Consultation Paper on the Pricing Framework for Australian Public Hospital Services 2019-20

Queensland Submission

Background

The Independent Hospital Pricing Authority (IHPA) is seeking feedback from stakeholders on the *Consultation Paper on the Pricing Framework for Australian Public Hospital Services 2019-20*, released on 12 June for public feedback.

IHPA continues to incorporate safety and quality into the pricing and funding of public hospital services to improve health outcomes, avoid funding unnecessary or unsafe care and decrease avoidable demand for public hospital services. This work is set out in the *Addendum to the National Health Reform Agreement* (the Addendum). The Addendum also requires the development of an approach for avoidable readmissions which will be considered by health ministers (refer Chapter 11 of the Pricing Framework Consultation Paper 2019-20). Also in 2018, IHPA will undertake a review of the fundamental approach underlying the pricing model to ensure the most robust and up to date techniques for determination of the National Efficient Price (NEP).

Feedback gathered from the public consultation process will inform IHPA's development of the *Pricing Framework for Australian Public Hospital Services 2019-20* which sets out the policy rationale and decisions regarding their program of work and the decisions in the NEP and National Efficient Cost (NEC) Determinations for 2019-20 (also known as the NEP19 and NEC19).

Overall Comment

Note that this feedback is from the Queensland Department of Health (the Department), unless identified as being from a specific Queensland stakeholder.

3. Scope of public hospital services

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

Consultation Question:
1. What changes, if any, should be made to the criteria and interpretive guidelines in the Annual Review of the General List of In-Scope Public Hospital Services policy?

The Mental Health Branch (MENTAL HEALTH BRANCH) noted that Queensland Health has applied to have Child and Youth Mental Health ambulatory services included as in-scope Public Hospital Services on numerous occasions through the annual submission process. The continued exclusion of these services whilst like services in both New South Wales (NSW) and Victoria are included seems discriminatory. Earlier health reform agreements (i.e. Medicare Agreements) included specific schedules for mental health and facilitated reform for mental health, including moving people out of institutions and supporting the mainstreaming of care. Mental health services have been at the forefront of developing

non-bed based specialised healthcare through investment in community treatment models and this seems to now be used to avoid national investments. The issues around admitted and non-admitted services seem to be based on historical service delivery, not more contemporary models of secondary and tertiary service delivery. The branch suggested that guidelines need to consider what changes to health care organisations are trying to drive and decision making should be aligned to these rather than what appears to be attempts to constrain the Commonwealth contributions.

The Department notes that there are inconsistencies between jurisdictions with regards to which services are deemed eligible under Clause A17 of the National Health Reform Agreement (NHRA). In some jurisdictions, Child and Adolescent Mental Health Services are considered eligible, however this is not the case in Queensland. Some jurisdictions also have eligible Aboriginal Health clinics, despite the Aboriginal Health Tier 2 clinic having been removed from the classification.

The Department recommends that IHPA review the scope of public hospital services to ensure greater consistency between jurisdictions in which services are deemed eligible under Clause A17 of the NHRA. The scope of services should include developments in non-bed based specialised health care through investment in community treatment models.

4 Classifications used by IHPA to describe public hospital services

4.2 Australian Refined Diagnosis Related Groups classification

Consultation Questions:

2. How could 'Australian Coding Standard 0002 Additional Diagnoses' be amended to better clarify what is deemed a significant condition for code assignment?
3. Do you support the proposed timeframe to phase out support for AR-DRG classification versions prior to AR-DRG Version 6.X from 1 July 2019?
4. Do you support the current biennial AR-DRG development cycle. If not, what is a more appropriate development cycle?

Changes to Coding Standards

Sunshine Coast Hospital and Health Service (HHS) regards the current draft of Australian Coding Standard (ACS) 0002 Additional Diagnoses for 11th edition release as an improvement on previous versions however noted that there will continue to be challenges with applying this standard dependent on the quality of documentation. As documentation quality is managed at the facility level and dependent on resources invested, there will always be variation in the application of ACS 0002 i.e. the coded data reflects the quality of the documentation not necessarily the care provided. The HHS suggested that there needs to be some investment in ACS 0002 training for 11th edition and consideration should be given to interactive workshops.

Townsville HHS noted that Coding Standards state an Additional Diagnosis is a condition or complaint either coexisting with the principal diagnosis or arising during the episode of admitted patient care. For coding purposes, additional diagnoses should be interpreted as conditions that affect patient management in terms of requiring any of the following:

- commencement, alteration or adjustment of therapeutic treatment;
- diagnostic procedures; or
- increased clinical care and / or monitoring.

Unfortunately, however, Coding Standards do not provide definitive guidance on when a condition is considered significant enough to be coded as an additional diagnosis, for example care may have been a once-off administration of a drug to enable relief of a single episode of a condition i.e. administered a single dose of Temazepam for inability to sleep. Townsville HHS proposed that guidance around the timeframe of care or course of treatment administered should be introduced to the Coding Standards to provide consistent guidance for clinical coders on when a condition is recognised as "significant" and appropriate for coding as an additional diagnosis.

Statistical Services Branch (STATISTICAL SERVICES BRANCH) raised concerns regarding the proposal to remove "increased monitoring" as a criterion for ACS 0002. This contradicts the included statement and purpose of the ACS - "resources used in each episode of care." The monitoring of chronic conditions such as chronic kidney disease, diabetes mellitus, liver failure, cirrhosis, etc is important for assessing development of potential associated complications and assuring quality of care provided. The monitoring of a patient's blood sugar levels, glomerular filtration rate (GFR) or nursing staff providing incontinence care is a routine nursing responsibility however it consumes significant resources; it is important that this critical patient care activity remain as a criterion to ensure coding reflects provision of care and services are adequate funded via the Pricing Framework.

Phasing Out Support for Earlier AR-DRG Classifications

Townsville, Sunshine Coast and Gold Coast HHSs collectively supported the phasing out of earlier Australian Refined Diagnosis Related Group (AR-DRG) versions however noted the impact on the private sector and outsourced contracts and subscription organisations (e.g. Health Roundtable).

The Central Integrated Regional Cancer Service (CIRCS) proposed a minimum twelve-month timeframe for any phase out.

