

Independent Hospital Pricing Authority

Pricing Framework for Australian Public Hospital Services 2018-19

November 2017



IHPA

Pricing Framework for Australian Public Hospital Services 2018-19 – November 2017

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The Hon Meegan Fitzharris MLA
Chair, COAG Health Council
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Canberra ACT 2601

Dear Minister

On behalf of the Independent Hospital Pricing Authority (IHPA), I am pleased to present the *Pricing Framework for Australian Public Hospital Services 2018-19*.

The Pricing Framework is the key strategic document underpinning the National Efficient Price (NEP) and National Efficient Cost (NEC) Determinations for the financial year 2018-19. The NEP Determination will be used to calculate Commonwealth payments for in-scope public hospital services that are funded on an activity basis, whilst the NEC Determination covers the services which are block funded.

This is the seventh Pricing Framework issued by IHPA. The nature of the comments received in response to the Consultation Paper on the Pricing Framework for 2018-19 demonstrates that IHPA has developed a clear and stable methodology that guides the annual determination of the NEP and NEC. IHPA will continue to develop and refine its classification systems, counting rules, data, coding and costing standards which underpin the national activity based funding (ABF) system.

In February 2017, the Hon Greg Hunt MP, the Commonwealth Minister for Health, acting under Section 226 of the *National Health Reform Act 2011* directed IHPA to undertake implementation of three recommendations of the COAG Health Council relating to sentinel events, hospital acquired complications (HACs) and avoidable readmissions. IHPA is progressing with the implementation of these pricing and funding reforms, including through implementation of a funding approach for sentinel events from 1 July 2017 and having developed a risk adjustment methodology which will support implementation of a pricing approach for HACs from 1 July 2018.

In the Pricing Framework for 2018-19, IHPA is considering how the national ABF approach accommodates new and innovative approaches to public hospital funding which are being implemented by some jurisdictions. This recognises that service delivery models are not static and that innovative models of care can offer the potential to provide more effective health services for patients.

I would like to affirm IHPA's commitment to transparency and continuous improvement in how it undertakes its delegated functions, grounded in an open and consultative approach to working with the health sector in the implementation of activity based funding for public hospital services.

Yours sincerely



Shane Solomon
Chair
Pricing Authority

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Glossary

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

1. Introduction

The implementation of a national activity based funding system is intended to improve the efficiency and transparency of funding contributions of the Commonwealth, state and territory governments for each Local Hospital Network across Australia.

To achieve this, IHPA is required under the National Health Reform Agreement and the *National Health Reform Act 2011* to determine the National Efficient Price (NEP) to calculate Commonwealth activity based funding payments for in-scope public hospital services and the National Efficient Cost (NEC) covering those services which are block funded.

IHPA released the *Consultation Paper on the Pricing Framework for Australian Public Hospital Services 2018-19* for a 30-day public comment period on 17 July 2017. The *Pricing Framework Consultation Paper* sets out the key issues for consideration in preparation of the *Pricing Framework for Australian Public Hospital Services 2018-19*.

Stakeholder feedback has informed the development of the *Pricing Framework 2018-19* which sets out the policy rationale and decisions regarding IHPA's program of work and the decisions in the NEP and NEC Determinations for 2018-19 (NEP18 and NEC18).

Submissions on the *Pricing Framework Consultation Paper 2018-19* were received from 26 organisations and individuals, including all states and territories and the Commonwealth governments. These submissions are available on the [IHPA website](#).

IHPA has continued 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 work and IHPA's policy decisions are outlined in Chapter 12 of the *Pricing Framework 2018-19*.

The *Pricing Framework 2018-19* also outlines work undertaken to develop a bundled pricing approach for maternity care (Chapter 10) and consideration of innovative funding models (Chapter 11).

The *Pricing Framework* builds on the Pricing Frameworks from previous years ([2012-13](#), [2013-14](#), [2014-15](#), [2015-16](#), [2016-17](#) and [2017-18](#)). For simplicity, where IHPA has reaffirmed a previous principle, the supporting argument has not been restated in this year's paper.

The *Pricing Framework 2018-19* has been released prior to the release of 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.

Feedback received

Jurisdictions and other stakeholders were broadly supportive of the Pricing Guidelines.

IHPA considers that the Pricing Guidelines remain appropriate. For this reason, IHPA has not made any changes to the Pricing Guidelines in 2018-19.

IHPA's decision

IHPA has developed, and will use, a set of Pricing Guidelines (**Box 1**) to guide its decision making where it is required to exercise policy judgement in undertaking its legislated functions. IHPA has not made changes to the Pricing Guidelines for 2018-19.

Next steps and future work

IHPA will continue to actively monitor the impact of the implementation of activity based funding. This will include monitoring changes in the mix, distribution and location of public hospital services, consistent with its responsibilities under Clause A25 of the National Health Reform Agreement. IHPA will continue to work with the Jurisdictional Advisory Committee and the Clinical Advisory Committee to analyse any changes evident in the data.

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 as part of the NEP Determination, 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.
- 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.

Feedback received

Victoria (Vic) encouraged IHPA to exercise flexibility when determining whether a service is in-scope as a public hospital service as its decisions, such as requiring a service to already be operational, can limit opportunities for implementing innovative clinical and funding models.

Queensland (Qld) has continued to advocate for the inclusion of community-based child and adolescent mental health services as an in-scope public hospital service. This proposal was considered in the 2018-19 Annual Review of the General List. IHPA has commissioned work to examine public hospital data and identify whether there is a direct relationship between these patients and services and a public hospital. A decision will be made by March 2018, with regard to the eligibility of these services for 2018-19.

IHPA's decision

IHPA does not propose any changes to the criteria which it uses to determine whether in-scope public hospital services are eligible for Commonwealth funding under the National Health Reform Agreement in 2018-19. Full details of the public hospital services determined to be in-scope for Commonwealth funding will be provided in the NEP18 Determination.

Next steps and future work

The General List policy provides a mechanism for jurisdictions to apply to IHPA for additional services to be included or excluded from the General List. IHPA will continue to consider applications for new services to be added to the General List which determines eligibility for Commonwealth funding under the National Health Reform Agreement.

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; and
- 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.

Whilst a service may meet the criteria specified above, it must also be operational in order to be considered in-scope for the purposes of inclusion on the General List.

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 is currently reviewing this decision as the full scope of the National Disability Insurance Scheme is now 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 (ACHI) Tenth 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 classification version 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.

AR-DRG Version 10

IHPA has commenced development in 2017 on ICD-10-AM Eleventh edition and AR-DRG Version 10 for completion in late 2018. IHPA is developing 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 and ACHI.

