

Independent Hospital Pricing Authority

# Consultation Paper on the Pricing Framework for Australian Public Hospital Services 2018-19

July 2017



IHPA

## Consultation Paper on the Pricing Framework for Australian Public Hospital Services 2018-19 – July 2017

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# Glossary

<b>ABF</b>	Activity Based Funding
<b>AN-SNAP</b>	Australian National Subacute and Non-Acute Patient classification
<b>AR-DRG</b>	Australian Refined Diagnosis Related Groups
<b>COAG</b>	Council of Australian Governments
<b>DRG</b>	Diagnosis Related Group
<b>HAC</b>	Hospital Acquired Complication
<b>ICD-10-AM</b>	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification
<b>IHPA</b>	Independent Hospital Pricing Authority
<b>NEC</b>	National Efficient Cost
<b>NEP</b>	National Efficient Price
<b>NWAU</b>	National Weighted Activity Unit
<b>The Commission</b>	Australian Commission on Safety and Quality in Health Care

# 1. Introduction

The *Consultation Paper on the Pricing Framework for Australian Public Hospital Services 2018-19 (Pricing Framework Consultation Paper 2018-19)* is IHPA's primary consultation mechanism. Feedback received from stakeholders will inform the development of the *Pricing Framework for Australian Public Hospital Services 2018-19 (Pricing Framework 2018-19)* which sets out the policy rationale and decisions regarding IHPA's program of work and the decisions in the National Efficient Price and National Efficient Cost Determinations for 2018-19 (NEP18 and NEC18).

IHPA is continuing to progress work to incorporate safety and quality into the pricing and funding of public hospital services in order to improve health outcomes, avoid funding unnecessary or unsafe care and decrease avoidable demand for public hospital services.

This work originated from the [April 2016 Council of Australian Governments' Heads of Agreement on Public Hospital Funding](#). In June 2017, Australian governments signed an [Addendum to the National Health Reform Agreement](#) which sets out public hospital financing arrangements until 1 July 2020 and requires implementation of pricing and funding approaches for sentinel events and hospital acquired complications (HACs) and the development of an approach for avoidable readmissions. This is discussed in Chapter 12 of the *Pricing Framework Consultation Paper 2018-19*.

The *Pricing Framework Consultation Paper 2018-19* also provides an update on the work undertaken to develop a bundled pricing approach for maternity care (Chapter 10) and seeks views on innovative funding models (Chapter 11).

This *Pricing Framework Consultation Paper 2018-19* builds on previous work in this area and should be read in conjunction with the following documents:

- [Pricing Framework for Australian Public Hospital Services 2017-18](#)
- [National Efficient Price Determination 2017-18](#)
- [National Efficient Cost Determination 2017-18](#)

Submissions should be emailed to IHPA Secretariat at [submissions.ihpa@ihpa.gov.au](mailto:submissions.ihpa@ihpa.gov.au).

Submissions close at 5pm on Thursday, 17 August 2017.

All submissions will be published on [IHPA's website](#) unless respondents specifically identify sections that they believe should be kept confidential due to commercial or other reasons.

The *Pricing Framework 2018-19* will be released in November 2017 prior to releasing the NEP18 and NEC18 Determinations in early March 2018. This timing provides an additional layer of transparency and accountability by making available the key principles, scope and approach adopted by IHPA to inform the NEP and NEC Determinations.

## 2. Pricing guidelines

### 2.1 Overview

The Pricing Guidelines signal IHPA's commitment to transparency and accountability in how it undertakes its work (see **Box 1**). The decisions made by IHPA in pricing in-scope public hospital services are evidence-based and utilise the latest costing and activity data supplied to IHPA by states and territories.

In making these decisions, IHPA must balance a range of policy objectives including improving the efficiency and accessibility of public hospital services. This role requires IHPA to exercise judgement on the weight to be given to different policy objectives.

Whilst these Pricing Guidelines are used to explain the key decisions made by IHPA in the annual *Pricing Framework*, they can also be used by governments and other stakeholders to evaluate whether IHPA is undertaking work in accordance with the explicit policy objectives included in the Pricing Guidelines.

IHPA considers that the Pricing Guidelines are working well and therefore no changes are proposed for the *Pricing Framework 2018-19*.



## Box 1: Pricing Guidelines

The Pricing Guidelines comprise the following overarching, process and system design guidelines.

**Overarching Guidelines** that articulate the policy intent behind the introduction of funding reform for public hospital services comprising ABF and block grant funding:

- **Timely-quality care:** Funding should support timely access to quality health services.
- **Efficiency:** ABF should improve the value of the public investment in hospital care and ensure a sustainable and efficient network of public hospital services.
- **Fairness:** ABF payments should be fair and equitable, including being based on the same price for the same service across public, private or not-for-profit providers of public hospital services.
- **Maintaining agreed roles and responsibilities of governments determined by the National Health Reform Agreement:** Funding design should recognise the complementary responsibilities of each level of government in funding health services.

**Process Guidelines** to guide the implementation of ABF and block grant funding arrangements:

- **Transparency:** All steps in the determination of ABF and block grant funding should be clear and transparent.
- **Administrative ease:** Funding arrangements should not unduly increase the administrative burden on hospitals and system managers.
- **Stability:** The payment relativities for ABF are consistent over time.
- **Evidence-based:** Funding should be based on best available information.

**System Design Guidelines** to inform the options for design of ABF and block grant funding arrangements:

- **Fostering clinical innovation:** Pricing of public hospital services should respond in a timely way to introduction of evidence-based, effective new technology and innovations in the models of care that improve patient outcomes.
- **Price harmonisation:** Pricing should facilitate best-practice provision of appropriate site of care.
- **Minimising undesirable and inadvertent consequences:** Funding design should minimise susceptibility to gaming, inappropriate rewards and perverse incentives.
- **ABF pre-eminence:** ABF should be used for funding public hospital services wherever practicable.
- **Single unit of measure and price equivalence:** ABF pricing should support dynamic efficiency and changes to models of care with the ready transferability of funding between different care types and service streams through a single unit of measure and relative weights.
- **Patient-based:** Adjustments to the standard price should be, as far as is practicable, based on patient-related rather than provider-related characteristics.
- **Public-private neutrality:** ABF pricing should not disrupt current incentives for a person to elect to be treated as a private or a public patient in a public hospital.

## 3. Scope of public hospital services

### 3.1 Overview

In August 2011 governments agreed to be jointly responsible for funding efficient growth in 'public hospital services'. As there was no standard definition or listing of public hospital services, the Council of Australian Governments (COAG) assigned IHPA the task of determining whether a service is ruled 'in-scope' as a public hospital service, and therefore eligible for Commonwealth Government funding under the National Health Reform Agreement.

The scope of 'public hospital services' is broader than public hospitals or hospital-based care. For example, private hospitals and non-governmental organisations may provide public hospital services when these services are contracted out by governments or public hospitals. Conversely, while many public hospitals provide residential aged care services, these are not regarded as public hospital services.

### 3.2 Scope of public hospital services and General List of eligible services

Each year, IHPA publishes the 'General List of In-Scope Public Hospital Services' which defines public hospital services eligible for Commonwealth funding, except where funding is otherwise agreed between the Commonwealth and a state or territory.

In accordance with Section 131(f) of the *National Health Reform Act 2011* and Clauses A9-A17 of the National Health Reform Agreement, the General List defines public hospital services eligible for Commonwealth funding to be:

- All admitted programs, including hospital in the home programs. Forensic mental health inpatient services are also included if they were recorded in the 2010 Public Hospital Establishments Collection;
- All Emergency Department services provided by a recognised Emergency Department service; and
- Other non-admitted services that meet the criteria for inclusion on the General List.

A public hospital service's eligibility for inclusion on the General List is independent of the service setting in which it is provided (e.g. at a hospital, in the community, in a person's home). This policy decision ensures that the *Pricing Framework* supports best practice provision of appropriate site of care.

The Pricing Authority determines whether specific services proposed by states and territories are in-scope and eligible for Commonwealth funding based on decision criteria and through reviewing supporting empirical evidence provided by jurisdictions.



The process IHPA follows in assessing services and the decision criteria and interpretive guidelines used by the Pricing Authority are outlined in the [Annual Review of the General List of In-Scope Public Hospital Services](#) policy. Services which are not yet in operation or which meet the criteria but do not have supporting empirical evidence will not be added to the General List.

The criteria and interpretive guidelines are presented in **Box 2**. The General List and A17 List were published as part of the [NEP17 Determination](#) in early March 2017.

IHPA considers the criteria and interpretive guidelines fit for purpose. No further changes are proposed for the *Pricing Framework 2018-19*.

### **Box 2: Scope of public hospital services and General List of eligible services**

In accordance with Section 131(f) of the *National Health Reform Act 2011* and Clauses A9 – A17 of the National Health Reform Agreement, the scope of “Public Hospital Services” eligible for Commonwealth funding under the Agreement are:

- All admitted programs, including hospital in the home programs and forensic mental health inpatient services.
- All Emergency Department services.
- Non-admitted services as defined below.

#### **Non-admitted services**

This listing of in-scope non-admitted services is independent of the service setting in which they are provided (e.g. at a hospital, in the community, in a person's home). This means that in-scope services can be provided on an outreach basis.

To be included as an in scope non-admitted service, the service must meet the definition of a ‘service event’ which is:

An interaction between one or more healthcare provider(s) with one non-admitted patient, which must contain therapeutic/clinical content and result in a dated entry in the patient’s medical record.

Consistent with Clause A25 of the Agreement, IHPA will conduct analysis to determine if services are transferred from the community to public hospitals for the dominant purpose of making those services eligible for Commonwealth funding.

There are two broad categories of in-scope, public hospital non-admitted services:

- A. Specialist Outpatient Clinic Services
- B. Other Non-admitted Patient Services and Non-Medical Specialist Outpatient Clinics

#### **Category A: Specialist outpatient clinic services – Tier 2 Non-Admitted Services Classification – Classes 10, 20 and 30**

This comprises all clinics in the Tier 2 Non-Admitted Services classification, classes 10, 20 and 30, with the exception of the General Practice and Primary Care (20.06) clinic, which is considered by the Pricing Authority as not to be eligible for Commonwealth funding as a public hospital service.

### **Category B: Other non-admitted patient services and non-medical specialist outpatient clinics (Tier 2 Non-Admitted Services Class 40)**

To be eligible for Commonwealth funding as an Other Non-admitted Patient Service or a Class 40 Tier 2 Non-admitted Service, a service must be:

- directly related to an inpatient admission or an Emergency Department attendance; or
- intended to substitute directly for an inpatient admission or Emergency Department attendance; or
- expected to improve the health or better manage the symptoms of persons with physical or mental health conditions who have a history of frequent hospital attendance or admission.