The Department supports the phasing out of earlier AR-DRG versions, but acknowledges that there is minimal public-sector impact. It should be noted that DRG V5 has the longest contiguous usage of any of the DRG classifications, which has proven useful for longitudinal and actuarial studies. The jurisdiction suggests that IHPA consider retaining DRG V5.

Development Cycle

Gold Coast HHS advised that the current cycle of releases is reasonable, however the manner in which releases are structured can be problematic. The HHS noted that AR-DRGs were initially developed for research and benchmark usage, and were subsequently utilised for funding. Major releases that can modify the base AR-DRG structures, every two years as opposed to incremental changes, can compromise the ability to undertake longitudinal analysis.

The HHS suggested minor releases should occur on a one or two-year basis, with significant releases every five years. This schedule would keep each release reasonably consistent for a longer period which will facilitate comparisons between years even if the years have not been regrouped to a consistent version (i.e. the base DRGs are similar). The HHS also noted that despite the current development cycle, there are still issues with the classification being able to respond to changes in clinical practice, for

example AR-DRG V9 still does not address the use of Neurocoils, which are not discernible from less invasive cranial procedure and are therefore supplemented as localisation in the Queensland Activity Based Funding (ABF) model.

Sunshine Coast HHS reiterated Gold Coast HHS's comments that coding needs to keep up with technological advances and therefore be relevant clinically. The HHS noted that a biennial cycle aligns with the edition changes for the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM), Australian Classification of Health Interventions (ACHI) and ACS, however, unfortunately recent cycles have struggled to meet the tight timeframes. HHS staff have been advised that the current edition under development (ICD-10-AM 11th edition) will possibly be extended to five years which means the DRG versions will change but ICD-10-AM, ACHI classifications and ACS may not. The HHS has concerns with this approach and suggested any timeframes for new AR-DRG versions should coincide with the coding classification changes to maximise the investment of each development cycle.

Statistical Services Branch in the Department supported the biennial review cycle as this allows for the inclusion of new ACHI interventions to be included in alignment with national reviews of the Medical Benefits Scheme (MBS) for example the reviewing being conducted by the Oncology Clinical Committee.

The Funding and Costing Unit of the Department considers the current pace of change for major revisions too rapid. The current investigation of the impact of moving to AR-DRG V8 from AR-DRG V7 whilst in the process of implementing AR-DRG V9 would suggest that the current development cycle does not enable the consequences of version changes to be measured and evidenced based conclusions drawn. The reason for the longevity of AR-DRG V5 was the use of minor releases (i.e. V5.1 and V5.2). This allowed updates to incorporate new ICD-10-AM codes while preserving the underlying structure. IHPA should consider at least one minor version update between major version updates.

It is noted that a longer window would allow more time for the education and training of clinicians and coders and update in systems, i.e. grouper changes with each AR-DRG version, in both public and private health sector.

Queensland has developed and applied a series of localisations to the jurisdictional funding model to compensate for AR-DRG classification failures (i.e. the existence of a cohort within an AR-DRG with significantly different costs for example Neurocoils). These localisations must be recalibrated each time the AR-DRG version changes. The process requires submissions from sites with a detailed comparison of actual cost versus ABF revenue; to facilitate this a full year of data grouped to the AR-DRG version with corresponding National Hospital Cost Data Collection (NHCDC) data must be available. If there are only two years between each major AR-DRG version, a new major version will be in use before the localisations can be recalibrated and updated for the Queensland funding model.

Summary

The Department recommends that IHPA considers Townsville HHS's proposal for future iterations of the ACS that, guidance around the timeframe of care or course of treatment administered should be introduced to provide consistent guidance for clinical coders on when a condition is recognised as "significant" and appropriate for coding as an additional diagnosis. Additional diagnoses should also be interpreted as conditions that affect patient management in terms of requiring any of the following:

- commencement, alteration or adjustment of therapeutic treatment;
- diagnostic procedures; or

- increased clinical care and / or monitoring.

Across Queensland stakeholders there is broad support for phasing out older AR-DRG versions however it is recommended that IHPA consider the impact on Private Hospitals and subscription organisations (e.g. Health Roundtable) before making any changes. It was suggested that there may be some merit is retaining AR-DRG V5 which has the longest contiguous usage of any version.

Whilst many responses supported the current two-year cycle to support changes in clinical practice, significant concerns were raised around longitudinal analysis and unforeseen implementation issues. The Department recommends that IHPA consider modifying the development cycle to include at least one minor version update between major version updates.

The Department also suggests that IHPA consider establishing interactive workshops to increase the investment in training and education.

4.3 Australian National Subacute and Non-Acute Patient Classification

Consultation Question:
5. What areas should be considered in developing Version 5 of the Australian National Subacute and Non-Acute Patient classification?

Sunshine Coast HHS provided the following feedback:

- The Functional Independence Measure (FIM) Activity of Daily Living (ADL) tool used for the Australian National Subacute and Non-Acute Patient (AN-SNAP) classification must be refined / streamlined without loss of specificity in the data. A reduction in time to use the FIM tool and the ongoing costs of re-accreditation is an inhibitor to the accurate classification of SNAP patients. Assessment tools should also be simplified for use in non-specialised units.
- SNAP care delivered in alternative care settings such as same day recurrent (day hospital) episodes for subacute care and hospital in the home episodes (HITH) for subacute should be consider in the development of AN-SNAP V5. These care settings support cost effective, non-admitted care for rehabilitation, geriatric evaluation and management and palliative care in the home, with equivalent intensity of rehabilitative input however are not adequately represented in the classification and therefore the funding model.
- The classification model should be assessed based on how well it reflects resource need according to evidence based practice / outcomes versus historical resource use.

The Funding and Costing Unit of the Department noted that the collection of AN-SNAP data has been problematic in Queensland for several years, primarily due to difficulties in meeting the National Minimum Data Set (NMDS). Whilst those problems have been overcome, it should be noted that this required a significant investment in information technology (IT) systems and staff training, and any change in the data requirements should always be justifiable in terms of cost versus benefit. This also applies to other classifications, particularly non-admitted.

Whilst the statistical performance of the rehabilitation care type is excellent, the performance of the remaining care types leaves much to be desired. It is possible that a simpler classification may have superior performance. For many years, Queensland used a care type per diem classification, split by

overnight and same day. The Department recommends that this should be the benchmark for any changes to the AN-SNAP classification i.e. they must improve on this to be accepted.