IHPA will consider a number of areas for AR-DRG Version 10 and will work with its advisory groups to prioritise the review areas. Areas under consideration include a review of the DRGs for caesarean births to differentiate between emergency and elective deliveries, the grouping of interventions for urinary calculus, the hierarchy of interventions within each major diagnostic category and ensuring the case complexity process remains clinically relevant, stable and up to date. IHPA will also consider areas where pricing adjustments are required to determine whether patient costs could be better accounted for in the classification.

IHPA intends to develop a framework for analysis of the AR-DRG classification to systematically identify areas of the classification which may require refinement. This framework will ensure that development is balanced across the classification rather than only focused on 'high profile' areas.

Phasing out older versions of the AR-DRG classification

Whilst admitted public hospital services are now consistently classified using ICD-10-AM Tenth edition and AR-DRG Version 8, 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 older 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 canvassed in the *Pricing Framework Consultation Paper 2018-19* a proposal to phase out support for older versions of the AR-DRG classification, with communication and sufficient lead time for the private sector. IHPA has proposed to only maintain support for the most current version of AR-DRGs and the previous two versions.

Feedback received

AR-DRG Version 10

Stakeholders were generally supportive of continued refinement to the AR-DRG classification. Detailed feedback and suggestions were received from a number of stakeholders, and these have been considered in the preparation of the AR-DRG Version 10 Work Program.

Phasing out older versions of the AR-DRG classification

The Commonwealth (Cth), NSW, Vic, Qld, Tas, Australian Capital Territory (ACT), Mater Brisbane, the QNMU and Medibank were supportive of phasing out support for older versions of the AR-DRG classification. This would support national consistency and facilitate more feasible comparisons of data across years. WA also gave in-principle support for the proposal.

Vic recommended that the methodology for determining episode complexity be maintained from AR-DRG Version 7 until the complexity methodology from Version 8 has been fully embedded.

SA and ACT advised that they will maintain the two previous AR-DRG versions to provide flexibility in indicator sets, analyse changes across years and identify activity anomalies. WA advised that the previous four DRG versions are retained for cross mapping and to inform local processes.

Qld advised that rapid change in classification versions can hinder longitudinal analysis and a longer time window for groupings to prior versions should be maintained for education and

training and updates to ICT systems. The Queensland Nurses and Midwives Union (QNMU) supported sufficient lead time to train coders.

Qld, Australian Private Hospitals Association (APHA), Private Healthcare Australia (PHA), Catholic Health Australia (CHA), and the Australian Health Service Alliance (AHSA), Medibank and Mater Brisbane cautioned that phasing out support for old versions too quickly could have a negative impact on contractual arrangements in the private sector. The Cth encouraged targeted consultation with the health sector to determine appropriate timeframes.

Stakeholders differed in the proposed lead time for phasing out support for older classification versions. NSW suggested twelve months, Tas suggested two years and WA suggested three to five years. The CHA, AHSA and Mater Brisbane recommended a sunset clause of five years to allow lead time for the private sector to update funding models, contracts and ICT systems. PHA and Medibank recommended a transition to the latest AR-DRG version within 18 months of its availability, excluding current contractual arrangements (which would mean a lead time of three years). The AHSA advised that phasing out AR-DRG Version 4.2 is workable by the end of June 2019 but phasing out Version 5 requires further consultation. The APHA recommended a staged approach where support is withdrawn one version at a time, with a lead time of three years.

The AHSA, PHA and Medibank also suggested that the 'current' AR-DRG version should refer to that which is used in the public and private sectors and has underlying cost data as published in the [National Hospital Cost Data Collection Public and Private Hospital Cost Reports](#). The Cth, AHSA and Medibank considered it a strong case for using recent AR-DRG versions in the private sector cost report as there is insufficient cost data available for contract negotiations.

Given stakeholder reservations regarding the proposal, IHPA intends to undertake further targeted consultation with private sector stakeholders to determine the appropriate lead time for phasing out old AR-DRG versions.

IHPA's decision

IHPA has determined that the ICD-10-AM andACHI 10th edition diagnosis and procedure codes and the Australian Refined Diagnosis Related Groups Version 9 classification will be used for pricing admitted acute services in NEP18.

Next steps and future work

IHPA will consider stakeholder feedback received through the *Pricing Framework Consultation Paper 2018-19* in developing AR-DRG Version 10. IHPA intends to release a public consultation paper in 2018 which will outline changes recommended for AR-DRG Version 10 and provide a further opportunity for stakeholders to inform the development of the new classification version.

IHPA will undertake targeted consultation with private sector stakeholders to determine an appropriate lead time for phasing out support for older AR-DRG classification versions.

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 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 has investigated whether there is sufficient activity and cost data to price paediatric palliative care services using the AN-SNAP classification for 2018-19. Given a relatively low number of episodes, IHPA has determined that the services will remain priced on a per diem basis for NEP18.

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.

Feedback received

NSW recommended that IHPA continue to use care type per diem to price subacute paediatric services until NEP19 when costed paediatric activity is collected. IHPA considers that there was sufficient data to price subacute paediatric activity using AN-SNAP for NEP17 except for paediatric palliative care.

NSW recommended that development of AN-SNAP Version 5 be considered on a needs basis. In developing Version 5, NSW suggested consideration of a same-day terminal phase for palliative care, in-reach rehabilitation and paediatric assessment tools for rehabilitation.

The Sunshine Coast Hospital & Health Service (HHS) raised concerns about the Functional Independence Measure in AN-SNAP as it is resource intensive and has not been found to improve care for a large cohort of patients. It was suggested that IHPA undertake a cost benefit analysis of the measure and consider a tool similar to the Resource Utilisation Group assessment tool as it requires less training and can be used by staff who provide regular care.

Darling Downs HHS recommended a simplified pricing model for subacute care, advising that AN-SNAP Version 4 adds little in explanatory power compared with a simpler combination of Care Type and Overnight Flag Stay per diem prices. IHPA considers that AN-SNAP has greater clinical relevance and cost predictiveness than per diem pricing of subacute care.

IHPA's decision

IHPA has determined that the Australian National Subacute and Non-Acute Patient (AN-SNAP) Version 4 classification will be used for pricing admitted subacute and non-acute services in NEP18. Per diem prices will be retained for paediatric palliative care services for NEP18.

Subacute and non-acute services not classified using AN-SNAP Version 4 will be classified using Diagnosis Related Groups.

Next steps and future work

IHPA will consider stakeholder feedback in its review of the classification ahead of commencing development on AN-SNAP Version 5.

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 use the Tier 2 Non-Admitted Services Version 5 classification for pricing non-admitted services which incorporates multidisciplinary case conferences where the patient is not present as discussed below.

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. Increased complexity and specialisation in health care has driven the need for more formalised mechanisms for multidisciplinary collaboration. IHPA has previously 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 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 the events and collecting cost data to enable development of a pricing approach. The study recommended a revised definition of a multidisciplinary case conference and to amend the counting rules to support their reporting.