Jurisdictions have been invited to propose services that will be included or excluded from Category B “Other Non-admitted Patient Services”. Jurisdictions will be required to provide evidence to support the case for the inclusion or exclusion of services based on the three criteria above.

The following clinics are considered by the Pricing Authority as not to be eligible for Commonwealth funding as a public hospital service under this category:

- Commonwealth funded Aged Care Assessment (40.02)
- Family Planning (40.27)
- General Counselling (40.33)
- Primary Health Care (40.08)

#### **Interpretive guidelines for use**

In line with the criteria for Category B, community mental health, physical chronic disease management and community based allied health programs considered in-scope will have all or most of the following attributes:

- Be closely linked to the clinical services and clinical governance structures of a public hospital (for example integrated area mental health services, step-up/step-down mental health services and crisis assessment teams);
- Target patients with severe disease profiles;
- Demonstrate regular and intensive contact with the target group (an average of eight or more service events per patient per annum);
- Demonstrate the operation of formal discharge protocols within the program; and
- Demonstrate either regular enrolled patient admission to hospital or regular active interventions which have the primary purpose to prevent hospital admission.

#### **Home ventilation**

A number of jurisdictions submitted home ventilation programs for inclusion on the General List. The Pricing Authority has included these services on the General List in recognition that they meet the criteria for inclusion, but will review this decision in the future once the full scope of the National Disability Insurance Scheme is known.

## 4. Classifications used by IHPA to describe public hospital services

### 4.1 Overview

In order to determine the NEP for services funded on an activity basis, IHPA must first specify the classifications, counting rules, data and coding standards as well as the methods and standards for costing data.

### 4.2 Classification systems

Classification systems provide the hospital sector with a nationally consistent method of classifying all types of patients, their treatment and associated costs in order to better manage, measure and fund high quality and efficient health care services.

Classification systems are a critical element of activity based funding (ABF) as they group patients who have similar conditions and cost similar amounts per episode together (i.e. the groups are clinically relevant and resource homogenous).

### 4.3 Australian Refined Diagnosis Related Groups classification

For NEP17 IHPA used the Australian Refined Diagnosis Related Groups (AR-DRG) Version 8 classification to price admitted acute patient services. IHPA used the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) and the Australian Classification of Health Interventions 10<sup>th</sup> edition for the underlying diagnosis and procedure coding.

In the *Pricing Framework 2017-18*, IHPA foreshadowed an intention to price admitted acute services using AR-DRG Version 9 for NEP18. The new version of the classification was approved by the Pricing Authority in late 2016 and the [final report](#) was published on IHPA's website.

AR-DRG Version 9 incorporates changes to improve the clinical relevance and statistical performance of the classification. These changes include the removal of some administrative variables which were used to group patients as proxies for complexity to promote a reliance on patient characteristics, as well as a simplification of the classification structure to reduce the number of Diagnosis Related Groups (DRGs) in the pre-Major Diagnostic Category.

IHPA will use AR-DRG Version 9 to price admitted acute services for NEP18 underpinned by ICD-10-AM 10<sup>th</sup> edition.

IHPA will commence development in 2017 on ICD-10-AM 11<sup>th</sup> edition and AR-DRG Version 10 for completion in late 2018. IHPA will develop the new version of the AR-DRG classification

in-house to better leverage and build on the existing capabilities of its workforce. The Australian Consortium for Classification Development will remain responsible for updates to ICD-10-AM.

IHPA will consider a number of areas for AR-DRG Version 10, including review of the DRGs for caesarean births to differentiate between emergency and elective deliveries, the continued review of the interventional DRGs from the circulatory diseases and disorders Major Diagnostic Category and ensuring the case complexity process remains clinically relevant and up to date.

### Consultation question

- What additional areas should IHPA consider in developing Version 10 of the Australian Refined Diagnosis Related Groups classification system?

Whilst admitted public hospital services are now consistently classified using ICD-10-AM 10<sup>th</sup> edition and AR-DRG V8.0, IHPA is aware that previous versions of the AR-DRG classifications are still in use by some Australian private hospitals and health funds to classify admitted acute patients. To date, IHPA has provided the materials to continue to support users of the AR-DRG system who are using significantly older versions of the classification.

While mapping between a new version and the previous version of classifications will always occur, changes in coding practice mean that complex business rules and fixes have needed to be developed, and when applied over multiple versions of the AR-DRG classification it creates instability and variation when using the old versions. Improvements in the classification, such as changes in clinical practice and technology and the improvement in accounting for patient clinical complexity, are also not realised for the hospitals or health funds using older versions.

IHPA therefore intends to phase out support for old versions of the AR-DRG classification, with communication and sufficient lead time for the private sector. IHPA proposes to only maintain support for the most current version of AR-DRGs and the previous two versions. (For example under this scenario in 2017-18, V9.0, V8.0 and V7.0).

### Consultation question

- Do you support the phasing out of older versions of the Australian Refined Diagnosis Related Groups classification system?
- What time frame would be sufficient for the health care sector to transition to the more recent versions of the classification?

## 4.4 Australian National Subacute and Non-Acute Patient classification

For NEP17 IHPA used the Australian National Subacute and Non-Acute Patient (AN-SNAP) Version 4 classification to price admitted subacute and non-acute services, including for paediatric rehabilitation and non-acute services. However, per diem prices were retained for paediatric palliative care due to insufficient cost and activity data at the palliative care level.

IHPA will continue to use AN-SNAP Version 4 to price subacute services for NEP18. Subacute and non-acute services which are not classified using AN-SNAP will be classified using DRGs.

IHPA will also price paediatric palliative care services using the AN-SNAP classification for 2018-19 if there is sufficient activity and cost data reliably do so.

IHPA is reviewing all areas of the classification in 2017 with a view to commencing development of AN-SNAP Version 5. This work includes consideration of incorporating comorbidities and a case complexity measure into the admitted branches, further refinement of the cognitive measures for geriatric evaluation and management and reviewing the paediatric palliative care and rehabilitation branches.

## 4.5 Tier 2 Non-Admitted Services classification

The Tier 2 Non-Admitted Services classification categorises a public hospital's non-admitted services into classes which are generally based on the nature of the service provided and the type of clinician providing the service.

IHPA acknowledges that the existing classification is not ideal in the longer term for pricing non-admitted patients as it is not patient centred. However, there are no non-admitted classifications in use internationally which could be suitably adapted to the Australian setting.

IHPA is developing a new Australian Non-Admitted Care Classification that that will be better able to describe patient complexity and more accurately reflect the costs of non-admitted public hospital services. This work is timely as care which has historically been provided in the admitted setting continues to transition to the non-admitted setting, as new electronic medical records allow for a richer and more detailed data set for non-admitted care, and as funders experiment with new funding models which rely on interoperability across hospital settings.

For NEP18, IHPA will continue to use the Tier 2 Non-Admitted Services classification for pricing non-admitted services. It is anticipated only minor amendments will be made to the classification as work continues on the new non-admitted classification.

### 4.5.1 Multidisciplinary case conferences where the patient is not present

Multidisciplinary case conferences have become a more common and important aspect of clinical care. The increasing complexity and specialisation in health care has driven the need for more formalised mechanisms for multidisciplinary collaboration. For this reason, IHPA received strong support from clinicians and other stakeholders for counting, costing and classifying non-admitted multidisciplinary case conferences where the patient is not present.

The *Pricing Framework 2017-18* advised that non-admitted multidisciplinary case conferences where the patient is not present would not be priced for NEP17, but that IHPA would work with jurisdictions to consider additional data items in the non-admitted data sets for future years.

In May 2017, IHPA released the [final report](#) of a study which has assessed the feasibility of capturing data on multidisciplinary case conferences where the patient is not present, with a view to building an understanding of the prevalence of these events and collecting cost data to enable the development of a pricing approach. The study recommended a revised definition of a multidisciplinary case conference and to amend the non-admitted counting rules to support reporting of these activities.

IHPA is refining the Tier 2 Non-Admitted Services classification and counting rules to accommodate the counting, costing and classifying of multidisciplinary case conferences where the patient is not present.

IHPA will work with stakeholders to price these activities in 2018-19 given strong stakeholder support in response to this proposal in previous *Pricing Framework Consultation Papers*. As this will also be the first year of activity data collection for these services, it is proposed that these activities will be shadow funded in 2018-19.

### Consultation question

- Do you support the proposal to shadow price non-admitted multidisciplinary case conferences where the patient is not present for NEP18?

#### 4.5.2 Home ventilation

Version 4 of the Tier 2 Non-Admitted Services classification was introduced from 2015-16 and expanded the definition of the non-admitted home-delivered ventilation class (10.19) to include patients who are dependent on ventilation at night and who without ventilator support would be at risk of imminent hospitalisation. This led to a significant increase in activity covered by this class.

IHPA is investigating if there is a case for creating multiple classes for home ventilation to account for cost variation between patients requiring overnight and continuous ventilation.

The primary data source for non-admitted home ventilation services has been the 2014 Home enteral nutrition, home total parenteral nutrition and home ventilation services costing study report.

IHPA will review 2015-16 data from the National Hospital Cost Data Collection in considering the case for creating multiple non-admitted classes for home ventilation.

### Consultation question

- Do you support investigation of the creation of multiple classes in the classification for home ventilation?

#### 4.6 Emergency care classification

IHPA currently uses the Urgency Related Group and Urgency Disposition Group classification systems to classify presentations to emergency departments and emergency services for ABF purposes.

IHPA acknowledges that the classification systems require improvement for classifying emergency care in the medium to long term. There is a need for an emergency care classification with a stronger emphasis on patient factors, such as diagnosis, compared to the current focus on triage category in the existing classification.

Work commenced on the new emergency care classification systems in 2015. This work has included a costing study which has captured clinician time per patient to allow for more accurate cost allocation. The collection was undertaken by 10 public hospitals across four jurisdictions from April to June 2016. Data on 43,000 presentations were collected during the study period. The data obtained is of good quality and sufficient to develop a new classification for emergency care.

IHPA is analysing how the data variables identified in the study can be incorporated into a classification to be clinically meaningful and provide an appropriate basis for predicting costs. IHPA will undertake public consultation on the draft classification system and data requirements later in 2017. The new emergency care classification is expected to be completed in early 2018. It is proposed that the new classification will be used to price emergency department care from NEP19.



For NEP18 IHPA will price emergency activity using the existing Urgency Related Group Version 1.4 and Urgency Disposition Group Version 1.3 classifications.