The current AN-SNAP V4 classification includes non-admitted / ambulatory classes, although these are not priced. IHPA uses the Tier 2 Non-Admitted Services classification for non-admitted patients and is developing the Australian Non-Admitted Care Classification (ANACC) which is a more patient centric classification. Depending on the progress and timeframes for implementation of the ANACC, it may not be worthwhile to have non-admitted / ambulatory classes in AN-SNAP V5, however as noted by the Sunshine Coast HHS alternate care models should be explored in any new classification development and must also be appropriately priced in the funding model. Another consideration is how the collections may integrate and whether ADL scores for non-admitted patients undergoing a long-term series of treatments (e.g. same day rehabilitation) could be incorporated into the ANACC.

The grouping process for AN-SNAP V4 initially references the care type and then derives the next level of the classification based on a same day flag. However, local data variance investigations have concluded that the same day flag appears to be independent of the actual length of stay and is based on the episode rather than the phase. This means that a same day phase within a palliative care episode can be grouped to an overnight AN-SNAP V4 class. The Department recommends that the AN-SNAP V5 grouping methodology reference the actual length of stay within the phase rather than an episode specific data element.

Mental Health Branch advised that the unit supports the review of the alignment issues of psychogeriatric care however any changes must be discussed with the Mental Health Information Standing Strategy Committee (MHISSC) and the Mental Health Principal Committee (MHPC), in addition to the IHPA working groups. The Department supports this position and recommends that IHPA ensure appropriate consultation with these fora.

The Department recommends that IHPA conduct a detail review of the FIM ADL tool as part of the AN-SNAP V5 development so the process can be refined / streamlined without loss of specificity in the data. The Department also recommends that the classification consider alternative care settings such as HITH and how the classification will integrate with other priorities including the ANACC; this analysis will better inform decisions regarding whether non-admitted / ambulatory classes should be part of the AN-SNAP classification.

4.4 Tier 2 Non-Admitted Services classification

Although there were no specific consultation questions related to the Tier 2 Non-Admitted Services classification, a number of respondents provided feedback to the content outlined in the consultation paper:

- The Funding and Costing Unit noted that there are structural issues with the current Tier 2 Non-Admitted Services classification due to differences between the medical officer (20.xx series) and other health provider (40.xx series) clinics. In the current classification, not all medical officer led clinic types exist in the other health provider series, and vice versa. Whilst this is acceptable for some clinic types including allied health and midwifery clinics, there are others such as Cardiac Rehabilitation (40.21) where an equivalent medical officer clinic would be valid. However, given the limited life of the Tier 2 Non-Admitted Services classification, it is unlikely worthwhile addressing this issue.
- The Department supports the splitting of the Home Ventilation clinic into differing levels of intensity, and also recommends that IHPA consider a further split for paediatric patients. The Department has

supplied data to IHPA showing that the costs for paediatric patients are significantly higher than those for adults and would welcome the opportunity to explore this further.

- Queensland stakeholders shared different opinions on the collection and pricing for multidisciplinary case conferences (MDCC) where the patient is not present. CIRCS support this collection however Darling Downs HHS advised that clinicians spend significant time planning patient care and treatment in the absence of the patient and questioned why if MDCCs where the patient is not present are shadow priced, then why not all services provided for patients without their being present? The Funding and Costing Unit noted that Queensland provided comprehensive feedback as part of the jurisdictional response to the 2018-2019 consultation paper on this topic. The feedback stated that the jurisdictional anticipates that a limited number of hospitals will collect this information which will compromise the state being able to provide sufficient cost data to support a robust price for this clinic.
- The Department supports the move away from aggregate non-admitted data to unit record and has established a centralised data collection to achieve this. The state continues to collect aggregate data via the Monthly Activity Collection (MAC), for performance reporting and funding determinations and to compare the differences between the patient-level and aggregate collections. To enable HHSs to monitor and resolve variances between the collections, the Department has produced a Qlikview dashboard for use by the sites. The differences between the two collections have decreased over time and the Department has committed to funding HHSs on unit record data from 2019-20.

  Whilst the Department supports the development of ANACC, the jurisdiction has reservations regarding the capacity of information systems and clinicians to collect additional data items such as non-admitted diagnoses and procedures. Any IT system modifications to collect additional data elements is a major exercise which should be subject to a cost benefit analysis. Jurisdictional health funding is limited so despite a potential improvement in a classification if the investment required to enhance existing systems or introduce new applications comes at the expense of patient care, the costs cannot be justified and this will not be considered a priority.

4.5 Emergency care classification

Although there were no specific consultation questions related to the Emergency classification, a number of respondents provided feedback to the content outlined in the consultation paper:

- Gold Coast HHS noted an internal issue with the utilisation of the Systematized Nomenclature of Medicine -- Clinical Terms (SNOMED CT) within their Emergency Department (ED). The HHS commented that the provision of an interoperability tool by IHPA between ICD-10-AM and SNOMED CT has been positively received.
- The Department supports the classification developments currently being progressed by IHPA which includes the Emergency classification. As noted above in relation to the ANACC, the jurisdiction has reservations regarding the capacity of information system to collect additional data elements, the subsequent cost of application changes and conflicting priorities with patient care initiatives.
- The Funding and Costing Unit advised that the recent decision to restrict ED ICD-10-AM codes which can be submitted as part of the Non-admitted patient emergency department care NMDS to those in the IHPA shortlist may cause issues with the jurisdictional activity data submission. Whilst mapping tables have been provided, approximately 500 of the codes currently used in Queensland (which account for approximately thirty per cent of ED activity) are not in the mapping table and will therefore not comply with the new requirements. This issue has been escalated to IHPA through the Technical Advisory Committee (TAC).

- The Department welcomes the smartphone application currently in development by IHPA to facilitate ED data collection for an ED costing study. The Department recommends that as part of this initiative that integration with existing ED information systems be a priority to enable the application to be used beyond the costing study for long term data collection benefits.