IHPA has refined 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.

In the *Pricing Framework Consultation Paper 2018-19*, IHPA advised that it will work with stakeholders to price these activities in 2018-19 given strong stakeholder support in response to this proposal in prior years. As this will also be the first year of activity data collection for these services, they will be shadow priced in 2018-19.

Feedback received

The Cth, WA, ACT, Central Integrated Regional Cancer Service (CIRCS), Royal Australian and New Zealand College of Psychiatrists (RANZCP), Royal Australian College of General Practitioners (RACGP), QNMU, CHA, the Australian Psychological Society (APS), Metro North HHS, Alfred Health and Mater Brisbane supported shadow pricing of non-admitted multidisciplinary case conferences where the patient is not present. Stakeholders advised that this patient-centred initiative could enhance the quality of patient care, assist in transition in and out of primary care, and assist hospital managers in service planning, monitoring and promoting coordinated care.

The Australian Medical Association (AMA) supported pricing the activity, but queried in which year it would apply. IHPA's shadow pricing proposal involves determining a price for the activity in the NEP18 Determination, but with funding implications only in the following year.

Qld recommended a shadow pricing period of at least two years, which should not commence until there is an agreed data collection method. Qld and the National Health Funding Body (NHFB) emphasised the importance of clearly defining what activity meets the eligibility criteria, otherwise it may lead to over-reporting. Qld, the NT and the Metro North HHS noted the administrative burden associated with significant changes to collection processes.

The CIRCS recommended complexity stratification in the price to account for differences in the cost of the case conference due to the level of expertise required. NSW recommended that IHPA recognise this activity as a modality of care provided by a variety of non-admitted classes. IHPA intends to create two non-admitted classes, with the first being medical consultation and the second being allied health and/or clinical nurse specialist intervention.

Vic, SA, Tas, NT and Darling Downs HHS did not support the shadow pricing of non-admitted multidisciplinary case conferences where the patient is not present. Qld and SA advised that it is costed as part of routine care and the priority should be improving the quality of non-admitted patient-level data rather than diverting resources to implement data items. Darling Downs HHS noted that pricing non-patient activity does not align with the patient-based principle of ABF.

SA, NT and the NHFB queried how the activity would be shadow priced in the absence of robust cost information. NSW recommended deferring shadow pricing until the new Australian Non-Admitted Care Classification is finalised given the materiality of the costs of implementing the new classes. The NT and Metro North HHS recommended a detailed costing study.

Given continued general stakeholder support, IHPA has created two non-admitted classes for multidisciplinary case conferences where the patient is not present in Version 5 of the Tier 2 Non-Admitted Services classification for reporting and a shadow year of pricing from 2018-19. An exception rule to the definition of a non-admitted patient service event has also been introduced to allow for the reporting of the activity.

Shadow price weights for multidisciplinary case conferences where the patient is not present will be included in the NEP18 Determination to foreshadow their introduction in 2019-20. This gives an indicative price to jurisdictions to inform service planning. The shadow price weights will be based on the report on multidisciplinary case conferences commissioned by IHPA and released in May 2017.

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 the class.

As advised in the *Pricing Framework Consultation Paper 2018-19*, 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 and will consider undertaking a short costing study if required.

Feedback received

The Cth, NSW, Vic, Qld, WA, SA, NT, ACT, QNMU and Alfred Health supported investigation of multiple non-admitted classes for home ventilation, subject to changes being evidence-

based. Qld recommended a costing study, including consideration of cost differences between paediatric and adult patients. The Metro North HHS advised that there were differences in care between home ventilation patients depending on condition, ventilation type and hours.

The Cth recommended that new non-admitted prices be preceded by a shadow pricing period. IHPA will shadow major changes to the classification systems to provide jurisdictions with the lead time to implement system changes, if required, and to give indicative prices to inform service planning.

The NT recommended that, if the cost data does not support the creation of multiple classes, home ventilation services should be block funded given national volatility.

IHPA has identified significant variation in the reporting of activity and costs for non-admitted home ventilation services across and within jurisdictions. For this reason, these services will be block funded for 2018-19. IHPA will continue to investigate whether multiple classes for home ventilation should be created and will work with jurisdictions to determine when it would be appropriate to transfer these services to activity based funding.

IHPA's decision

IHPA has determined that the Tier 2 Non-admitted Services classification Version 5 will be used for pricing non-admitted services in NEP18.

Non-admitted home ventilation services will be block funded for 2018-19 given volatility in the costs of these services.

IHPA will introduce new non-admitted classes for multidisciplinary case conferences where the patient is not present for 2018-19, with shadow prices included for NEP18.

Next steps and future work

IHPA will continue to develop the new Australian Non-Admitted Care Classification, including targeted and public consultation on the proposed design aspects of the classification system.

This will include the release of a public consultation paper in early 2018 which seeks feedback on potential changes in healthcare service models and delivery to ensure that the classification will be fit for purpose and flexible enough to cope with changing health systems and models of care. The consultation paper will discuss proposed concepts and variables of the classification including unit of count, presenting problem/diagnosis-type variables and complexity variables.

IHPA notes jurisdictional concern that patient-centred variables are limited in the non-admitted data, but it is expected that the move of clinical records from paper to digital means that the constraints for data capture will lessen over time. The development of the future classification system will be cognisant of the collecting and reporting capabilities around Australia.

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 has published a public consultation paper on the draft classification system and data requirements on the [IHPA website](#). Public feedback will inform the final emergency care classification which 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 ICD-10-AM Principal Diagnosis Short List to improve the consistency of diagnosis reporting across jurisdictions and underpin the new emergency care classification under development. It will also support the collection of underlying data that supports clinical care and other uses such as quality improvement, epidemiological monitoring and health services research. 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. As advised in the *Pricing Framework Consultation Paper 2018-19*, IHPA will 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 their use of classification systems 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 has developed 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.

It is intended that jurisdictions will use the application or mapping file to map local data prior to submitting it to IHPA. This will enable jurisdictions to quality check data prior to submission. The tool is also 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 will be completed in late 2017 and will be available for use by jurisdictions.

IHPA's decision

IHPA has determined that Urgency Related Groups Version 1.4 and Urgency Disposition Groups Version 1.3 will be used for pricing emergency activity in NEP18.

Next steps and future work

IHPA is undertaking public consultation on the draft emergency care classification system and data requirements in late 2017 which can be accessed [here](#). The new emergency care classification is expected to be completed in early 2018.

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, which included 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 underway. The work includes significant clinical consultation and data modelling which has indicated that the major classification variables for trainees appear to be their profession and training stage.

In September 2017, IHPA undertook a [public consultation on the draft classification](#). The development of the new teaching and training classification is expected to be completed by mid-2018.

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.

