown phase, 18-64 years
	193Z	Admitted, Unknown phase, 65+ years
Community	201Z	Community, Initial assessment, 0-17 years
	202Z	Community, Initial assessment, 18-64 years
	203Z	Community, Initial assessment, 65+ years
	211A	Community, Acute, 0-17 years, High HoNOS complexity
	211B	Community, Acute, 0-17 years, Moderate HoNOS complexity
	211Z	Community, Acute, 0-17 years, Unknown HoNOS
	212A	Community, Acute, 18-64 years, High HoNOS complexity
	212B1	Community, Acute, 18-64 years, Moderate HoNOS complexity with High LSP complexity
	212B2	Community, Acute, 18-64 years, Moderate HoNOS complexity with Moderate LSP complexity
	212Z	Community, Acute, 18-64 years, Unknown HoNOS
	213A	Community, Acute, 65+ years, High HoNOS complexity
	213B	Community, Acute, 65+ years, Moderate HoNOS complexity
	213Z	Community, Acute, 65+ years, Unknown HoNOS
	221A	Community, Functional gain, 0-17 years, High HoNOS complexity
	221B	Community, Functional gain, 0-17 years, Moderate HoNOS complexity
	221Z	Community, Functional gain, 0-17 years, Unknown HoNOS
	222A	Community, Functional gain, 18-64 years, High HoNOS complexity
	222B1	Community, Functional gain, 18-64 years, Moderate HoNOS complexity with High LSP complexity
	222B2	Community, Functional gain, 18-64 years, Moderate HoNOS complexity with Moderate LSP complexity
	222Z	Community, Functional gain, 18-64 years, Unknown HoNOS
	223A	Community, Functional gain, 65+ years, High HoNOS complexity
	223B	Community, Functional gain, 65+ years, Moderate HoNOS complexity
	223Z	Community, Functional gain, 65+ years, Unknown HoNOS
	231A	Community, Intensive extended, 0-17 years, High HoNOS complexity
	231B	Community, Intensive extended, 0-17 years, Moderate HoNOS complexity
	231Z	Community, Intensive extended, 0-17 years, Unknown HoNOS
232A	Community, Intensive extended, 18-64 years, High HoNOS complexity	

Setting	Draft AMHCC v1 end class	Draft AMHCC v1 description
Community (cont.)	232B1	Community, Intensive extended, 18-64 years, Moderate HoNOS complexity with High LSP complexity
	232B2	Community, Intensive extended, 18-64 years, Moderate HoNOS complexity with Moderate LSP complexity
	232Z	Community, Intensive extended, 18-64 years, Unknown HoNOS
	233A	Community, Intensive extended, 65+ years, High HoNOS complexity
	233B	Community, Intensive extended, 65+ years, Moderate HoNOS complexity
	233Z	Community, Intensive extended, 65+ years, Unknown HoNOS
	241A	Community, Consolidating gain, 0-17 years, High HoNOS complexity
	241B	Community, Consolidating gain, 0-17 years, Moderate HoNOS complexity
	241Z	Community, Consolidating gain, 0-17 years, Unknown HoNOS
	242A	Community, Consolidating gain, 18-64 years, High HoNOS complexity
	242B1	Community, Consolidating gain, 18-64 years, Moderate HoNOS complexity with High LSP complexity
	242B2	Community, Consolidating gain, 18-64 years, Moderate HoNOS complexity with Moderate LSP complexity
	242Z	Community, Consolidating gain, 18-64 years, Unknown HoNOS
	243A	Community, Consolidating gain, 65+ years, High HoNOS complexity
	243B	Community, Consolidating gain, 65+ years, Moderate HoNOS complexity
	243Z	Community, Consolidating gain, 65+ years, Unknown HoNOS
	291Z	Community, Unknown phase, 0-17 years
	292Z	Community, Unknown phase, 18-64 years
	293Z	Community, Unknown phase, 65+ years