4.6 Teaching, training and research

Although there were no specific consultation questions related to the Teaching, training and research (TTR) classifications, a number of respondents provided feedback to the content outlined in the consultation paper:

- The Funding and Costing Unit noted that Queensland provided comprehensive feedback as part of the jurisdictional response to the 2018-19 TTR consultation paper on this topic. The Department supports IHPA's objective to expand the scope of ABF models to provide funding clarity and increase the transparency of allocations however the jurisdiction remains cautious regarding whether this model will be effective, with the largest component of teaching and training (embedded) out of scope of the collection. The driver for TTR appears to be a desire to better explain cost differences between teaching and non-teaching hospitals which is not reflected by their Casemix complexity. Queensland has developed several patient centric localisations in its jurisdictional model to compensate for classification failure, and can therefore show that this explains the majority of those differences
- The 2018-19 consultation paper feedback also stated that the Department considers the universities best placed to provide the student placement data required for the TTR collection. IHPA has previously indicated that it is not appropriate for the organisation to engage directly with the universities however the Department reiterates the jurisdiction's previous comments that IHPA is well positioned to facilitate national level fora between the universities, states and territories to progress this issue. More recently, the Department provided feedback on the Hospital teaching, training and research activities (HTTRA) National Best Endeavours Dataset (NBEDS) 2019-20 and raised concerns regarding the Area of Clinical Focus and Health Professional Trainee Level of Education Qualification.
- Queensland stakeholders have also expressed reservations regarding the workload associated with data collection requirements, the quality of available information and whether any demonstrable benefits will be delivered through participating in this collection. Queensland will diligently work towards meeting all jurisdictional data submissions however until IHPA can prove the robustness and completeness of the classification, the Department cannot support developing a pricing model for this cost component.

4.7 Australian Mental Health Care Classification

Although there were no specific consultation questions related to the Australian Mental Health Care Classification (AMHCC), following is the Department's feedback regarding the content outlined in the consultation paper:

- The Department supports the development of the AMHCC but notes the issues with Phase of Care. Considering this issue, the jurisdiction is concerned that it may be several years before the AMHCC is sufficiently robust for funding purposes. The Department looks forward to the results of the analysis that IHPA has proposed to conduct using NHCDC Round 21 cost data (2016-17) which is the first year that cost data has been submitted that includes AMHCC criteria.

- The Department recommends that IHPA consider benchmarking any funding models derived from the AMHCC with the Queensland mental health funding model. Mental Health funding in Queensland is based on a per diem model split by same day and overnight, and the clinical unit type (e.g. Adult Acute, Child and Adolescent, Community Care Unit etc). This is simplistic but has proven robust and a good reflection of costs.

5. Data collection

Consultation Questions:

6. Should access to the public hospital data held by IHPA be widened? If so, who should have access?
7. What analysis using public hospital data should IHPA publish, if any?

Darling Downs, Gold Coast, Sunshine Coast and Townsville HHS and Patient Safety and Quality Improvement Service (PSQIS) collectively support access to the public hospital data held by IHPA be widened. The stakeholders stated that as a minimum contributing facilities and researchers affiliated with recognised institutions should be granted access. The HHSs did stipulate the suitable safeguards would need to be in place to ensure confidentiality of patients and data custodians within each jurisdiction should be involved in access approvals; the Queensland Health Legal Unit suggested that IHPA conducts a privacy impact assessment process to consider and address any potential privacy, confidentiality and data security implications.

Townsville HHS commented that the National Benchmarking Portal (NBP) is a useful tool for national benchmarking as it expands on established statewide performance indicators and enables broader nationwide analysis, however the HHS stated the following limitations:

- there can be differences in coding / data collection / counting and classification across the jurisdictions that can influence the comparability of data; it should be noted though that this can be useful to identify where there is divergence in practice; and
- access to recent data to influence decision making and timeliness of updates.

There are several national entities that hold a range of health service data, in addition to the public hospital data. Mental Health Branch and Statistical Services Branch suggested that questions of access and facilitation of access to be managed through one such agency, not multiple agencies. The Australian Institute of Health and Welfare (AIHW) would seem more uniquely capable of managing issues of access, linkage and sub jurisdictional reporting etc. There are currently a number of duplicated similar dataset requirements which places additional workload on jurisdictions and slight differences in data definitions and scope between similar datasets also creates confusion and potentially leads to misinformation. A coordinated approach to collection and dissemination may mitigate some of these issues.

The Department supports access to the public hospital data held by IHPA be widened, provided that patient identifiers are not available and there are caveats over the comparability of the data. The Department recommends that data should be made available to appropriate entities including researchers in recognised institutions. The Department suggests that IHPA investigates centralising information release processes with other agencies such as the AIHW however data custodians within each jurisdiction must be involved, or at a minimal made aware of, access approvals.

Darling Downs, Gold Coast, Sunshine Coast HHSs and PSQIS provided the following feedback regarding analyses IHPA should publish / commission:

- any analysis undertaken by external bodies using IHPA data should be published on the site; it would also be beneficial if contributing sites were able to submit comments (following review);
- facility level analysis on high volume common surgical and medical AR-DRGs would be useful and could assist with driving process benchmarking and identifying best practice;
- standardised direct costs of the top ten nationally most common operations (e.g. laparoscopic cholecystectomy, appendicectomy etc) could be published publicly for individual public hospitals to encourage price convergence and promote public transparency; and
- other analyses suggested included: health care cost trends, performance against specific healthcare policy (e.g. Closing the Gap) versus investment, cost effectiveness of health care interventions, chronic disease and the associated costs to drive healthcare policy and evidence of improvement in quality of patient care as a result of funding adjustments.

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

6.1 Technical improvements

Consultation Questions:

8. What are the advantages and disadvantages of changing the geographical classification system used by IHPA?
9. What areas of the National Pricing Model should be considered as a priority in undertaking the fundamental review?
10. Should IHPA consider any further technical improvements to the pricing model used to determine the National Efficient Price for 2019-20?

Regional population statistics reported by the Australian Bureau of Statistics (ABS) show that 51.1 per cent of the Queensland population reside outside of the major capital city; this is 18.4 percentage points above the National average of 32.7 per cent (http://stat.abs.gov.au/itt/r.jsp?databyregion&ref=CTA2). Therefore, Queensland stakeholders support the alternative remoteness classification review in preparation for NEP19 and NEC19 because, as noted in the consultation paper, remoteness is a significant cost driver for the provision of public hospital services and it is important that this funding model adjustment be fair and equitable to jurisdictions they provide care to higher numbers of patients from rural and remote regions.