Feedback received

Qld advised that its HHS and hospital managers have raised concerns about the proposed classification, including the administrative burden of new reporting requirements and querying the value of ABF within a teaching and training context given that the participants, education sessions and expertise of training staff should not be altered for 'efficiency' purposes.

The QNMU recommended that the classification include nursing and midwifery undergraduates and postgraduates. These disciplines will be covered by the classification.

IHPA's decision

In 2018-19 IHPA will determine block funding amounts for teaching, training and research activity based on jurisdictional advice.

Next steps and future work

IHPA will continue to develop a teaching and training classification, informed by stakeholder feedback on the consultation paper. The classification is expected to be completed in 2018.

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' concept. Due to the findings of the study, IHPA is undertaking a project in 2017-18 with clinicians in mental health services to observe use of the mental health phase of care in consumer assessments. The purpose is to ensure that the concept is clinically meaningful and relevant for use in the classification and to achieve improved consistency in its application.

IHPA has also commenced development of Version 2 of the classification. This work will be informed by analysis of data collected during the classification pilot, admitted mental health care patient data, National Hospital Cost Data Collection data and mental health National Outcomes and Casemix Collection data for children and adolescents, adults and older persons. IHPA will also examine incorporating clinical complexity and comorbidities into the classification.

IHPA will not 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.

Feedback received

The RANZCP strongly supported IHPA's ongoing development of the Australian Mental Health Care Classification. NSW recommended a longer stabilisation period for Version 1 to ensure that clinical momentum is upheld. The ACT, CHA and AHSA noted the importance of ensuring that the classification is a taxonomy for classifying mental health activity with value to clinicians.

The Cth and Qld supported refinement of the mental health phase of care tool and improved supporting documentation to address clinicians' concerns. WA, SA, ACT, AMA and QNMU advised that the work should ensure that the scope is broad enough to capture all care and engage a broad range of clinicians. The APHA advised that consultation and testing of the classification should include the private sector. The AHSA recommended consolidating the number of phases of care.

A number of stakeholders suggested areas for development in Version 2 of the classification. These include:

- consideration of how to align with the Fifth National Mental Health and Suicide Prevention Plan 2017-2022 (Cth);
- accounting for the impact of comorbidities and complexities (NSW, WA and QNMU);
- using mental health involuntary stays for weighting admitted episodes (NSW);
- altering the score used to drive the phase of care (NSW);
- recognising the cost profile of vulnerable patients;
- further splitting the child and adolescent age grouping;
- reviewing whether the Health of the Nation Outcome Scale thresholds for complexity are working as intended (NSW and WA);
- accommodating outreach and diversion services;
- division of therapeutic interventions to reflect therapy types (WA) and;
- allowing dual diagnoses (CHA).

IHPA's decision

The Australian Mental Health Care Classification will continue to be implemented for data collection in 2018-19.

Next steps and future work

IHPA will continue to develop Version 2 of the Australian Mental Health Care Classification over 2018-19.

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, alongside the National Public Hospital Establishment Database.

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 the Standards 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.

Feedback received

NSW recommended that IHPA undertake an impact assessment prior to implementation of Version 4 of the Standards to enable jurisdictions to fully understand the implications, and the NT recommended that educational material and information sharing opportunities be developed to support adoption of Version 4.

The NT recommended a strategic review of the National Hospital Cost Data Collection to assess the significant priority areas for development over the medium to long term. The NT also recommended improving the cost data collection's ability to inform remoteness loadings in the emergency and non-admitted care settings given current limitations in the cost data.

Qld advised that its analysis had identified significant differences between the National Hospital Cost Data Collection and the National Public Hospital Establishment Database which warrants a variance review of the two collections to quantify and examine this issue.

The PHA recommended harmonising standards for the National Hospital Cost Data Collection and reporting across the private and public sectors and introducing mandatory participation to facilitate a more timely transition to recent AR-DRG versions. Mandatory participation in the private sector cost report is a matter for Australian governments and is not within IHPA's remit.

The proposals will be considered by IHPA in future years once Version 4 of the Standards has been introduced and its impact has been assessed.

IHPA's decision

The Australian Hospital Patient Costing Standards Version 3.1 are to be used in Round 21 of the National Hospital Cost Data Collection.

Next steps and future work

IHPA intends to release Version 4 of the Australian Hospital Patient Costing Standards in 2018 for use in future rounds of the National Hospital Cost Data Collection. IHPA will make an assessment of the magnitude of system changes required for Version 4 once they are finalised. This will inform the final implementation timeline.

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.

Feedback received

The CHA expressed concern that private providers who are contracted to deliver public hospital services have not been granted access to the portal by jurisdictions which creates barriers to benchmarking their performance. IHPA notes that access to the portal is controlled by states and territories in their role as system managers.

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.

In the *Pricing Framework Consultation Paper 2018-19*, IHPA did not propose any significant modifications to the National Pricing Model for 2018-19. IHPA will consider any new technical improvements suggested by stakeholders in the development of NEP18.

Feedback received

NSW advised that telehealth should be considered a modality of care across all settings. IHPA is considering how telehealth can be better accounted for across the classification systems.

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 has not proposed 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.

Feedback received

Vic, Qld and the RANZCP supported deferring pricing mental health services using the new classification for 2018-19 given the absence of phase of care data. The QNMU supported IHPA's investigation of a proxy for phase of care, provided it is based on data and evidence.

IHPA's decision

IHPA's approach to pricing mental health services in 2018-19 will remain unchanged from 2017-18. Admitted mental health services will continue to be priced using the Australian Refined Diagnosis Related Groups system and non-admitted mental health services will be block funded.

Next steps and future work

IHPA will continue to investigate an appropriate proxy for 'mental health phase of care' which may allow for implementation of the Australian Mental Health Care Classification for some mental health services. Full implementation of the classification for pricing will occur once phase-level cost and activity data is available from states and territories.

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

Qld and WA 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

WA 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 NT. WA 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.

The CHA recommended a review of population change and spread to better identify “regional and remote areas”. IHPA uses the latest Australian Statistical Geography Standard Remoteness Area classification (2011) developed by the Australian Bureau of Statistics to determine patient and hospital remoteness. IHPA continues to investigate alternative remoteness measures to better reflect remoteness where they are suggested by stakeholders.

IHPA has investigated this and other proposals under the *Assessment of Legitimate and Unavoidable Cost Variations Framework*. IHPA requested and reviewed evidence from jurisdictions and undertook 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 determined under the NEP to establish if there is a consistent pattern of cost differential.

IHPA acknowledges that there are legitimate and unavoidable costs associated with the treatment of patients in regional and remote public hospitals which are not fully accounted for through the existing Patient Remoteness Area Adjustment.