#### **4.6.1 Emergency Department Principal Diagnosis Short List**

IHPA has developed an Emergency Department Principal Diagnosis Short List to improve the consistency of diagnosis reporting across jurisdictions. The short list will replace current inconsistencies whereby states and territories have developed localised short lists and variously report principal diagnosis using different diagnoses classifications.

The short list was published on the [IHPA website](#) in March 2017. Improved consistency in diagnosis reporting due to the short list is expected to support the introduction of a new emergency care classification. IHPA will therefore seek endorsement to include the list for national data collection from 2018-19.

#### **4.6.2 ICD-10-AM / SNOMED interoperability tool**

Emergency departments vary in the classification systems which are used to record patient care data. Some jurisdictions use the ICD-10-AM classification for diagnoses reporting, while others use SNOMED CT-AU. This can lead to inconsistencies in the reporting of principal diagnoses for emergency department presentations across Australian public hospitals.

IHPA is developing a mapping tool between the ICD-10-AM and SNOMED CT-AU classifications to improve consistency in the reporting of a patient's principal diagnosis and improve the usefulness of the data for clinical, analytical, classification and pricing purposes.

The tool is expected to support the introduction of the new emergency care classification which is intended to have a larger role for principal diagnosis in classifying patients. The project is expected to be completed by the end of 2017.

### **4.7 Teaching, training and research**

Teaching, training and research activities represent an important role of the public hospital system alongside the provision of care to patients. However, there is currently no acceptable classification system for teaching, training and research, nor are there mature, nationally consistent data collections for activity or cost data which would allow for the activity to be priced.

IHPA is continuing the development of the key technical requirements to introduce ABF for teaching, training and research, including a comprehensive costing study at a representative sample of public hospitals in 2015-16. The study concluded that it is feasible to develop a teaching and training classification, but the results relating to research capability were insufficient for use in classification development.

Development of a new teaching and training classification system is expected to be completed in early 2018. The work includes significant clinical consultation and data modelling. The major classification variables for trainees appear to be their profession and training stage.

IHPA intends to undertake public consultation on the draft classification in late 2017.

Until such time as the classification is developed, IHPA will continue to block fund teaching, training and research activity. These block funding amounts will be determined on the advice of jurisdictions.

## 4.8 Australian Mental Health Care Classification

IHPA has developed the Australian Mental Health Care Classification to classify and price mental health services on an activity basis across both the admitted and non-admitted settings. The classification provides a clinically meaningful way of classifying mental health care and is more predictive of the actual costs of delivering mental health services than the AR-DRG classification. The classification includes a new clinician rated measure of 'mental health phase of care'.

The development of the classification was informed by the outcomes of a study in 2014-15 which collected costs for mental health services and enabled the design of the classification. The classification was also piloted in late 2015 at a small number of sites nationally to test the clinical acceptability, explanatory power of the classification and to identify the system changes necessary to support implementation. Version 1 of the classification was finalised in early 2016 and is on [IHPA's website](#). It was implemented on a best endeavours basis from 1 July 2016.

IHPA undertook an inter-rater reliability study in 2016 to test the rate of agreement amongst clinicians in assigning the concept of 'mental health phase of care' to similar patients. Participants expressed broad support for the concept of phase of care and identified that it would be useful in clinical practice to support consistency in service delivery. The study also found that the instrument had poor to fair inter-rater reliability in its current form, with participants advising that this was to be expected for such a new concept. Participants indicated that more training and ongoing refinement to the definitions and supporting material would result in improvements in the level of agreement between clinicians. The study's final report is on IHPA's website.

The final report recommended a comprehensive training program and a number of modifications to improve the clarity and decrease the ambiguity of the 'mental health phase of care' instrument. Findings from the study, a clinician-led clinical refinement project and feedback from the Mental Health Working Group will be used to refine the instrument and supporting material over 2017.

IHPA has also commenced development of Version 2 of the classification. This development will be informed by findings from the inter-rater reliability study and a review of other clinical assessment measures, including for child and adolescent mental health consumers, which could be incorporated into the classification. IHPA will also examine incorporating clinical complexity and comorbidities into the classification and options for the refinement of the older persons' mental health branch of the classification.

IHPA does not propose to price mental health services using the new classification for NEP18 given the absence of 'phase of care' data at this time. This is further discussed at Chapter 6.

### Consultation question

- What other issues should be considered in the development of Version 2 of the Australian Mental Health Care Classification?

# 5. Data collection

## 5.1 National Hospital Cost Data Collection

IHPA primarily relies on the National Hospital Cost Data Collection to develop the NEP and the price weights for the funding of public hospital services on an activity basis and to develop the NEC for block funded hospitals.

### 5.1.1 Australian Hospital Patient Costing Standards

Data submissions by jurisdictions to the collection are informed by the *Australian Hospital Patient Costing Standards* (the Standards). These Standards are published for those conducting national costing activities and provide the framework for regulators, funders, providers and researchers about the consistency of the cost data collection.

IHPA published [Version 3.1 of the Standards](#) in late 2014. IHPA has since undertaken a comprehensive review to identify the priority areas for improvement, to evaluate alternative cost allocation methods and determine a preference hierarchy of methods for the Standards. The review included consultation with all jurisdictions and other stakeholders.

The findings of the review have informed the development of Version 4 of the Standards and of supporting materials to assist system and hospital managers in undertaking costing activities in public hospitals.

IHPA has revised the structure of the Standards to incorporate a set of overarching principles to guide the costing process and to include business rules which provide detailed guidance from the costing practitioners' perspective on how a Costing Standard can be translated into action, while taking into account practical and operational constraints within organisations.

It is intended that the changes to the Standards will result in greater consistency and improved comparability for future rounds of the collection. Version 4 of the Standards will be released by 30 June 2018 for use in future rounds of the National Hospital Cost Data Collection.

## 5.2 Benchmarking

IHPA has worked with jurisdictions to develop a secure web-based application that allows users to compare cost and activity from hospitals around the country, and gives the ability to compare differences in activity, cost and efficiency at similar hospitals as well as rates of hospital acquired complications. The project was completed in 2016 and the National Benchmarking Portal can be accessed by jurisdictions through [IHPA's website](#).

IHPA will continue to work with jurisdictions to consider how the Portal can be improved to better support system and hospital managers for benchmarking purposes.

# 6. Setting the National Efficient Price for activity based funded public hospitals

## 6.1 Technical improvements

IHPA has developed a robust pricing model that underpins the determination of the NEP. The model is described in detail in the [National Pricing Model Technical Specifications](#) on IHPA's website.

IHPA does not propose any significant modifications to the National Pricing Model for 2018-19. However, IHPA will consider any new technical improvements suggested by jurisdictions and other stakeholders in the development of NEP18.

### 6.1.1 Pricing mental health services

In the *Pricing Framework 2016-17*, IHPA foreshadowed an intention to use the new Australian Mental Health Care Classification to price mental health services from 1 July 2017. The classification includes the new data concept of 'mental health phase of care' which is a prospective assessment of a patient's needs defined by patient characteristics and the associated goals of care.

Reporting of activity and cost data for 'mental health phase of care' varies across jurisdictions. IHPA expects that phase level cost data will be reported by all jurisdictions for the 2017-18 National Hospital Cost Data Collection, which forms the basis for NEP20.

In developing NEP17, IHPA undertook extensive work to develop an approach to pricing a subset of mental health care using the new classification. This approach focused on pricing admitted mental health care and relied on the identification of a suitable proxy for 'mental health phase of care' which was not collected in the 2014-15 National Hospital Cost Data Collection.

While IHPA was able to establish a proxy for 'mental health phase of care' and weights for adult admitted mental health episodes, the results were not considered robust enough to price for NEP17. There was also a lack of clinical support given reservations about proxies for a clinician-rated concept and concerns regarding the appropriateness of the proxies.

IHPA does not propose to price mental health services using the new classification for NEP18.

Full implementation of the Australian Mental Health Care Classification for pricing will occur once phase-level cost and activity data is available from states and territories.

#### Consultation question

- Should IHPA consider any further technical improvements to the pricing model used to determine the National Efficient Price for 2018-19?

## 6.2 Adjustments to the National Efficient Price

### 6.2.1 Overview

Section 131(1)(d) of the *National Health Reform Act 2011* requires IHPA to determine “adjustments to the NEP to reflect legitimate and unavoidable variations in the costs of delivering health care services”. Clause B13 of the National Health Reform Agreement additionally states that IHPA “must have regard to legitimate and unavoidable variations in wage costs and other inputs which affect the costs of service delivery including hospital type and size; hospital location, including regional and remote status; and patient complexity, including Indigenous status.”

IHPA tests whether there are empirical differences in the cost of providing public hospital services in order to determine whether there are legitimate and unavoidable variations in the costs of service delivery that may warrant an adjustment to the NEP. IHPA’s decisions are based on national data sources.

IHPA will examine patient-based characteristics in the cost of providing public hospital services as a first priority before considering hospital or provider-based characteristics. This policy reinforces the principle that funding should follow the patient wherever possible.

IHPA will continue to review these existing adjustments, with the aim of discontinuing adjustments associated with input costs or which are facility-based when it is feasible.

IHPA developed the [Assessment of Legitimate and Unavoidable Cost Variations Framework](#) in 2013 to assist state and territory governments in making applications for consideration of whether a service has legitimate and unavoidable cost variations not adequately recognised in the National Pricing Model. If agreed, IHPA then determines whether an adjustment to the NEP is necessary to account for the variation. Jurisdictions may continue to propose potential unavoidable cost variations under the Framework on an annual basis.

### 6.2.2 Adjustments to be evaluated for NEP18

Queensland and Western Australia have requested that IHPA consider new adjustments or re-evaluate existing adjustments in developing NEP18. These proposals are considered as part of the *Assessment of Legitimate and Unavoidable Cost Variations Framework* process.

#### Patient remoteness

Western Australia considers that the Remoteness Area and Indigenous Adjustments do not adequately account for the location-based costs of delivering hospital services in regional and remote areas. This issue has previously been raised by the Northern Territory. Western Australia has requested that IHPA explore other methodologies to better account for the costs of remoteness, such as the location-based costs associated with extreme isolation and distance, within the relevant adjustments to the NEP.

IHPA is investigating this and other proposals under the *Assessment of Legitimate and Unavoidable Cost Variations Framework*. IHPA will request and review evidence from jurisdictions and undertake analysis to identify the materiality of these issues with regard to number of patients, total expenditure and the difference between the actual cost of care and the price which is received under the NEP to determine if there is a consistent pattern of cost differential.