The Department also recommends that IHPA considers the following responses from stakeholders in the alternative remoteness classification review:

- Gold Coast HHS stated that the proposed alternative methodology has benefits in terms of clarity of calculation, however it is difficult to determine the effectiveness of the change without more information and with comparison of how well this aligns with actual cost differentials associated with remoteness.
- Sunshine Coast HHS noted that the most current and commonly used index for measuring rurality is the Modified Monash Model (MMM); any review should also research this model as an alternate option.

Darling Downs and Sunshine Coast HHS provided feedback regarding areas of the National Pricing Model that should be considered as a priority in undertaking the fundamental review. Darling Downs HHS raised concerns regarding the absence of non-hospital generated transportation costs in the NHCDC. In Queensland, ambulance road and fixed wing transport costs can be assigned to patients that receive these services and travel subsidy scheme costs (bus and train) will also be patient attributable very soon. For many patients, ambulance transport costs are significant, and are borne by the treating facility. The HHS proposed that these costs should be included and distinguishable within the NHCDC submission, and in the AR-DRG price weights.

The Department has recommended through previous consultations and the annual *General List of in-Scope Public Hospital Services and Legitimate and Unavoidable Cost Variations* application process that IHPA commission a study into pricing for patient travel. The Department acknowledges that patient travel costs are directly attributable to geographical population patterns which are beyond the remit of an activity based pricing framework. However, mechanisms are now available through the NHCDC patient travel line item and Non Patient Products, to investigate this cost driver. Patient travel accumulates a significant portion of jurisdictional cost and commissioning a study to understand these costs offers the opportunity to create a pricing framework that ensures appropriate levels of funding to support equitable access for patients to necessary treatment.

Sunshine Coast HHS proposed that the independent review should focus on reviewing and refining the methodology for price weight setting and the calculation of the reference cost. The HHS stated that using the most current statistical techniques is essential and a list of recommendations for use in the NEP development that could be circulated to jurisdictional stakeholders would be helpful; this would support the pricing guideline of maintaining transparency in the model.

Queensland stakeholders suggested a number of technical improvements that IHPA should consider for the pricing model used to the NEP:

- Although not a technical improvement, Darling Downs HHS suggested that there should be an explicit statement or caveat in the NEP determination document that describes costing challenges that will impact the quality of price calculations, for example many existing IT systems do not have the capacity to record direct clinical time and clinician pay scales, which limits the accuracy of patient costing.
- Darling Downs HHS also suggested that the management of ancillary costs should be assessed as comparisons with national data suggest that some ancillary costs such as blood products are not being allocated at the patient level in all jurisdictions.
- Gold Coast HHS expressed concerns regarding the L3H3 method used for determining long and short stay outliers for acute episodes. The HHS commented that the current methodology does not have any statistical basis and results in issues with the determination of long stay per diem outlier rates. It was noted that the application of a consistent approach year to year is cited as a positive, however the HHS advised that there are other more statistically robust methods that also offer year-on-year stability.
- Gold Coast HHS also stated that back-casting revenue to enable longitudinal analysis can be problematic for HHS staff. ABF teams are familiar with comparing clinical coding and cost data against previous years however there are challenges with revenue comparisons due to the absence of an agreed method for back-casting.
- Sunshine Coast HHS proposed that IHPA review localisations that state and territory authorities have implemented in the administration of their localised ABF models to assess whether these should be applied at a national level.
- Townsville HHS noted that there limited financial incentive for managers to improve efficiency due to the time lag between changes in clinical process becoming evident in the NHCDC data used to inform

the NEP, and the effect of trimming and other exclusion methodologies applied as part of the cost data transformation process.

The Department supports the stakeholder feedback and specifically recommends that as part of the fundamental review of the National Pricing Model, IHPA:

- commission a study into pricing for patient travel;
- focus on reviewing and refining the methodology for price weight setting and calculation of the reference cost and socialise any recommendations to jurisdictional representatives for input;
- consider more robust statistical techniques for setting the AR-DRG acute trim points than L3H3;
- develop a standard methodology for back casting revenue to facilitate longitudinal comparisons; and
- review any jurisdictional localisations for possible incorporation into the national model.

6.2 Adjustments to the National Efficient Price

Consultation Questions:

11. What are the priority areas for IHPA to consider when evaluating adjustments to NEP19?
12. What patient-based factors would provide the basis for these or other adjustments? Please provide supporting evidence, where available.
13. Do you support price harmonisation for the potentially similar same-day services which are discussed above?
14. What other services, which can be provided in different settings of care, could benefit from price harmonisation?

The Funding and Costing Unit advised that Queensland is in the process of finalising a Statewide Neonatal Services Plan, that will explore the feasibility of separating the funding for unqualified babies from the mother's payment, this would result in a reduction in the ABF calculated revenue attached to the mother's episode of care but would independently recognise the care provided to the unqualified baby. Historically, funding for unqualified babies has always been part of the mother's episode; this practice originated from the private hospital insurance funds however should be reconsidered with the advances in patient costing systems.

Another consideration proposed by the Funding and Costing Unit for neonatal funding, is unbundling neonatal intensive care unit (NICU) funding from the neonatal AR-DRGs. The current approach overfunds qualified babies that have not received NICU care and underfunds those that have. IHPA NBP data shows that overall the neonatal AR-DRGs are adequately funded, however at an individual patient level, those babies with NICU services are not; this creates unnecessary variances in the funding model. Unbundling NICU from neonatal AR-DRGs would be consistent with the current treatment of intensive care unit (ICU) funding, which in earlier pricing models was embedded in the AR-DRG price for some AR-DRGs however was removed and established as adjustment based on ICU hours from NEP15.

The Department recommends that IHPA review funding for neonatal services to explore separating funding for unqualified neonates from the mother's payment and unbundling the NICU component for neonatal AR-DRGs.

The Department supports the Northern Territory's recommendation that adjustments be standardised between delivery settings. Previously it has not been possible to apply adjustments across all service streams due to the absence of patient level data, however with all IHPA collections derived from clinical interventions being patient based from 2019-20, this can now be achieved from NEP19. Darling Downs HHS noted that additional patient based factors that could provide the basis for other adjustments include diagnostic results outside normal ranges and measures of treatment risk, however unfortunately many patient characteristics which influence treatment costs are not available in existing information systems, for example socioeconomic status, family support network etc.