For NEP18, IHPA will introduce a ‘Treatment Remoteness Adjustment’ which provides an additional treatment-based loading to account for the costs of care for admitted acute episodes in regional and remote hospitals which is not otherwise accounted for through the patient-based adjustment. In particular, the adjustment better accounts for the higher costs of care associated with treatment in very remote areas.

Home ventilation

Qld 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, Qld has suggested that IHPA undertake a costing study to source the information required to further consider this issue.

As discussed in Chapter 4, IHPA has identified significant variation in the reporting of activity and costs for non-admitted home ventilation services across and within jurisdictions. These services will transition to block funding for 2018-19. IHPA will continue to investigate whether multiple classes for home ventilation should be created for future years.

Feedback received

The Cth and WA supported IHPA’s investigation of alternative methodologies for calculating the Remoteness Area and Indigenous Adjustments to account for extreme isolation in service provision.

NSW recommended an adjustment for admitted subacute patients with a principal or additional diagnosis of delirium or dementia as it is a cost driver which is not accounted for except for geriatric and evaluation management patients. IHPA has examined this issue and identified that there is no cost differential at the national level for these patients. Better accounting for delirium/dementia will be considered in developing AN-SNAP Version 5.

NSW also recommended an adjustment for admitted patients with obesity as they are more costly than patients with similar clinical profiles. IHPA’s analysis shows that whilst patients with obesity diagnoses are slightly under priced at present, the low volume of patients nationally

(approximately 22,700 pa) means that this is not material enough to warrant an additional adjustment to the NEP. The impact of obesity on the costs of care is adequately recognised in the Episode Clinical Complexity Score in the AR-DRG classification. IHPA will further consider this issue in the development of AR-DRG Version 10.

The NT recommended that IHPA standardise adjustments between care settings where the service is the same, such as renal dialysis and chemotherapy, as per the Pricing Guidelines. For example, the Remoteness Area Adjustment should also apply to non-admitted and emergency care as transferring services to these settings has a negative financial impact. IHPA has not identified similar cost differences due to remoteness for these settings.

CHA recommended an adjustment for patients who are homeless as they tend to be comparatively more costly and have a higher length of stay. IHPA has examined this issue and has not identified a material cost difference or volume of patients at the national level for patients with a diagnosis for homelessness which would warrant an adjustment.

QNMU also raised the role of social factors in the costs of admission to hospital, for example suggesting an adjustment for patients from culturally and linguistically diverse backgrounds. Version 4 of the Australian Hospital Patient Costing Standards is expected to better capture interpreter services which will allow IHPA to examine whether there is a cost differential for these patients in future years.

IHPA's decision

For NEP18 the Pricing Authority has determined to apply these evidence-based adjustments:

- Paediatric Adjustments for a person who is aged up to and including 17 years and is admitted to a Specialised Children's Hospital for admitted acute patients or treated in any facility for admitted subacute patients.
- Specialist Psychiatric Age Adjustment for a person who has one or more psychiatric care days during their admission, with the rate of adjustment dependent on the person's age and whether or not they have a mental health-related primary diagnosis.
- Patient Residential Remoteness Area Adjustment for a person whose residential address is within an area that is classified as being outer regional, remote, or very remote in the Australian Bureau of Statistics' Australian Statistical Geography Standard, with the rate of adjustment dependent on the person's geographical classification.
- Patient Treatment Remoteness Area Adjustment for an admitted acute patient who is treated in a hospital which is classified as being outer regional, remote, or very remote in the Australian Bureau of Statistics' Australian Statistical Geography Standard, with the rate of adjustment dependent on the hospital's geographical classification.
- Indigenous Adjustment for a person who identifies as being of Aboriginal and/or Torres Strait Islander origin.
- Radiotherapy Adjustment for a person with a specified ICD-10-AM 10th edition radiotherapy procedure code recorded in their medical record.
- Dialysis Adjustment for an admitted acute patient who receives dialysis whilst admitted to hospital for other causes (and are not assigned to the AR-DRG L61Z Haemodialysis or AR-DRG L68Z Peritoneal Dialysis).
- Intensive Care Unit Adjustment for an admitted acute patient who has spent time within a Specified Intensive Care Unit.
- Private Patient Service Adjustment and Private Patient Accommodation Adjustment for admitted private patients.
- Multidisciplinary Clinic Adjustment for patients which have a service event involving three or more health care providers (each of a different specialty) in the non-admitted setting.
- Emergency Care Age Adjustment is for patients who present to an Emergency Department or Emergency Service, with the rate of adjustment dependent on the person's age.
- Hospital Acquired Complications Adjustment is for admitted acute episodes where one or more hospital acquired complications are present. If more than one hospital acquired complication is present, the larger of the adjustments applies. Further information on the mechanics of the adjustment is provided at Chapter 12.

Specific details for these adjustments will be included in the NEP18 Determination.

Next steps and future work

IHPA will continue to undertake a program of work to establish the factors resulting in legitimate and unavoidable variations in the costs of providing public hospital services.

IHPA will continue to review its existing adjustments as classification systems improve, with the aim of discontinuing adjustments associated with input costs or which are facility-based when it is feasible to do so.

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. 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.

IHPA's decision

IHPA will continue to stabilise year-on-year changes in price weights where they exceed 20 per cent in accordance with its National Pricing Model Stability Policy.

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 National Hospital Cost Data Collection data (Round 20) which is 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.

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.

Feedback received

NSW recommended splitting the Private Patient Service Adjustment into two components – prosthesis and medical, to recognise the different characteristics of these costs. Prostheses costs are incurred by the hospitals and reimbursed by health insurance funds whilst medical costs are paid to the clinician. Splitting the adjustments could lead to improved precision in the pricing model. IHPA has considered this proposal in its development of NEP18 and determined that the added complexity it would introduce in the National Pricing Model outweighs the added precision.

CHA noted concerns about funding incentives for public hospitals to maximise private patient activity, such as own-source funding targets in some jurisdictions, and advised that funding agreements should ensure neutrality of funding for public and private patients. IHPA notes that this is an issue for jurisdictions to consider through the Council of Australian Governments.

IHPA's decision

IHPA will continue to apply the private patient correction factor for 2018-19.

Next steps and future work

The costing of private patients is a priority area for improvement in Version 4 of the Australian Hospital Patient Costing Standards and IHPA will work with jurisdictions to further refine the approach for capturing these costs in the future. This should allow for the removal of the private patient correction factor in future years.

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.

IHPA's decision

IHPA will maintain the existing approach of removing blood costs and Commonwealth pharmaceutical program payments from the National Hospital Cost Data Collection prior to determining NEP18.

Next steps and future work

IHPA will continue to work with jurisdictions and other stakeholders to develop an improved approach to the treatment of blood and blood products costs in 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.

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 has investigated 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.

Feedback received

NSW, Vic, Qld, SA, Tas, ACT, NT, QNMU and CHA expressed strong support for IHPA investigating whether there is a financial impact from transferred services from ABF to block funded hospitals and supported alternative methodologies to address this issue if identified.