#### Home ventilation

Queensland has advised that there is a difference in the cost of non-admitted home ventilation services between paediatric and adult patients which may warrant an adjustment. Given that

there is only limited data available for this class, Queensland has suggested that IHPA undertake a costing study to source the information required to further consider this issue.

IHPA will review 2015-16 data from the National Hospital Cost Data Collection to consider the Queensland proposals for non-admitted home ventilation in developing NEP18.

### 6.3 Stability of the national pricing model

Price weights vary across years for many reasons, such as changes in the cost of services. IHPA generally restricts year-to-year changes in price weights to 20 per cent to recognise that predictability in funding for hospital services is important.

During consultation on *the Pricing Framework 2017-18*, IHPA sought advice from stakeholders on whether year-on-year changes in price weights should be further restricted. Through this process it was revealed that there was stakeholder support for the further restriction of price weights of high cost and high volume services to a threshold lower than 20 per cent where investigation of the variability determined that further restriction was warranted.

IHPA investigated the movement in price weights for high cost and high volume services, and their impact on funding stability and predictability. In particular, analysis looked at the impact of movements in price weights across jurisdictions and Local Hospital Networks.

Based on the results of this investigation, and subsequent stakeholder support, IHPA has updated the *National Pricing Model Stability Policy* to allow for great flexibility in the application of stabilisation thresholds. This update will facilitate regular investigation of annual variations in the prices of high volume or high cost services. This process will be undertaken periodically in consultation with jurisdictions.

#### Consultation question

- What are the priority areas for IHPA to consider when evaluating adjustments to NEP18?
- What patient-based factors would provide the basis for these or other adjustments? Please provide supporting evidence, where available.



# 7. Setting the National Efficient Price for private patients in public hospitals

## 7.1 Overview

The National Health Reform Agreement requires IHPA to set the price for admitted private patients in public hospitals accounting for payments made by other parties including private health insurers (for prosthesis and the default bed day rate) and the Medicare Benefits Schedule.

Under the terms of the Agreement (Clause A6 and A7), IHPA does not price private non-admitted patient services.

## 7.2 Costing private patients in public hospitals

The collection of private patient medical expenses is problematic in the National Hospital Cost Data Collection. For example, there is a common practice in some jurisdictions of using Special Purpose Funds to collect associated revenue (e.g. MBS) and reimburse medical practitioners.

These funds generally do not appear in hospital accounts used for costing in the National Hospital Cost Data Collection. This leads to an under attribution of total medical costs across all patients as costs associated with medical staff are applied equally across public and private patients.

For NEP17 IHPA corrected for this issue by inflating the cost of all patients (the 'private patient correction factor') to account for missing costs using data from the Hospital Casemix Protocol which enables more specific identification of missing private patient medical costs.

The use of the correction factor assumes that all private patient costs are missing and that these costs are spread across both private and public patients which is not always the case. For example, some hospitals appear to report specialist medical costs for private patients, whilst others may have costs missing from both public and private patients.

IHPA will work with states and territories to better identify the treatment of private patient costs in the 2015-16 NHCDC data (Round 20) used for NEP18 and ascertain if any revision needs to be made to the existing methodology used to correct for missing costs.

### 7.2.1 Phasing out the private patient correction factor

The private patient correction factor was introduced as an interim solution for the issue of missing private patient costs in the National Hospital Cost Data Collection. Submissions in response to the *Pricing Framework Consultation Paper 2017-18* supported the phasing out the correction factor when it is feasible to do so.

Full compliance with the Australian Hospital Patient Costing Standards will allow for phasing out of the correction factor in the future. IHPA intends to retain the correction factor for NEP18 given that private patient costs are not consistently captured across public hospitals.

### 7.3 Pricing private patients

IHPA deducts payments made by insurers and the Medicare Benefits Schedule for services delivered to private patients. This revenue is deducted to prevent the hospital being paid twice for each private patient – once by the revenue source and a second time by the Commonwealth under the Agreement. IHPA will continue to apply the Private Patient Service Adjustment, to deduct revenue received for medical hospital services and prostheses, and the Private Patient Accommodation Adjustment, to deduct revenue received for accommodation, for NEP18.

IHPA also works with jurisdictions to regularly review activity data to examine the utilisation of public hospitals by private patients in order to detect any emerging trends.

In September 2016, IHPA commissioned an independent review of historical activity data and jurisdictional approaches to pricing private patients to empirically assess the impact of the national ABF model on the utilisation of private health insurance by patients in public hospitals. The study's [final report](#) is on IHPA's website.

The study concluded that the national ABF framework has not been a significant driver in the upward trend in privately funded public hospital separations and that most jurisdictions have not implemented the private patient adjustments for their funding to public hospitals. The study found that jurisdictions have contributed to the increased use of private health insurance in public hospitals by allowing public hospitals to retain revenue from privately insured patients without reductions to funding, inclusion of private patient targets in service agreements and significant promotion of the benefits of electing to be a private patient.

The findings of the study have contributed to a broader public debate about the impact of privately funded public hospital separations on private health insurance premiums, as well as informing ongoing dialogue between Australian governments on this issue.

IHPA will continue to investigate whether its private patient adjustments are accurately deducting other sources of revenue, and will undertake investigations to ensure that the adjustments are not having any perverse impact on the delivery of public hospital services to both public and private patients.

# 8. Treatment of other Commonwealth programs

## 8.1 Overview

Under Clause A6 of the National Health Reform Agreement, IHPA is required to discount funding that the Commonwealth provides to public hospitals through programs other than the Agreement to prevent the hospital being funded twice for the service. The two major programs are blood products (through the *National Blood Agreement*) and Commonwealth pharmaceutical programs including:

- Highly Specialised Drugs (Section 100 funding)
- Pharmaceutical Reform Agreements – Pharmaceutical Benefits Scheme Access Program
- Pharmaceutical Reform Agreements – Efficient Funding of Chemotherapy (Section 100 funding)

IHPA is not proposing to change the treatment of these programs for NEP18.

IHPA intends to continue to work with jurisdictions to investigate how blood costs can more accurately be captured in the National Hospital Cost Data Collection for future years.

# 9. Setting the National Efficient Cost

## 9.1 National Efficient Cost 2018-19

IHPA developed the NEC for hospitals with activity levels which are too low to be suitable for funding on an activity basis, such as small rural hospitals. These hospitals are funded by a block allocation based on their size, location and the type of services which they provide.

For NEC15, IHPA introduced new 'low volume' thresholds to determine whether a public hospital is eligible to receive block funding. IHPA considered the underlying data to be sufficiently robust to include all activity in the low volume threshold and not just the admitted acute activity. IHPA will retain this approach for NEC18.

IHPA uses the public hospital expenditure reported in the National Public Hospital Establishments Database to determine the NEC for block funded hospitals.

This data collection predated the introduction of ABF nationally and its existing structure (up to and including 2013-14) did not differentiate between expenditure considered in-scope under the National Health Reform Agreement and other expenditure.

For past NEC Determinations, IHPA has carried out significant modelling to identify out of scope expenditure in the data collection. In 2013, IHPA commissioned the Australian Institute for Health and Welfare to redevelop the data collection to allow for clearer reporting of in-scope expenditure by care stream. This work has been completed and is now reflected in all annual collections since the 2014-15. As in-scope expenditure is reported directly, modelling of in-scope expenditure will no longer be required. This will be reflected in the development of NEC18.

IHPA expects that the improvements to the data collection will lead to some block funded hospitals changing their group, which is used to determine their efficient cost in NEC17.

### 9.1.1 Transferring services from ABF hospitals to block funded hospitals

Public hospital services may be transferred between ABF and block funded hospitals as part of policies designed to provide increased access to services for rural communities by bringing services 'closer to home'. This often includes services such as renal dialysis, maternity and some elective surgery. IHPA notes reports from some stakeholders that the transfer of public hospital services from ABF hospitals to block funded hospitals may increase costs for block funded hospitals, without an accompanying increase in revenue.

This is because the ABF and block funded models use different methodologies to determine the efficient price or cost. The ABF model calculates an efficient price for each hospital service, whereas the block funded model calculates an efficient cost of the hospital based on groupings which consider in-scope expenditure, hospital location and the total volume and type of services provided.

The difference in methodologies means that a decrease in funding through the ABF model does not necessarily lead to an equivalent increase in the block funded model. For example, an increase in the services provided by a block funded hospital may not be sufficient to meet

the activity threshold to change the hospital grouping which determines the funding amount. IHPA understands that some jurisdictions are taking different approaches to address this concern. For example, IHPA understands that NSW have developed a “fixed plus variable” funding model, which includes a fixed amount of funding that accounts for fixed overhead costs, and a variable amount of funding driven by the amount of activity that a small hospital undertakes.

IHPA will investigate whether there is a financial impact from transferring services from ABF to block funded hospitals and whether the methodology for calculating the efficient cost of block funded hospitals should be amended to address this issue.

### Consultation questions

- Should IHPA ensure that there is no financial penalty due to the transfer of public hospital services from ABF hospitals to block funded hospitals?
- If so, how should this be carried out?

## 9.2 Teaching, training and research

For NEC17, IHPA determined block funding amounts for teaching, training and research activity in ABF hospitals based on jurisdictional advice. IHPA will continue this approach in NEC18 and until such time that an ABF is implemented for teaching and training or research.

## 9.3 Non-admitted mental health services

For NEC17, IHPA determined block funding amounts for non-admitted mental health activity in ABF hospitals based on jurisdictional advice. IHPA will continue this approach in NEC18 and until such time that sufficient non-admitted mental health data are reported to enable these services to be priced using the Australian Mental Health Care Classification.

### 9.3.1 Residential mental health care services

Residential mental health care services were block funded in 2017-18 as the technical requirements for applying ABF were not able to be satisfied. The [November 2015 public consultation paper](#) stated that the Mental Health Costing Study did not collect enough data from residential mental health services to develop this branch of the Australian Mental Health Care Classification.

IHPA has since reviewed the materiality of residential mental health care to determine whether the classification could be refined to enable this care to be priced on an activity basis. In 2014-15, national residential mental health care had a considerably smaller volume of activity (6,851 separations) and significantly lower costs (\$304 million) compared to admitted mental health care (157,104 separations and \$1.6 billion). IHPA has also found significant variability in the application of the definition of residential mental health care services across jurisdictions.

IHPA proposes that residential mental health care services continue to be block funded as the development of an activity based pricing approach is not appropriate at this stage given the small volume of activity, significantly lower costs and lack of available data to identify cost drivers.

**Consultation question**

- Do you support IHPA's proposal to continue to block fund residential mental health care in future years?