Darling Downs, Gold Coast, Sunshine Coast and Townsville HHSs collectively stated their support of the prospect of price harmonisation where there is evidence that the cost of the care is the same across similar settings. However, nothing that harmonisation needs to be coupled with clearer direction and consistency at the national level on the best practice delivery setting so that there is congruousness not just in pricing but counting and classification. Consideration should also be given, when harmonising, to the embedded cost of care for patients who receive treatments whilst admitted for a different principal diagnosis, for example, renal dialysis. The Department supports this position and reiterates the importance of clearer direction at the national level on the best practice delivery setting for interventions that can be performed in an admitted or non-admitted capacity to support standardisation across jurisdictions.

Services that were not specifically identified that could currently benefit from harmonisation include endoscopy, interventional cardiology and radiation oncology. Gold Coast HHS noted that with evolving technology the volume of surgical procedures that can be performed in a non-admitted setting will continue to increase (see link from John Hopkins https://www.hopkinsmedicine.org/healthlibrary/conditions/surgical_care/outpatient_surgery_85,P01404).

6.3 Shadow implementation periods

Consultation Question:
15. When should IHPA implement a shadow period for ABF classification systems and the National Pricing Model?

Queensland stakeholders generally supported IHPA's approach to shadowing, however there were mixed comments as follows:

- Darling Downs HHS fed back that shadow implementation periods should never be implemented and changes should only be introduced when thoroughly tested and demonstrably robust.
- Gold Coast HHS supported IHPA's assertion that shadow periods are not necessary when the existing historical data is robust.
- Sunshine Coast HHS proposed that IHPA should implement a shadow period of at least one year when new ABF classification systems are introduced or when the change will result in a major change to the National Pricing Model. This shadow period will enable IHPA to collect and verify the data and assess the impact of the change, however where there is a new version of an existing classification a shadow period is not necessary as improvements in the ABF model may be delayed.

- Townsville HHS suggested that the length and use of a shadow period should depend on the significance of the change and the processes required to adopt it. For example, as noted in the paper, the introduction of bundled pricing would require significant investment in IT system resources to be able to move towards one unique patient identifier. IHPA should recognise that there is an embedded and significant cost associated with some of the proposed changes. Shadowing allows time to prepare but does not answer the question of how implementing the change would be resourced from within limited hospital budgets.

  Townsville HHS advised that the shadow year is most useful when guidance and data is made available early on during the period. The usefulness of the shadow year for hospital acquired complications (HACs) has been limited, due to changes to the criteria, errors in the calculator, and lack of clarity over how the funding impact would be transacted.
- CIRCS recommend that a prospective shadow period of six months should be implemented at the start of a new financial year (1 July) or mid-financial year (1 January).
- The Funding and Costing Unit noted that IHPA highlighted in the consultation paper that it does not intend to shadow new AR-DRG classification versions. This is on the basis that reporting of admitted data using the latest AR-DRG version would be delayed and as a result could not inform the development of the next AR-DRG version which occurs every two years (noting this cycle is being considered as part of the consultation). IHPA is currently undertaking an examination of the impact that the change from AR-DRG V7 to AR-DRG V8 has had on episode complexity, considering this it would appear reasonable to shadow version changes to reduce the disruption that any unintended consequences would have on Commonwealth funding determinations.

The Department generally supports IHPA's approach in relation to what changes should or should not be subject to a shadow period. The Department recommends that any that changes that require additional investment in IT systems be shadowed for longer periods of time and that shadowed data be made available as soon as possible to allow comprehensive impact analysis.

Although IHPA has indicated that new AR-DRG classifications will not be shadowed, the Department reiterates the response to the consultation question regarding the AR-DRG development cycle in section 4.2, that IHPA consider modifying the AR-DRG development cycle to include at least one minor version update between major version updates to mitigate unintended consequences of major version changes.

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

Consultation Question:
16. Do you support the proposal to phase out the private patient correction factor for NEP20?

There were limited responses from Queensland stakeholders to this consultation question, however replies received indicated that there was no opposition to IHPA phasing out the private patient correction factor for NEP20; the Department therefore supports the proposal. Darling Downs HHS noted that in Queensland the only component of private patient care not included in the NHCDC are pathology charges, billed to the MBS directly by an external provider.

8. Treatment of other Commonwealth programs

Although there were no specific consultation questions related to the treatment of other Commonwealth programs, the Department recommends that IHPA make the Commonwealth program data available to jurisdictions. Whilst the current policy is supported, the operational issue is that jurisdictions may not have access to this data at the unit record level which means cost versus revenue analysis cannot be performed.

9. Setting the National Efficient Cost

9.1 Overview

Consultation Questions:

17. What other models might IHPA consider in determining funding for small rural and remote hospitals?
18. What cost drivers should IHPA investigate for rural and remote hospitals for potential inclusion as adjustments in the NEC?

Darling Downs, Sunshine Coast and Townsville HHSs supported a "fixed plus variable" model to determine funding for small rural and remote hospitals, however this support was accompanied by a mixture of additional comments from the HHSs:

- Darling Downs HHS stated that the variable component should be defined using a simplistic bedday, clinic and ED presentation count however it is unlikely that this approach will drive technical efficiencies in small rural hospitals.
- Sunshine Coast HHS commented that a "fixed plus variable" model would be more transparent, meaningful and easy to administer than a modified ABF approach. Block funded facilities would have more incentives to find efficiencies in the system and deliver more services through funding for specific activity levels rather than being fixed into volume groupings.
- Townsville HHS suggested that the model should also recognise incremental costs where there is growth in services or delivery. This would incentivise hospitals to deliver care locally; the extra cost could be recognised through additional funding against an activity-type, as opposed to shifting the activity to regional centres under hub and spoke models. A baseline funding and commensurate activity level should be set in a shadow year (block on the basis of minimum staffing and resourcing) based on historic cost and activity, and access to an incentive funding environment to recognise growth in services, would make funding more equitable.

Central West HHS suggested a combination of the modified ABF approach with additional adjustments, and a "fixed plus variable" model. The HHS commented that the current ABF allocation should be adjusted to include additional costs associated with service provision, eroding the service provision differential for logistics, patient transport, staff retention, staff accommodation, and then once the baseline is normalised, the "fixed plus variable" model should be applied.