Stakeholders advised that the pricing models do not sufficiently recognise the lack of economies of scale in smaller rural sites. To address this issue, NSW, Qld, WA and Tas recommended consideration of the NSW “fixed plus variable” model for small rural hospitals which was introduced from 2017-18. This funding approach does not financially penalise hospitals for potential idle capacity and delivers greater funding stability where services are transferred to and from ABF. Qld also suggested potentially increasing the number of efficient cost groupings.

IHPA has considered these proposals in the development of NEC18 in consultation with jurisdictions. IHPA’s preliminary analysis in developing NEC18 indicates that the existing NEC model better reflects the costs of service delivery in small rural hospitals when compared to alternative fixed/variable model options which have been proposed. IHPA intends to further investigate this issue using other fixed/variable model options for NEC19.

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 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.

In the *Pricing Framework Consultation Paper 2018-19*, IHPA proposed 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.

Feedback received

Cth, NSW, Vic, Qld, WA, SA, Tas, NT, ACT, CHA, CHQ, QNMU and RANZCP supported the proposal to continue to block fund residential mental health care until consistent and robust data is available to support an ABF model.

9.4 Non-admitted home ventilation services

As discussed in Chapter 4, significant variances in the reporting of activity and costs for this class across and within jurisdictions were identified. IHPA has determined that these services are more appropriately priced using the block funded model and will transition from ABF to block funding for NEC18.

9.5 HealthLinks: Chronic Care

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.

IHPA has agreed that HealthLinks will be eligible for block funding in 2018-19 with the following conditions:

- A trial period of 12 months (with a possibility of extension)
- The trial is limited to four LHNs where specific patients are nominated
- IHPA is provided with an activity feed for the services received every three months in a data file
- The data is not in aggregate form
- The costs are either excluded from the National Hospital Cost Data Collection or provided separately
- A review will be taken after 12 months to ensure patients are receiving effective treatment and to assess the cost of the treatment.

IHPA's decision

IHPA will consider further refinements to the methodology for determining the National Efficient Cost and confirm the approach taken in the NEC18 Determination.

For NEC18 IHPA will block fund teaching, training and research expenditure in Activity Based Funded (ABF) hospitals, non-admitted mental health services, non-admitted home ventilation services, HealthLinks and non-ABF services on the 'A17 List'.

Next steps and future work

IHPA will continue to investigate whether there is a financial impact from transferring services from ABF to block funded hospitals and if the methodology for determining the NEC requires amendment.

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 has provided 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.^{1,2,3}

In the *Pricing Framework Consultation Paper 2015-16* IHPA 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 in consultation with an advisory group which included jurisdictional, clinical, consumer and maternity peak body representatives. This work has included a detailed review of public hospital data across settings of care and a review of bundled payment schemes overseas.

Stakeholder views were sought through the *Pricing Framework Consultation Paper 2018-19* on the findings of the advisory group regarding the service delivery patterns of maternity patients, the proposed bundled pricing approach and the potential for future implementation.

The advisory group concluded that antenatal and postnatal service delivery was comparatively consistent, but that there was significant variance in the costs of the admitted birth episode. Options were considered for the scope of patients, services and stages of care for inclusion in a bundled pricing approach, as well as how the price could be determined. The advisory group ultimately determined:

- The scope of the bundled pricing approach should be limited to the admitted birth episode and non-admitted antenatal and postnatal service delivery which covers

¹ 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](#).

² 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.

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

routine care. This mitigates the risk of hospitals being financially penalised for providing emergency or additional admitted care.

- All stages of care (antenatal, intrapartum and postnatal) should be included as this recognises their interrelationship, provides transparency about the overall cost of maternity care and offers the greatest opportunity for service redesign.
- All or most women should be included in the approach, with additional service delivery for complex pregnancies to be priced as a 'top up' using the existing ABF approach.
- Separate prices should be determined for the birth episode and the non-admitted antenatal and postnatal component which would be combined into a single price. The price would reflect the average national cost of care.
- The admitted birth episode should continue to have the price determined using the AR-DRG classification. This is an interim decision which recognises the absence of viable patient-based alternative mechanisms for differentiating patient complexity.
- The non-admitted portion of the bundled price could be determined by either a single price for all patients or separate prices per patient group. A patient's DRG for birth was identified as offering the greatest explanatory power in national data sets for the costs of non-admitted service delivery and could be used to group patients. The price should also be risk adjusted, with possible adjustments for diabetes and multiple births.

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. These preconditions include:

- A single patient identifier which would allow for the accurate identification of service delivery to patients across settings of care, financial years and hospital establishments. Until such time as the [Individual Healthcare Identifier](#) or an alternative patient identifier is included in national data sets, bundled pricing will not be feasible at a national level.
- Identifying and communicating a clear benefit of the pricing approach to patients and the health system which outweighs the administrative burden of new reporting requirements.
- Strong clinical and stakeholder support which is sustained over time and includes all interested parties.

Until the issues are resolved a bundled pricing for maternity care cannot progressed further and the introduction of a bundled pricing approach in the NEP is not proposed for 2018-19.

Further information on the work of the advisory group, including the proposed bundled pricing model and implementation barriers which were identified has been included in a [final report](#) which has recently been published on the IHPA website.

Feedback received

The Maternity Consumer Network (MCN) and QNMU supported the introduction of a bundled pricing model for maternity care once implementation barriers have been addressed, noting that it is an opportunity to drive new patient-centred and evidence-based models of care. The Cth, NSW, SA, Tas and the NT also supported the work to date and its future consideration.

Qld, Vic and the ACT supported deferring the introduction of a bundled pricing model until a variety of implementation and other issues have been addressed, including agreement on appropriate clinical pathways, data linkage and substantial jurisdictional and clinical advice.

The CHA, Mater Brisbane and AMA did not support the proposed bundled pricing approach for maternity care due to insufficient risk adjustment in antenatal care, the administrative burden

of data collection and reporting and as it could lead to cost rationing and shifting maternity patients to care in lower cost settings which may put them at risk.

Stakeholders also raised issues for consideration in refining the bundled pricing model for maternity care. Mater Brisbane advised that the benefits of a bundled pricing approach could be clarified, QNMU and MCN sought a decision on whether postnatal care to the newborn would be included and Qld and MCN recommended greater consideration of best-practice care and monitoring of patient outcomes. IHPA intends to further consider these issues once the preconditions to introducing a bundled pricing model have been addressed.

Cth, Qld, NT, ACT, QNMU and MCN supported further investigation by IHPA of the inclusion of the Individual Healthcare Identifier or an alternative patient identifier in national data sets. The ability to identify patients across years, hospitals, settings of care and jurisdictions was described as key to designing and implementing a robust bundled pricing model. The NHFB noted the importance of ensuring that service delivery to each patient could be accurately identified for funding purposes and Qld noted that it could be used to identify readmissions.