# 10. Bundled pricing for maternity care

## 10.1 Overview

IHPA prices public hospital services based on the average cost of discrete episodes of care within different care settings. For example, a hip replacement may involve non-admitted care, acute inpatient care and subacute rehabilitation, and each of these services would be separately priced. This approach provides a strong incentive for clinicians and hospital managers to examine the underlying cost structures of each service, whilst ensuring that care can be provided at the right time and at a level of quality that aligns with current standards of care.

IHPA recognises that there is the potential to better align pricing incentives across settings for care pathways for some hospital services to provide greater room to develop innovative models of care, without being deterred by pricing models based around traditional care settings. Bundled pricing is one way of doing this, and involves determining a single price which reflects the cost of care for treatment of a condition across multiple episodes and settings. This could include all of a patient's admitted and non-admitted care for a particular condition.

There is some emerging evidence overseas that bundled payment schemes are associated with improved patient outcomes and efficiencies for the health system.<sup>1,2,3</sup>

In the *Pricing Framework Consultation Paper 2015-16* IHPA also canvassed views on developing a bundled pricing approach for specific treatment pathways which span care settings.

Since this time IHPA has been developing a bundled pricing approach for maternity care. Stakeholder views are sought on the approach and the potential for future implementation.

In the process of doing this work, IHPA has identified a number of issues which need to be overcome to enable implementation of any bundled pricing approach, including for maternity care. Until these issues are resolved a bundled pricing for maternity care cannot progressed further.

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<sup>1</sup> Agency for Healthcare Research and Quality, 2012, [Closing the Quality Gap: Revisiting the State of the Science Series: Bundled Payment: Effects on Health Care Spending and Quality](#).

<sup>2</sup> Centers for Medicare & Medicaid Services 2016, [Bundled Payments for Care Improvement \(BPCI\) Initiative: General Information](#); Baltimore, United States of America, Centers for Medicare & Medicaid Services.

<sup>3</sup> Bertko J & Effros R 2010, '[Analysis of Bundled Payments](#)', *Technical Report*, RAND Corporation.

## 10.2 Profile of maternity care

### 10.2.1 Identifying service delivery patterns

A precondition to introducing a bundled pricing approach is the ability to map the service delivery patterns across multiple episodes and settings of care. Maternity care spans the non-admitted and admitted settings for nearly all patients, with some also requiring emergency care.

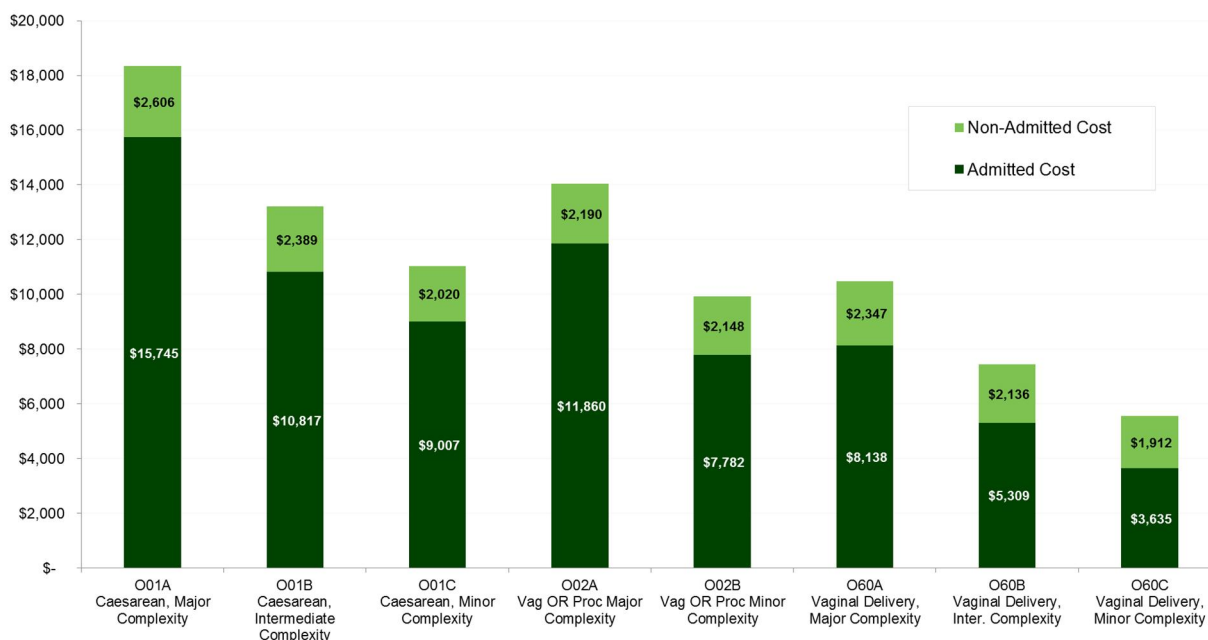
National data sets held by IHPA do not contain unique patient identifiers which would enable the service delivery patterns of maternity patients to be reliably traced across episodes and settings. Therefore, to undertake analysis to inform a bundled pricing approach, IHPA developed a probabilistic method for matching patients to the services. IHPA applied approach to 2013-14 and 2014-15 public hospital activity and cost data, creating a rich source of information for analytical purposes. As a result, further analysis was then able to undertaken looking at the number and type of antenatal and postnatal clinic visits, the type and complexity of the birth and other patient characteristics and comorbidities.

### 10.2.2 Service delivery to maternity patients

The average number of non-admitted service events per patient during the course of a pregnancy was nine antenatal and three postnatal service events. This is broadly consistent with the [National Antenatal Care Guidelines](#). Grouping patients based on the DRG for the birth admission demonstrated that the number of service events is relatively similar across DRG groups (with a difference of 2 service events between the least and most complex patients), but that there is a spread in the number of service events within each DRG group.

The average cost of a maternity patient's admitted stay for birth was \$6,465 and for antenatal and postnatal care was \$2,104. The costs of the admitted stay for birth vary significantly, with a 333 per cent difference between patients in the least and most costly DRGs. Differences in non-admitted costs were comparatively smaller, with a 36 per cent difference between the least and most complex DRGs and patients generally accessed the same services in similar volumes. **Figure 1** shows the difference in costs by DRG.

Figure 1: Average costs of maternity care, by DRG



The analysis found that a maternity patient's DRG for birth is the most reliable predictor of their admitted and non-admitted costs available. Other significant factors include advanced maternal age (over 40 years of age) and additional diagnoses assigned during the birth episode including gestational or pre-existing diabetes, multiple births, known or suspected foetal problems and anaemia.

### 10.3 Models considered

The advisory group has considered the potential scope of patients, services and stages of care to be included in a bundled price for maternity care, as well as an approach to determining the price itself and any risk adjustment.

#### 10.3.1 Scope of care

**Settings of care:** The advisory group recommended limiting the scope to the routine settings of care which include the admitted birth and non-admitted care, whilst excluding services which most patients do not receive, such as emergency department presentations and admissions in the antenatal period, or readmissions in the postpartum period. This mitigates the risk of hospitals being financially penalised for providing emergency care or additional admitted care.

**Stages of care:** The advisory group recommended including all stages of care (antenatal, intrapartum and postnatal) as it recognises their interrelationship, provides a transparent overall cost of care, and offers the greatest opportunity for service redesign.

**Exclusions:** In addition to emergency and additional admitted care, some types of care should be excluded from the bundle on the basis that they represent additional irregular costs. This would not preclude patients from receiving a bundled price, but would mean that additional payments for services which are excluded could be made on top using existing ABF price weights. For example, patients who require services under the Maternal Fetal Medicine non-admitted class were generally of much higher cost and therefore service events within this class could be priced using an ABF approach. In contrast, patients with a very high non-admitted service volume may be indicative of very complex care and these patients could be excluded from a bundled pricing approach and continue to be funded using ABF.

Non-admitted general practitioner, private obstetrician and private midwife services are out of scope for ABF. However, some hospitals have 'shared care' arrangements for antenatal care which means that some antenatal care is delivered by these providers. There is no ability to definitively identify shared care in national hospital data sets, so these patients appear to have a small number of non-admitted service events. The advisory group argued that these patients should be included for the portion of their care delivered by public hospitals. To date IHPA has been unable to resolve this issue, as robust data on shared care is not available in national data sets.

The advisory group did not reach a decision on whether separate newborn care should be included or excluded from the scope of the bundled pricing approach. Members agreed that admitted care for newborns should be excluded to ensure that it remains adequately funded.

#### 10.3.2 Pricing the bundle

The advisory group considered the prices for admitted and non-admitted care separately, with the two prices to be bundled together to form an overall bundled price.

**Admitted component:** IHPA uses DRGs to price admitted maternity care, which are based on empirical data and clinical input and reflect differences in cost.

In some countries, including England, different approaches have been used to price maternity episodes and IHPA has examined whether patients can be bundled on the basis of other patient factors.<sup>4</sup> Moving away from using the DRG to differentiate between patient complexity levels would require clinical and jurisdictional consultation, data analysis and national collection of new data items. IHPA did not identify other patients factors with comparable predictive power and the advisory group considered that pricing the admitted component of the maternity pathway using the existing DRG price weights for births was the most appropriate in the absence of alternatives.

**Non-admitted component:** The advisory group considered two broad options for this component. The first is to set a single price for all patients reflective of the average cost of non-admitted care. This would be appended to the birth DRG resulting in eight bundled prices comprising of a variable cost admitted component and a fixed cost non-admitted component.

Alternatively, separate prices could be set for the non-admitted component based on variations in the cost of non-admitted care using the patient's birth DRG to distinguish between patient groups. This would result in eight bundled prices comprising of variable cost components for both admitted and non-admitted care based on the patient's DRG.

The advisory group recommended additional risk adjustment for any bundled pricing model. After accounting for DRG-specific bundles, patients with diabetes and multiple births have materially higher non-admitted costs and additional price loadings could be included for these patients.

## 10.4 Proposed bundled pricing model for maternity care

After a substantive review of public hospital data and consideration of design options, the advisory group has endorsed an initial bundled pricing model for maternity care which could be developed, subject to the implementation barriers identified below.

Most maternity patients would be included, as identified using the birth-related DRGs. Newborn care would continue to be priced under ABF. As discussed above, some exclusions could be applied for some patients to ensure that hospitals are not financially penalised for providing additional care.

The admitted stay for birth and routine non-admitted antenatal and postnatal services to maternity patients would be included in the scope of the bundled pricing approach. Routine antenatal and postnatal services include midwifery (Tier 2 class 40.28) and obstetric (20.40, 20.53) services. Services which are accessed by many maternity patients and could be included in the scope of the approach include endocrinology (20.34 and 40.46), physiotherapy (40.09) and social work (40.11). Other services would continue to be priced under ABF.