The Funding and Costing Unit noted the following concerns with the current NEC model:

- use of the Public Hospitals Establishment Collection (PHEC) to establish the annual costs;
- inappropriate exclusion of "out of scope" costs;

- exclusion of work in progress activity (which can be a major component); and
- volatility in the volume group assignment.

It is acknowledged that cost data requirements have changed and patient costing rather than general ledger data is used to derive the NEC, the NHCDC should be used as the primary cost data source rather than the PHEC. NHCDC data is more complete and likely to include the cost of visiting specialists funded from ABF hospitals that do not record the remote hospital activity. In this situation, the ABF hospitals will retain the cost but not have the activity and subsequently appear less efficient, and the remote hospital costs will be artificially low.

The exclusion of “out of scope” activity and work in progress patients has adversely affected the NEC determination for several small Queensland hospitals. The NEP determination includes provisional weights for very long stay patients and these should be used to calculate the National Weighted Activity Units (NWAU) for work in progress patients.

Central West and Sunshine Coast HHSs nominated the following cost drivers that IHPA should investigate for potential inclusion as adjustments in the NEC:

- logistics;
- patient transport;
- staff retention;
- staff accommodation;
- maintenance;
- energy; and
- any variances in cost input for both labour and non-labour expenses.

Darling Downs HHS noted that treatment costs are less related to NWAU for the episode than to length of stay of the patient for rural hospitals. Costs are predominantly labour, and the labour required is dependent upon actual bed occupancy, ED presentations and outpatient appointments. The cost of rural hospitals is driven by unweighted volume rather than by weighted activity.

The Department welcomes the review of funding for small rural and remote hospitals and will continue to work with IHPA through the Small Rural Hospital Working Group to progress this initiative. The Department supports the proposed “fixed plus variable” model, noting the refinements proposed by Queensland stakeholders including an adjusted baseline that considers the abovementioned additional costs for service provision. The Department recommends that IHPA evaluate both weighted and unweighted activity measure to inform the variable funding component. The Department also recommends that IHPA consider transitioning from using the PHEC as the source data for the NEC determination to the NHCDC and applying the published provisional weights for very long stay patients to work in progress activity; these changes will improve the accuracy of the NEC and NWAU attributable to small rural and remote hospitals.

9.2 Block funded services

Although there were no specific consultation questions related to the block funded services, following is the Department’s feedback regarding the content outlined in the consultation paper:

- The Department supports the current approach of block funding services for which no robust classification and pricing exists, and the IHPA objective to continue this arrangement until ABF

classification systems are implemented and used for pricing these services. In relation to converting block funded services to ABF, a criterion should be that the new classification and pricing adds value to the management and delivery of health services. As noted in section 4.6 (teaching, training and research), Queensland stakeholders have also expressed reservations regarding the workload associated with TTR data collection requirements, the quality of available information and whether any demonstrable benefits will be delivered through participating in this collection.

- As noted in section 4.4 (Tier 2 Non-Admitted Services classification), the Department supports the splitting of the Home Ventilation clinic into differing levels of intensity, and also recommends that IHPA consider a further split for paediatric patients.

10. Innovative funding models

10.3 International funding models

Consultation Question:
19. What countries have healthcare purchasing systems which can offer value in the Australian context and should be considered as part of the global horizon scan?

Darling Downs HHS stated that any change in the current Commonwealth funding / state funding / private insurance landscape will be a challenge for IHPA in the current environment. The HHS commented that public health systems in Australia are amongst the best in the world in terms of universal access, cost and efficiency; the Pharmaceutical Benefits Scheme (PBS) is an exemplary system where the Commonwealth acts as a single purchaser for pharmaceuticals at very reasonable prices for health care providers. However, where issues arise is in the interface between the private sector, the public sector and MBS billed primary care. While specialist consultants can earn far higher incomes in the private sector, and there is no regulation on the “out of pocket” gap fees which underpin this income, public access to specialist treatment services will be restricted. This leads to long public hospital wait times and higher healthcare costs overall. This is exacerbated by the public subsidy of the private system, where taxpayers fund all public health services plus thirty per cent of private hospital health services. In countries where there is a single provider (for example the National Health Service (NHS) in Britain) this is less pronounced however long waits and restricted access to specialised treatment still occurs.

Gold Coast HHS suggested that IHPA should consider Britain as part of the global horizon scan, specifically the Payment by Results (PbR) model. PbR is a system of paying NHS healthcare providers a standard national price or tariff for each patient seen or treated. The use of multiple groupers for different purposes to facilitate back-casting is effective and could provide value in the Australian setting. The HHS also suggested that it would be worthwhile to review the Canadian healthcare purchasing system; this is an interesting system as each province tends to utilise a different funding method.

Sunshine Coast HHS responded that only countries with comprehensive free public health should be considered in the horizon scan, to ensure comparability to the Australian environment. The HHS also noted that healthcare purchasing systems should also be reviewed in the context of the availability of data and IT infrastructure to support the implementation of such models. These are challenges that could be identified by investigating how the funding system works in practice and what systems are required to underpin the funding models.

Mental Health Branch suggested that IHPA consider the German healthcare purchasing system for the global horizon scan. The branch recalled that at the 2016 IHPA ABF Conference one of the key-note speakers Dr Frank Heimig (Plenary 5) presented a "bundled approach" used for various specialties (http://abfconference.com.au/2016-conference-videos/). Dr Heimig described a bundled approach for mental health care where acute community is packaged with the acute inpatient treatment in the days following care for people that are not going to be "on-going" consumers of the service.

eHealth Queensland proposed a number of factors associated with evolving health technology for IHPA's consideration as part of the global horizon scan:

- Into the future, health service funding must support the changes to health service provision which are enabled by digital health (telehealth, eConsultations etc). For example, the definition of non-admitted services notes that it is independent of the service setting in which they are provided (e.g. at a hospital, in the community, in a person's home etc), however currently evolving delivery methods including email, are not in scope for reporting or funding.
- Bundled payments for innovative funding programs are mentioned in the report, and it will be important that these can effectively react to new developments to support better patient care and outcomes. For example, these could be used to fund an application to monitor a patient, or eConsultations to avoid a patient requiring hospital treatment. The use of technology to both provide and support patient care will need to be analysed in relation to funding. For example, where a hospital is needing to develop and train artificial intelligence (AI) to better predict patient needs, which may change how and where patient care is provided.
- Some of the future population based predictive analytics work from other countries (e.g. the United Kingdom) is using health and other data sources to delve into the health of populations to target those at greatest risk (i.e. Healthy Wirral). These sorts of initiatives will become more common to prevent hospitalisations, so it will be important to understand how these types of initiatives will fit within funding frameworks and it is suggested that this be included in the international scan.