Some stakeholders had reservations about including patient identifiers in national data sets. NSW advised that IHPA should prioritise clarifying the benefit of bundled pricing to patients and supporting the introduction of innovative funding models by jurisdictions. Vic advised that substantial jurisdictional consultation would be required, while SA believed that this issue should be considered by the Australian Institute of Health and Welfare instead. Tas noted that most jurisdictions already capture some form of patient identifier. Alfred Health expressed concern regarding the administrative burden of collecting and reporting new data items.

IHPA considers that introduction of a unique patient identifier in national data sets would offer broad benefits to the health system in terms of service planning, supporting the introduction of innovative funding models and better understanding trends in service delivery. The Individual Healthcare Identifier is an existing person identifier which can provide a rich data set across settings of hospital and primary care in future years. All Australians with a Medicare number have the identifier which underpins the My Health Record program administered by the Australian Digital Health Agency. IHPA will work with jurisdictions, national data committees, the Commonwealth and the Australian Digital Health Agency to further consider the appropriateness of this identifier and the appropriate lead time for its inclusion.

IHPA's decision

IHPA will work with jurisdictions to consider introducing an Individual Healthcare Identifier or alternative patient identifier in national data sets.

Next steps and future work

The work of the advisory group in developing a bundled pricing model for maternity care has concluded, with a report outlining the model and key learnings available on [IHPA's website](#). IHPA is working with jurisdictions to consider the introduction of unique patient identifiers in national data sets in 2018.

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.

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. The Addendum 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.

Vic and Qld 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, Vic 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.⁴ 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:⁵

- **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.

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.

⁴ Deloitte 2016 Global health care outlook, [Battling costs while improving care](#).

⁵ World Economic Forum & Boston Consulting Group, April 2017, '[Value in Healthcare Laying the Foundation for Health System Transformation](#)'

Feedback received

Feedback on the *Pricing Framework Consultation Paper 2018-19* was strongly supportive of innovative funding models and value-based healthcare at the national and jurisdictional levels.

Consideration of jurisdictional proposals

Stakeholders suggested a number of issues for IHPA to consider reviewing jurisdictional applications for the block funding of patients to support innovative funding models.

The Cth and the NHFB stressed the importance of transparency to prevent any potential double payments for services under ABF and block funding. IHPA does not intend to prematurely block fund patients under these models until reconciliation issues are addressed.

NSW recommended that IHPA revisit the eligibility criteria for assessment of non-admitted services for Commonwealth funding purposes given that new funding models tend to focus on reducing avoidable hospitalisations through effective community-based services. Darling Downs HHS recommended that IHPA block fund these hospital avoidable initiatives. IHPA will consider the proposal to revisit the criteria for in-scope services in the next review of the [Annual review of the General List of In-Scope Public Hospital Services](#) policy in 2018.

WA, ACT, CHA and QNMU recommended greater linkage of data sets to inform analysis of these new funding models which often operate across care settings. IHPA notes that an Individual Healthcare Identifier in national data sets would support data linkage.

Foundations of value-based models of care

There was substantial feedback on what stakeholders believe are the foundations for consideration of value-based models of healthcare by IHPA in future years.

The Cth, Vic, Qld, RACGP, QNMU, AMA, Alfred Health and CHQ advised that value-based care should focus on improved health outcomes for patients rather than the volume of services delivered and value-based models should support collection and use of outcomes data for monitoring and/or payment purposes. The Cth and Vic also advised that these models should deliver greater allocative efficiency and transparency regarding the overall cost of patient care.

Vic suggested that IHPA consider whether innovative funding models adopted at the state or territory level are scalable and transplantable across jurisdictions.

WA, Tas, ACT, RACGP, Alfred Health and QNMU recommended that value-based models focus on encouraging delivery of health services in the community and primary care settings, as well as greater care coordination across settings particularly for chronic disease patients. The ACT, QNMU and APS said that these models should also be built on patient choice.

The ACT, QNMU, APS recommended substantial clinical and consumer input in developing new models of value-based care. The AMA and QNU advised the importance of new models being evidence-based, with the QNMU adding that it should support best-practice care.

Risk adjustment and accounting for the needs of particular populations was regarded as important in developing value-based approaches. The NT and QNMU identified supporting service delivery in rural and remote areas as an objective. While the AMA and RACGP noted that any value-based model would need a robust approach to addressing any unintended consequences such as the rationing of care for complex patients or 'gaming' of the system.

IHPA's decision

IHPA will consider jurisdictional proposals to block fund patients to support the introduction of new innovative funding models on a case-by-case basis.

IHPA will undertake a program of research to review approaches to value based care internationally.

Next steps and future work

IHPA intends to develop criteria for assessment of the block funding of patients to support adoption of innovative new funding models at the jurisdictional level, as well as to inform its own future consideration of new value-based approaches at the national level.

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.

Feedback received

NSW supports the application of a discount for sentinel events that occur after 1 July 2017. NSW seeks confirmation that prospective data submissions will be used to evaluate whether a discount for sentinel events is applied.

IHPA's decision

IHPA implemented a funding approach for sentinel events in 2017-18 whereby no payment is provided where a sentinel event is reported as identified using jurisdictional flags. Introduction of this funding approach is a requirement under the Addendum to the National Health Reform Agreement.

Next steps and future work

IHPA will continue to work with the Commission to refine the list of sentinel events. Once the 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 model 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 21.4 per cent to the cost of an episode while the presence of a persistent incontinence HAC adds 2.2 per cent to the total cost of an episode.

Table 2: Incremental cost adjustments by HAC group

Complication	Adjustment based on incremental cost
All HACs	8.5%
1 Pressure Injury	13.9%
2 Falls resulting in fracture or other intracranial injury	6.7%
3 Healthcare associated infection	8.6%
4 Surgical complications requiring unplanned return to theatre	10.5%
5 Unplanned intensive care unit admission	n/a
6 Respiratory complications	15.8%
7 Venous thromboembolism	12.3%
8 Renal failure	21.4%
9 Gastrointestinal bleeding	9.7%
10 Medication complications	8.1%
11 Delirium	9.7%
12 Persistent incontinence	2.2%
13 Malnutrition	7.3%
14 Cardiac complications	11.2%
15 Third and fourth degree perineal laceration during delivery	23.2%
16 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 score⁶;
- 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.

⁶ 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.

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 has submitted a report to the COAG Health Council by 30 November 2017 which has modelled the impact on public hospital funding of the proposed HAC funding model. The report summarises the impact of the model at the Local Hospital Network level, examines differences by hospital peer groups, highlights key findings of shadow implementation and make recommendations regarding the implementation of the funding model for HACs in 2018-19.