In the first instance, the admitted portion of the bundled pricing approach would be determined using DRG price weights, which would be appended to the overall price.

Separate bundled prices for non-admitted antenatal and postnatal care would be determined by patient group (grouped by their DRG for birth). Loadings would also be applied for high cost patients, such as those with diabetes or who have multiple births.

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<sup>4</sup> Monitor & National Health Service England 2016, [Annex B2: Technical guidance for currencies with national prices](#), London, England, National Health Service England.

## 10.5 Barriers to implementation

In developing a bundled pricing approach for maternity care, the advisory group have identified significant barriers to implementation of a bundled pricing model nationally. These issues are not limited to the maternity sector, but reflect wider limitations in the completeness, accuracy and access to health system data. The barriers to implementation which have been identified include a lack of unique patient identifiers which span settings and episodes to enable bundling; significant variation in models of care, including treatment of patients across primary, private and hospital care; and limitations in patient-level information in the Tier 2 Non-Admitted Services classification.

IHPA considers that strategies to address these issues will require time to develop and consult on, which precludes the introduction of a bundled pricing approach for maternity care in 2018-19.

## 10.6 Preconditions to bundled pricing

IHPA and the advisory group have identified a range of preconditions to introducing a bundled pricing approach within the Australian public hospital financing context. It is proposed that these preconditions be used as an initial test prior to the development of a potential bundled pricing approach for any area in the future. These preconditions are:

- **Single Patient Identifier** which would allow for the accurate identification of service delivery to patients and which underpins implementation of a robust bundled pricing approach. Unique patient identifiers are required to include all services in a bundled pricing approach, to reconcile activity for payment purposes, to account for service delivery across hospital and financial years and to identify where patients leave the pathway. Until such time as the [Individual Healthcare Identifier](#) is included in national data sets, bundling is not feasible at a national level. It is noted that Clause 154 of the Addendum to the Agreement states that new bilateral agreements on coordinate care reforms may include arrangements for sharing of patient information between Australian governments to support a better understanding of patients and service utilisation.
- **Clear benefit to patients** should be identified prior to implementation of a bundled pricing model, given evidence of significant differences in models of care across hospitals and jurisdictions. This requires substantial clinical consultation to understand the impact which a price signal based on the average cost of care would have on hospital managers and whether this enables innovative models of patient care rather than rationing of services.
- **Clear benefit to the health system** should be identified and must outweigh the data burden.
- **Strong clinical and stakeholder support** has been identified overseas as a key component of the introduction of value-based healthcare measures such as bundled pricing. The consultation should be sustained over time and cover all interested parties includes government agencies, clinicians, consumers and peak bodies.

## 10.7 Next steps

IHPA does not propose to introduce a bundled pricing approach for maternity care in 2018-19. IHPA will work with the advisory group to develop a report for the Pricing Authority on the proposed approach for bundled pricing for maternity care, modelling on its expected impact, the preconditions to bundled pricing in a greater level of detail, as well as what the next steps should be for considering innovative new pricing approaches in the future including bundled pricing for other conditions. It is intended that the report will be published in late 2017.

### **Consultation questions**

- Do you support the proposed bundled pricing model for maternity care?
- Do you agree with IHPA's assessment of the preconditions to bundled pricing?
- Do you support investigation of whether the Individual Healthcare Identifier or another unique patient identifier could be included in IHPA's national data sets?



# 11. Innovative funding models

## 11.1 Overview

IHPA recognises that service delivery models are not static and that innovative models of care offer the potential to provide more effective health services for patients. The Pricing Guidelines outline the policy objectives to guide IHPA's work, which includes fostering clinical innovation whereby "the pricing of public hospital services should respond in a timely way to introduction of evidence-based, effective new technology and innovations in the models of care that improve patient outcomes". This is also recognised in the National Health Reform Agreement at Clause A62 which states that:

*This Agreement does not preclude exploration and trial of new and innovative approaches to public hospital funding on a limited basis, to improve efficiency and health outcomes. Under the exploration and trial, a State would need to notify the Commonwealth in advance and continue to acquit and report Commonwealth funding on an ABF or a block funded basis as appropriate, as provided for in this Agreement. The outcomes would be provided to IHPA and discussed between the Standing Council on Health.*

The Addendum to the Agreement expands on this principle with a shared commitment by Australian governments to develop and implement reforms to improve health outcomes for patients and decrease potentially avoidable demand for public hospital services. Under Clauses I51 to I53, Australian governments agree to introduce coordinate care reforms for patients with chronic and complex conditions and finalise bilateral agreements setting out these activities by 1 July 2017. These agreements will form the foundation for the development of a joint national approach to coordinated care in the future.

## 11.2 Evolution of national hospital funding models

The introduction of a national ABF approach for public hospital services as part of the National Health Reform Agreement in 2011 represents an important step in efforts to improve transparency, sustainability and technical efficiency in hospital funding.

Internationally, ABF is widely considered a more efficient way to fund hospitals than block funding which lacks transparency and does not drive technical efficiency to the same degree as ABF. However ABF is not free from difficulties including the primary focus being on the volume of services provided by public hospitals (outputs) and not the value of those services (outcomes).

One of the major benefits of the implementation of ABF nationally has been the significant work on national approaches to classification, counting and costing of activity performed in Australian public hospitals. These building blocks for the national implementation of ABF have provided nationally consistent and comparable data sets which are critical to consideration of any potential new funding approaches including the pricing and funding framework for safety and quality outlined in Chapter 12, as well as bundled payments or other value based payment systems.

IHPA recognises the challenge of aligning incentives in the funding and pricing models so as not to impede the broader policy objectives. IHPA is therefore considering how the national



ABF approach accommodates new and innovative approaches to public hospital funding which are being implemented by some jurisdictions.

### **11.3 Promoting integration of services for chronic disease management**

Some state and territory governments are developing new funding models for some patient groups to drive the adoption of patient-centred models of care. In particular, funding models are being considered for patients with chronic disease due to their frequency of admission to hospital and evidence that they would benefit from more integrated health service delivery which could allow for their treatment in a community setting.

Some emerging funding models appear to be potentially inconsistent with an ABF approach. For example, capitation funding provides a single risk-adjusted prospective funding amount per patient for a fixed period of time in contrast with ABF that ties funding to the volume and type of services provided.

Under these funding models, the amount of funding per patient usually reflects the existing cost of delivering hospital services to these patients and allows health services the flexibility to use the funding in primary and community services to reduce total per patient expenditure over time.

IHPA notes that such approaches might offer improved efficiency and health outcomes for patients as health services will be incentivised to more routinely identify 'at risk' patients and deliver a more active management approach which reduces future use of admitted services.

Victoria and Queensland have suggested that IHPA consider block funding at the national level for patients who are enrolled in innovative funding programs at the jurisdictional level. For example, Victoria has requested that IHPA block fund patients participating in its 'Healthlinks' scheme which is a capitation funding model for patients with chronic disease with the aim of reducing avoidable readmissions and presentations to emergency departments.

These proposals aim to provide hospitals with funding certainty regardless of whether the volume of hospital activity changes over years. The consistent funding level means that hospitals have the financial flexibility to invest in models of care that may better manage chronic conditions and reduce readmissions and emergency presentations for these patients.

These funding models would also support the introduction of coordinated care reforms for patients with chronic and complex disease as agreed in the Addendum to the Agreement.

IHPA has identified a variety of implementation issues that require further consideration prior to approving any proposals to block fund patients enrolled in these new funding models:

- Patients enrolled in the funding programs and the services which they access will need to be identified in the data to prevent double payment under ABF and block funding;
- Consideration will need to be given as to whether the services provided within the funding program meet the definition of an in-scope public hospital service and are therefore eligible or not to receive Commonwealth funding under the Agreement.

IHPA will consider these and other issues in consultation with jurisdictions and informed by feedback on the *Pricing Framework Consultation Paper 2018-19*. A final decision may be required by the COAG Health Council.

## 11.4 Value-based healthcare

Healthcare systems around the world are facing rising costs and growing demand for services due to ageing populations, the increased prevalence of chronic disease, introduction of new health technologies and rising expectations for care.<sup>5</sup> There has also been increased attention on issues of inequitable access and variations in the safety and quality of services.

As such, policy makers are considering how to refocus health financing arrangements away from payments based on the type and volume of services delivered and towards payments which are based on the value of care which is actually provided to patients ('value-based healthcare'). New funding approaches have the potential to provide system and hospital managers the financial flexibility to consider whether there are more effective ways to deliver care to patients, at less overall cost to the health system and to a higher level of quality.

While the adoption of new funding models has been gradual, there has been significant work at the national level (led by the Australian Commission on Safety and Quality in Health Care), jurisdictional level and hospital level (led by clinicians) to develop flexible, evidence-based patient-focused models of value-based care.

Value-based approaches are characterised by:<sup>6</sup>

- **Systematic measurement of health outcomes:** To evaluate care programs, safety and quality metrics are developed which are important to clinicians and also patients, which are called 'Patient Reported Outcome Measures'. The [International Consortium for Health Outcomes Measurement](#) is a leader in developing these metrics for health conditions and they have been adopted by a growing network of providers worldwide. The development of patient-reported measures is being considered at the national level by the [Australian Commission on Safety and Quality in Health Care](#) and at the jurisdictional level by health departments, for example by the [NSW Agency for Clinical Innovation](#). The total cost of delivering care to meet these outcomes across the patient journey is also identified.
- **Focusing on distinct population segments:** Value-based care is focused on the specific health needs of clearly defined population segments. Focusing on patient groups allows for meaningful comparisons regarding health outcomes and variation in care. Programs typically also include a risk adjustment approach to account for differences in the risk and complexity profile of patients within the patient group.
- **Segment specific interventions:** Value-based initiatives involve the development of specific interventions which have a strong evidence-base for meeting the health outcomes identified by clinicians and patients with a focus on multidisciplinary, coordinated preventative care and community based service provision.

There are challenges in implementing value-based healthcare approaches. One of the challenges is to ensure that public hospital payment systems enable rather than stymie innovation in service delivery to support better outcomes for patients. Another challenge is to track the care delivered to patients across settings and providers which may require investment in new information technology platforms and willingness for information sharing.

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<sup>5</sup> Deloitte 2016 Global health care outlook, [Battling costs while improving care](#).

<sup>6</sup> World Economic Forum & Boston Consulting Group, April 2017, [Value in Healthcare Laying the Foundation for Health System Transformation](#)

While IHPA has a prescribed role of implementing the national ABF system, it will maintain a watching brief on developments in the value-based health care space consistent with functions prescribed under the *National Health Reform Act 2011* to provide advice on hospital funding models to all Australian governments.

### **Consultation questions**

- What issues should IHPA consider when examining innovative funding model proposals from jurisdictions?
- Should IHPA consider new models of value-based care, and what foundations are needed to facilitate this?

# 12. Pricing and funding for safety and quality

This section outlines progress with the implementation of national reforms to incorporate safety and quality into the pricing and funding of public hospital services in Australia.

## 12.1 The rationale for pricing and funding for safety and quality

Recent reforms to the health system, enacted by Commonwealth, state and territory governments, are designed to improve patient outcomes in the public health system. The commitment by Australian governments to safety and quality follows a four-year program of collaborative work between IHPA and the Commission to consider the incorporation of safety and quality measures into the determination of the NEP.

Pricing and funding approaches are one element of a comprehensive strategy to improve safety and quality in health care. Pricing and funding approaches should complement other existing strategies to improve safety and quality under the leadership of the Commission and with the active participation of many other groups including clinical colleges, clinicians, state governments and health services.

## 12.2 Addendum to the National Health Reform Agreement

In April 2016 all Australian governments signed a Heads of Agreement that committed to improve Australians' health outcomes and decrease avoidable demand for public hospital services through a series of reforms including the development and implementation of funding and pricing approaches for safety and quality. The Heads of Agreement requires governments, in conjunction with IHPA and the Commission, to undertake the following work:

- The development of 'a comprehensive and risk-adjusted model to integrate quality and safety into hospital pricing and funding' for specified adverse events and 'a set of agreed hospital acquired conditions'; and
- The development of 'a comprehensive and risk-adjusted strategy and funding model that will adjust the funding to hospitals that exceed a predetermined avoidable readmission rate for agreed conditions'.

All Australian governments have signed the Addendum to the National Health Reform agreement which gives effect to these changes, effective from 1 July 2017.

## 12.3 Ministerial Directions

In August 2016, the Commonwealth Minister for Health and Aged Care, acting under Section 226(1) of the *National Health Reform Act 2011* (the Act) directed IHPA to advise on an option or options for a comprehensive and risk adjusted model to determine how funding and pricing could be used to improve patient outcomes across three key areas: sentinel events, hospital acquired complications (HACs) and avoidable hospital readmissions.

In close consultation with stakeholders, IHPA undertook a considerable program of work to formulate and review a series of funding proposals relating to these key areas of safety and quality. Options for pricing and funding for safety and quality were included in the *Pricing Framework Consultation Paper 2017-18*.

Informed by stakeholder feedback, IHPA provided advice to the COAG Health Council in November 2016 on options for the integration of safety and quality into hospital pricing and funding for consideration.

IHPA proposed an approach for sentinel events, HACs and an initial approach on avoidable readmissions. This advice also outlined a program of work to develop a more robust approach to HACs and avoidable readmissions in future years.

IHPA's decisions on these matters were detailed in the *Pricing Framework 2017-18*:

1. No funding for a public hospital episode including a sentinel event which occurs on or after 1 July 2017, applying to all relevant episodes of care in all hospitals;
2. Reduced funding level for all hospital acquired complications, to reflect the additional cost of a hospital admission with a hospital acquired complication; and
3. Undertake further public consultation to inform a future pricing and funding approach in relation to avoidable hospital readmissions, based on a set of definitions to be developed by the Australian Commission on Safety and Quality in Health Care.

## 12.4 Sentinel events

Health ministers agreed on national set of eight sentinel events in 2002. Sentinel events are defined as "...adverse events that occur because of hospital system and process deficiencies, and which result in the death of, or serious harm to, a patient". The establishment of sentinel event reporting arrangements aimed to facilitate a safe environment for patients by reducing the frequency of these events.

As detailed in the *Pricing Framework 2017-18*, no funding will be provided for a public hospital episode including a sentinel event which occurs on or after 1 July 2017, applying to all relevant episodes of care (being admitted and other episodes) in hospitals where the services are funded on an activity basis and hospitals where services are block funded.

In NEP18, IHPA will maintain an approach of assigning zero NWAU for episodes with a sentinel event. As sentinel events are not currently reported in national data sets, IHPA will work with jurisdictions on the identification of sentinel event episodes. Funding adjustments for sentinel events will be based on data from the 2014-15 financial year.

### 12.4.1 Review of the Sentinel Events List

The Commission is currently undertaking a [review](#) of the list of sentinel events. Clinical advice will be used to refine the list by ensuring each sentinel event meets the definition and criteria of a sentinel event. Public consultation on the review closed in June 2017. Once this review is complete, IHPA will consider how to implement any changes to the sentinel events list into the national pricing and funding models.

## 12.5 Hospital acquired complications

Hospital acquired complications (HACs) are complications which occur during a hospital stay and for which clinical risk mitigation strategies may reduce (but not necessarily eliminate) the risk of that complication occurring. A set of HACs was developed by a Joint Working Party of the Commission and IHPA and are shown in **Table 1**. The Commission is responsible for the

ongoing curation of this list. Information on the definition and list of HACs can be on the Commission's [website](#).

Table 1: List of nationally agreed HACs

No.	Complication
1	Pressure injury
2	Falls resulting in fracture or other intracranial injury
3	Healthcare associated infection
4	Surgical complications requiring unplanned return to theatre
5	Unplanned intensive care unit admission*
6	Respiratory complications
7	Venous thromboembolism
8	Renal failure
9	Gastrointestinal bleeding
10	Medication complications
11	Delirium
12	Persistent incontinence
13	Malnutrition
14	Cardiac complications
15	Third and fourth degree perineal laceration during delivery
16	Neonatal birth trauma

Note: \* Data is not currently available at the national level on unplanned admissions to intensive care.

IHPA outlined the approaches to the funding and pricing of HACs in the *Pricing Framework Consultation Paper 2017-18*.

The approach approved by IHPA is an episode level approach which is implemented at the patient level. Funding is reduced for any episode of admitted acute care where a HAC occurs. The reduction in funding reflects the incremental cost of the HAC – in other words the additional costs of providing hospital care which are attributable to the occurrence of the HAC.

The *Pricing Framework 2017-18* also foreshadowed that IHPA would further refine the risk adjustment methodology prior to shadow funding commencing from 1 July 2017.

Funding approaches have been developed for each HAC with the exception of third and fourth degree perineal lacerations during delivery, neonatal birth trauma and unplanned intensive care unit admission.

It is not currently possible to identify unplanned admissions to intensive care in the national datasets and therefore no funding adjustment is proposed for this HAC.

Third and fourth degree perineal lacerations during delivery and neonatal birth trauma can be identified in datasets however, due to the small cohort of patients to which the HACs apply IHPA was unable to develop a risk adjustment models with sufficient explanatory power and therefore could not produce reliable and robust adjustments required to warrant their use. In

the absence of required data or a suitable risk adjustment methodology, IHPA has determined that these HACs be excluded from any funding adjustments for NEP18.

### Incremental cost of a HAC as the basis for funding adjustments

The presence of a HAC increases the complexity of an episode of care or the length of stay in hospital. This, in turn, drives an increase in the cost of care for that episode. The funding approach recognises this by explicitly linking funding adjustments to the incremental cost of a HAC.

**Table 2** shows the incremental cost of each HAC, which form the basis for the funding adjustment. For example, the presence of a renal failure HAC adds, on average, an additional 27.2 per cent to the cost of an episode while the presence of a persistent incontinence HAC adds 2.3 per cent to the total cost of an episode.

Table 2: Incremental cost adjustments by HAC group

Complication	Adjustment based on incremental cost
<b>All HACs</b>	8.5%
<b>1</b> Pressure Injury	13.9%
<b>2</b> Falls resulting in fracture or other intracranial injury	6.7%
<b>3</b> Healthcare associated infection	8.6%
<b>4</b> Surgical complications requiring unplanned return to theatre	10.5%
<b>5</b> Unplanned intensive care unit admission	n/a
<b>6</b> Respiratory complications	15.8%
<b>7</b> Venous thromboembolism	12.3%
<b>8</b> Renal failure	21.4%
<b>9</b> Gastrointestinal bleeding	9.7%
<b>10</b> Medication complications	8.1%
<b>11</b> Delirium	9.7%
<b>12</b> Persistent incontinence	2.2%
<b>13</b> Malnutrition	7.3%
<b>14</b> Cardiac complications	11.2%
<b>15</b> Third and fourth degree perineal laceration during delivery	23.2%
<b>16</b> Neonatal birth trauma	10.8%

#### 12.5.1 Risk adjustment model

A patient's likelihood of developing a HAC during the course of care is determined by a combination of patient characteristics, such as patient age and primary diagnosis, as well as the nature of the clinical care they receive.

A funding adjustment based solely on the incremental cost of the HAC would unduly penalise hospitals treating high complexity patients. Risk adjustment takes account of the increased predisposition of some patients to experiencing a HAC during their hospital stay and adjusts the reduction in funding accordingly. The HAC pricing model and risk adjustment methodology is outlined in detail in the [technical specifications](#).



The risk adjustment methodology has two key elements:

1. A risk adjustment model for each HAC which identifies whether a patient is at a low, medium or high risk of acquiring a HAC based on patient-level risk factors identifiable in the Admitted Patient Care National Minimum Data Set; and
2. An approach for dampening the effect of the incremental cost funding adjustment, based on whether a patient is at a low, medium or high risk of acquiring a HAC.

### Identification of risk factors

A range of risk factors were considered to assess a patient's risk profile, and for inclusion in the risk adjustment model based on advice from jurisdictions, the Commission, IHPA's Clinical Advisory Committee and responses to the *Pricing Framework Consultation Paper 2016-17*. These included patient characteristics (e.g. age and socioeconomic status), the hospital stay (e.g. admission status, major diagnostic category), morbidity (e.g. Charlson score, requirement for mechanical ventilation) and significant comorbidities (e.g. cardiovascular disease, stroke).

This list was then refined through a combination of statistical analysis and clinical review to test the relevance and predictive value of each risk factor in relation to HACs. The following risk factors are included in the proposed risk adjustment model:

- Patient age;
- Gender;
- Diagnosis related group type (medical, surgical, other);
- Major diagnostic category;
- Charlson score<sup>7</sup>;
- Intensive care unit status;
- Admission status (whether admission occurred on an emergency basis); and
- Transfer status (whether the patient was transferred from another hospital).