Feedback received

HAC risk adjustment model

Feedback received on the risk adjustment model for HACs indicates that there is general support for the design and implementation of the model. Stakeholders also provided commentary on specific elements of the design and implementation of the risk adjustment and funding model.

NSW recommended IHPA investigate the apparent bias of HAC prevalence rates associated with the most complex DRGs, and identify preventability factors as well as risk factors.

Vic considers that the model creates mixed incentives regarding the reporting of HACs and that it double penalises the reporting of HACs that do not change an episode's DRG assignment. A HAC that results in the assignment of a more complex DRG can potentially offset the impact of funding adjustments resulting from the model.

Qld recommends that IHPA consider Indigenous status for inclusion in the risk adjustment model.

Alfred Health does not support the proposed risk adjustment model on the basis that the model is overly complex, implementation is resource intensive and the underlying activity and cost data is not sufficiently mature or robust.

The CHQ and CHAu consider that the proposed age band of zero to four used in the risk adjustment model does not account for the comorbidities and case complexity of babies under the age of one.

The Qld, CHAu and the CHQ consider that the Charlson score does not adequately reflect paediatric patient acuity and recommended a separate risk-adjusted comorbidity model for children be considered. The AHSA considers that the Charlson score has limited impact and supports its removal from the risk adjustment model.

Tas and the AMA expressed concerns regarding the proposed timeframes for shadowing and implementation of the risk adjustment model and requested additional time be provided for the shadowing of the model to facilitate a thorough review and consultation on its impacts on funding.

The AMA also raised concerns regarding the application of the maximum funding reduction to episodes which contain more than one HAC, arguing that it is unnecessarily harsh.

The Administrator and the NHFB will consult with IHPA and jurisdictions on the development of a shadow Commonwealth Contribution Model for 2017-18, that incorporates risk-adjusted pricing for HAC events.

Third and fourth degree perineal lacerations and neonatal birth trauma

The AMA, NSW, NT, CHA, QNMU and Mater Brisbane supported the exclusion of these conditions from the HAC funding model until better data and sample sizes can facilitate their inclusion. The QNMU indicated that IHPA should continue to collect data on these conditions to facilitate incorporation into the funding model at a later stage.

Vic considers it appropriate to include third and fourth degree perineal lacerations and neonatal birth trauma as a means of driving systems improvement and reducing the focus on sample size inherent in the model.

The AMA questioned the preventability of renal failure, malnutrition, respiratory complications, gastrointestinal bleeding and delirium in a number of clinical settings and supports their removal from the funding model. Similarly, the CHQ supports the removal of renal failure and gastrointestinal bleeding from the funding model on the basis that these, in most cases, are an expected complication, particularly in Specialist Paediatric Hospitals.

IHPA notes that the Commission is responsible for the ongoing curation of the HAC list.

Next steps and future work

Stakeholder feedback has informed the further development of the HAC funding model and the detailed report to COAG Health Council on its implementation has been provided.

IHPA will introduce a Hospital Acquired Complications Adjustment in the NEP18 Determination.

The details on the Hospital Acquired Complications Adjustment, including the approach to risk adjustment, will be confirmed in the final NEP18 Determination and National Pricing Model Technical Specifications which will be released in February 2018.

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.^{7,8} This program has been linked to a modest drop in readmission rates.

Financial adjustments based on readmission rates include the following⁹:

- 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).

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 working with IHPA to finalise an agreed list of clinical conditions that can be considered avoidable hospital readmissions along with an accompanying set of condition-specific intervals for the measurement of 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

⁷ James, Julia. Medicare Hospital Readmissions Reduction Program. Health Policy Brief. November 12, 2013.

⁸ Boccuti, Cristina and Giselle Casillas. [Aiming for Fewer Hospital U-turns: The Medicare Hospital Readmission Reduction Program](#), May 10, 2017.

⁹ 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.

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 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).

12.6.4 Consultation on pricing and funding options

Following the finalisation of an agreed list of avoidable hospital readmissions, 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 2018 and inform future advice to the COAG Health Council.

Feedback received

Development of pricing and funding models for avoidable hospital readmissions

Stakeholders raised a variety of risk factors which should be accounted for in a pricing and funding model for avoidable hospital readmissions:

- NSW, Vic, RACGP, Alfred Health – Any model needs to account for social and economic patient factors, as well as health co-morbidities.
- CHQ – Any model should identify variance from the national mean rate as an instrument to reduce rates as per the Variable Life Adjusted Display model.
- APS – Mechanisms for identifying patients at risk of readmission should include ratings in a range of psychological risk indicators, case complexity and the impact of substance abuse.
- Vic, AMA – The preventability of readmissions should be identified based on clinical advice and evidence, rather than statistical modelling or data sources.

Stakeholders also recommended that IHPA consider the interaction between the admitted and other settings of care in particular, the mechanism for supporting the moving funds from the admitted care setting into programs that improve patient outcomes and avoid readmissions. It was also suggested that IHPA consider the links between primary and secondary care and the role of GPs in supporting these links.

In developing a pricing and funding approach for readmissions, Qld recommended that IHPA undertake a process similar to that undertaken for the HAC funding adjustment model, which included consultation on funding models after analysis of definitions and trends across jurisdictions. SA recommended that there should be a focus on simplicity in model development and consideration of adjustments on the basis of hospital peer group.

Alfred Health suggested that financial rewards would be more effective than penalties.

The ACT suggested that consideration should be given to shadow implementation from 2018-19 with a tentative implementation date of 2019-20 based on the findings.

Assessment criteria

The NT, Vic, APS, APS, CHA, AHSA, ACT, Cth, Alfred Health, Mater Brisbane and QNMU expressed general support for the proposed assessment criteria. The Commonwealth supported the addition of criteria to evaluate whether the proposed model meets the intent of incorporating safety and quality into hospital pricing, as outlined in the Addendum to the NHRA. Vic recommended including assessment criteria to assess the risk of unintended consequences and the impact of incentives to under report or adversely affect service delivery.

IHPA's decision

Following the finalisation of an agreed list of avoidable hospital readmissions by the Australian Commission and Safety and Quality in Health Care, IHPA will begin a detailed program of work to formulate pricing and funding options for avoidable hospital readmissions.

IHPA proposes to release a consultation paper on this work prior to the development of NEP19 to inform future advice to the COAG Health Council.

Next steps and future work

The 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. IHPA is working with the Commission to finalise a list of agreed clinical conditions and condition specific intervals.

Following the completion of this work, IHPA will work to develop options for pricing and funding for avoidable hospital readmissions. This development work, along with feedback received through the Consultation Paper, will inform a report on approaches to pricing and funding avoidable hospital readmissions.

IHPA will release a consultation paper on this work prior to the development of NEP19 to inform future advice to the COAG Health Council.

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