The predictive powers of the identified risk factors vary depending on the HAC under consideration. Because of this, a separate risk model has been developed for each HAC. For example, gender is not a relevant risk factor in relation to the prevalence of pressure injuries, surgical complications requiring unplanned return to theatre, malnutrition and cardiac complications and has therefore been removed from the risk adjustment models for these complications. **Table 3** contains the risk factors included for risk adjustment for each HAC.

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<sup>7</sup> The Charlson score is a comorbidity index that predicts the one year mortality for a patient who may have a range of comorbid conditions.

Table 3: Final risk factors adopted for each HAC group

Risk Factors	01. Pressure injury	02. Falls resulting in fracture or other intracranial injury	03. Healthcare associated infection	04. Surgical complications requiring unplanned return to theatre	06. Respiratory complications	07. Venous thromboembolism	08. Renal failure	09. Gastrointestinal bleeding	10. Medication complications	11. Delirium	12. Persistent incontinence	13. Malnutrition	14. Cardiac complications
Patient age	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gender	✗	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗
DRG type	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Major diagnostic category	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Charlson score	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Intensive care unit status	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Admission status	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Transfer status	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓

### Funding adjustment

Each patient episode is assigned a ‘Low’, ‘Medium’ or ‘High’ complexity score derived from the identified risk factors. This complexity score is used to adjust the funding reduction for an episode containing a HAC on the basis of the risk of that patient acquiring a HAC. Box 3 provides an illustrative example of the application of risk adjustment to a hospital episode with hospital acquired fall.

In the case where a HAC is experienced by a patient considered to be of low risk then funding for that episode is reduced by the full incremental cost of the HAC. In the case where a patient is determined to be of high risk of experiencing a HAC, then the funding for that episode is reduced by a proportion of the incremental cost of the HAC.

### Box 3: Illustrative examples of risk adjustment

#### **Case one: falls resulting in fracture or intracranial injury – low risk**

A 27 year old female patient was a booked admission to day surgery for a cholecystectomy. She had no comorbid conditions. Following the surgery, she slipped and fell in the ward, hitting her head on the floor. A CT scan showed a subdural haematoma. The patient was transferred to the tertiary hospital for further treatment and surgery.

**Complication:** Fall resulting in intracranial injury

**Risk category:** Low

**Funding adjustment:** Funding for the episode is reduced by the incremental cost of falls resulting in fracture or intracranial complications (6.7 per cent), adjusted for the risk profile of the patient (low risk). An episode in the 'low' risk category for this HAC is subject to an adjustment of the full incremental cost of this HAC. This would result in a negative funding adjustment equivalent to 6.7 per cent of the funding for this episode of care.

#### **Case two: falls resulting in fracture or intracranial injury – high risk**

The patient is an 87 year old female who was admitted to hospital via the emergency department with a principal diagnosis of stroke. The patient has a background of dementia, cirrhosis of the liver, chronic renal failure, chronic obstructive pulmonary disease and type 2 diabetes managed with insulin. The patient is an ex drinker and smoker.

The patient was treated conservatively. On the second day of her admission she fell while trying to take herself to the bathroom unsupervised, which resulted in a fractured neck of femur. A total hip replacement was performed. The patient was discharged to her residential aged care accommodation 25 days following admission.

**Complication:** Fall resulting in fracture

**Risk category:** High

**Funding adjustment:** Funding for the episode is reduced by the incremental cost of falls resulting in fracture or intracranial complications (6.7 per cent), adjusted for the risk profile of the patient (high risk). An episode in the 'high' risk category for this HAC is subject to an adjustment of 64.1 per cent of the full incremental cost of this HAC. This would result in a negative funding adjustment equivalent to 4.3 per cent of the funding for this episode of care.

### Application of funding adjustment

The funding model is based on an episode level funding adjustment based. This is consistent with the COAG Health Council's intention that funding adjustments facilitate improvement in patient outcomes and is implementable at the local level.

The funding adjustment is ultimately applied as a percentage reduction to the NWAU for an episode where a HAC is present. The episode level adjustments are then aggregated and applied at the jurisdictional level.

The estimated national funding impact is estimated at approximately \$280 million. Under the terms of the Addendum, these adjustments will be subject to back-casting, and as such, will have only an incremental impact on total Commonwealth funding growth.

### Consultation question

- Do you support the proposed risk adjustment model for HACs? Are there other factors that IHPA should assess for inclusion in the model?
- Do you agree that HACs third and fourth degree perineal lacerations during delivery and neonatal birth trauma be excluded from any funding adjustment?

### 12.5.2 Shadow implementation

The February 2017 Ministerial Direction to IHPA states that the funding approach for HACs is to be shadowed for at least 12 months prior to implementation. The purpose of this shadow year is to improve data quality and identify any significant issues that need to be addressed prior to implementation.

IHPA will submit a report to the COAG Health Council by 30 November 2017 modelling the impact on public hospital funding of the proposed HAC funding model. The report will summarise the impact of the model at the Local Hospital Network level, examine differences by hospital peer groups, highlight key findings of shadow implementation and make recommendations regarding the implementation of the funding model for HACs in 2018-19.

### 12.6 Avoidable readmissions

Readmission rates are often used as a measure of performance and sometimes as a quality benchmark for health systems and are increasingly used to monitoring quality and safety within clinical systems. Readmissions represent costly and, often times, unnecessary episodes of care to the public health system.

The 16 February 2017 Ministerial Direction requires that IHPA 'undertake further public consultation to inform a future pricing and funding approach in relation to avoidable hospital readmissions, based on a set of definitions to be developed by the Commission.

The Direction states that, in reference to provisions relating to avoidable hospital readmissions, IHPA is to have regard to the intention of the COAG Health Council for:

- the Commission to develop a set of clinical conditions that can be considered avoidable hospital readmissions, including identifying suitable condition-specific timeframes for each of the identified conditions;
- IHPA to provide advice on the feasibility and financial implications of potential future pricing or funding adjustments for avoidable readmissions in accordance with the list of clinical conditions; and
- the development of pricing and funding adjustments to target avoidable hospital readmissions which arise from complications of the management of the original condition that was the reason for the patients original hospital stay.

#### 12.6.1 Policy context of pricing and funding models to reduce avoidable hospital readmissions

Readmissions rates are established as a quality indicator throughout Australian health system. In 2009 Australian Health Ministers agreed that hospitals should routinely monitor a set of 'hospital-based outcome indicators' including one indicator for unplanned or unexpected hospital readmission of patients discharged following management of acute myocardial infarction, knee replacement, hip replacement, or paediatric tonsillectomy and adenoidectomy. Readmission rates for these conditions, among others, are commonly used by jurisdictions as key performance indicators in service delivery agreements with Local Hospital Networks.

Non-financial methods have been adopted internationally to reduce rates of avoidable readmissions. A common policy measure is to mandate public reporting of readmission rates by hospitals and health service providers. For example, the Better Outcomes by Optimising Safe Transitions project, implemented in the United States, establishes a range of clinical and procedural measures including medication reconciliation forms, discharge patient education and continuity checklists to target readmission rates.<sup>8,9</sup> This program has been linked to a modest drop in readmission rates.

Financial adjustments based on readmission rates include the following<sup>10</sup>:

- block grant funding of specified readmission episodes (Denmark);
- no funding for the proportion of readmissions considered to be avoidable, determined during clinical review of the case (England);
- payment for the readmission and index episode are combined (England); and
- a financial penalty for hospitals that exceed the risk adjusted national mean rate of readmissions (United States).

### Consultation question

- What pricing and funding models should be considered by IHPA for avoidable hospital readmissions?

## 12.6.2 List of avoidable hospital readmissions

In early 2017, the Australian Health Ministers Advisory Council requested the Commission to develop an approach to defining a list of avoidable hospital readmissions. The Commission has commenced this work and is finalising an agreed list of clinical conditions that can be considered avoidable hospital readmissions. Once this work has been endorsed by AHMAC, IHPA will begin detailed work to develop pricing or funding approaches for implementation, including public consultation on potential approaches.

## 12.6.3 Criteria for assessing pricing and funding options

As part of its commitment to transparency, IHPA has developed a set of Pricing Guidelines (Chapter 2) that are used to explain key decisions about the design and implementation of the Pricing Framework. These Pricing Guidelines will also apply in proposals relating to pricing and funding adjustments for avoidable hospital readmissions.

In the *Pricing Framework 2017-18* IHPA defined a number of criteria with which to assess pricing and funding options for HACs. These criteria provided a framework through which to

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<sup>8</sup> James, Julia. Medicare Hospital Readmissions Reduction Program. Health Policy Brief. November 12, 2013.

<sup>9</sup> Boccuti, Cristina and Giselle Casillas. [Aiming for Fewer Hospital U-turns: The Medicare Hospital Readmission Reduction Program](#), May 10, 2017.

<sup>10</sup> Søren Rud Kristensena,b, Mickael Bechb, Wilm Quentin, [A Roadmap for Comparing Readmission Policies](#) with Application to Denmark, England, Germany and the United States. Health Policy 119 (2015) 264–273.

assess the merits of each pricing or funding proposal, and allowed stakeholders to provide targeted feedback regarding proposals.

IHPA will use these criteria again to assess the relative merits of pricing and funding proposals for avoidable hospital readmissions. The assessment criteria are as follows:

1. **Preventability:** Pricing and funding approaches should be based on good evidence of the preventability of the safety and quality measure including taking into account its relative preventability.
2. **Equitable risk adjustment:** Pricing and funding approaches should balance the likelihood that some patients will be at higher risk of being readmitted to hospital while ensuring that all hospitals have ongoing responsibility to mitigate risks, to reduce and manage any negative impacts for all patients and to improve safety and quality systemically.
3. **Proportionality:** Adjustments to the pricing and/or funding of public hospital services should be commensurate with the additional costs incurred as a result of diminished safety and quality.
4. **Transparency:** The design of pricing and funding approaches to safety and quality should be simple and transparent to encourage action at all relevant levels of the health system.
5. **Ease of implementation:** The implementation of pricing and funding approaches should be straightforward, and not result in undue administrative burden on any part of the system (for example, jurisdictions or the Administrator of the National Health Funding Pool).

### Consultation question

- Do you agree with the use of these assessment criteria to evaluate the relative merit of different approaches to pricing and funding adjustments for avoidable hospital readmissions? Are there any other criteria that should be considered?

#### 12.6.4 Consultation on pricing and funding options

Following the finalisation of an agreed list of avoidable hospital readmissions, expected in late 2017, IHPA will begin a detailed program of work to formulate pricing and funding options for avoidable hospital readmissions. This work will culminate in a separate consultation paper, expected to be released in late 2017 and inform future advice to the COAG Health Council.

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