The Department recommends that IHPA include countries that have successfully implemented bundled funding into their healthcare purchasing system in the global horizon scan. Although IHPA did not progress with bundled funding for maternity care, IHPA should further examine the concept of bundled funding for specific patient groups, nominated by jurisdictions, to give the states and territories the flexibility to develop innovative models of care without being deterred by pricing models based around traditional care settings. Any pilots should be conducted in parallel with existing funding arrangements to assess the benefit to enrolled patients and the financial impact. It is also important to shadow any bundled funding packages to ensure transparency, continuity of information for transitioned services, and for assurance that the activity can be isolated and therefore not potentially funded via both ABF and an alternate funding mechanism.

It is important to consider health technology innovations and the availability of data and IT infrastructure. The Department reiterates the eHealth comment that the use of technology to both provide and support patient care will need to be analysed in relation to funding.

11. Pricing and funding for safety and quality

11.4 Avoidable readmissions

Consultation Questions:

20. Do you agree with the proposal that pricing and funding models for avoidable hospital readmissions should be based on readmissions within the same Local Hospital Network (either to the same hospital or to another hospital within the same Local Hospital Network)?
21. Do you prefer an alternative scope for measuring avoidable hospital readmissions and, if so, how would this be measured?
22. What evidence or other factors have informed your views?

Queensland stakeholders collectively responded that there is currently limitations in the ability to expand the scope of readmissions beyond the same hospital or hospitals within the same Local Hospital Network (LHN) that share the same Patient Master Index (PMI). A major challenge is the lack of unique patient identifier across multiple facilities. The following is a summary of comments:

- Darling Downs HHS noted that readmissions may occur across facilities as patients that have received poor clinical treatment may be reluctant to return to the same facility for further treatment.
- Gold Coast HHS stated that mechanism for reimbursing an HHS incurring costs for an avoidable readmission from an initial admission at another HHS is potentially complex however once there is a consistent means of identifying patients across multiple LHNs, any solution should be applied nationally to allow the tracking of avoidable hospital readmissions across multiple LHNs and between states.
- Sunshine Coast HHS commented that around eight-five per cent of avoidable readmissions occur within the same LHN.
- Townsville HHS advised that the integrated Electronic Medical Record (ieMR) Program is being implemented across Queensland. This will enable patients to be identified across LHNs however only major hospitals are part of the initial transition, for example Townsville Hospital has the ieMR, but many of the small rural hospitals within the HHS continue to use paper-based medical records. The ieMR will support patient recognition across LHNs however significant resource investment in IT is required before the ieMR is a solution.
- PSQIS stated that changes in outcome measures cannot always be presumed to reflect changes in underlying outcomes, often they can simply reflect changes in reporting behaviour. The unit suggested that post-implementation of this strategy, to quantify adverse behavioural responses by LHNs to avoid penalties, IHPA should consider measuring:
  - if there is any increase in inter-LHN and interstate readmissions, for example instructing patients to present to sister hospitals in adjacent LHNs should follow up care be required;
  - the coding of urgency status “emergency”, for example has there an increase the “not assigned” or “not known / not reported” urgency status; and
  - whether there has been an increase in palliative care patients as this care type is excluded from the calculation.
- Statistical Services Branch provided the following feedback regarding the criteria:
  - Although the specialty exclusions for oncology, haematology, chemotherapy, dialysis, neonatal care and palliative care are appreciated, data analysis will be problematic. For example, based on the criteria it is appropriate to exclude an oncology patient with gastrointestinal metastases from gastrointestinal bleeding, however from a quality and safety perspective it may not be appropriate to exclude this cohort of patients from pressure injury or pneumonia measures.

  - Inter hospital transfers may need to be considered as another exclusion requirement, or establishing a “transfer” between facilities minimum time. For example, due to rural and remote distances, on occasion inter hospital transfers may take more than twelve hours.
  - Factors such as patient noncompliance also should be considered, especially in regard to hypoglycaemia and avoidable readmissions.

In relation to the scope, Sunshine Coast HHS stated that the current proposed scope should be implemented because broader applications of the definition will be subject to a level of scrutiny that will result in complex dispute resolutions. The measure of unplanned / avoidable readmissions has always been difficult to measure and benchmark due to a lack of definitions, so a defined list that prescribes more accurately the index and subsequent readmission conditions is a vast improvement. The overlap with HACs has been considered and addressed adequately.

PSQIS advised that it is difficult to comment on the scope without greater clarity from IHPA and the Australian Commission on Safety and Quality in Health Care (ACSQHC) on precisely how a “readmission” is defined. The unit cited the following as areas which are currently unclear:

- How the index admission and readmission are related relative to the interval and fiscal year restrictions, i.e. is the count based on the start-date, the end-date or a combination? It would be useful if IHPA could quantify how sensitive counts are to these choices.
- How is the readmission related back to the index admission if there are more than one plausible proximate indexes? Relatedly, how are intervening readmissions treated (which may not be directly relevant)?
- How episode care type changes and transfers treated? Are these episodes included in the index admission?
- Are transfers counted as readmissions? As noted in the Statistical Services Branch comments above, it may be appropriate to establish a “transfer” between facilities minimum time.
- Has there been any consideration to inconsistencies between data capture at facilities, for example if only one facility (sending or receiving) records the patient’s episode as a transfer?
- How are “same-day” readmissions be treated, given the Admitted Patient Care (APC) NMDS does not include time information (hence some “readmissions” could in theory precede the index admissions such cases)?

Queensland facilities have been independently monitoring readmission rates for many years, and as a result are familiar with appropriate inclusions, exclusions, reporting criteria and patient management processes that will influence the results. Queensland stakeholders provided the following feedback regarding their experience with this metric:

- Gold Coast HHS cited extensive experience regarding the analysis of readmission rates, with associated discussions with clinicians and other experts.
- Sunshine Coast HHS proffered reporting readmission rates, and work to develop meaningful benchmarks.
- PSQIS noted that these are not academic questions. The unit provided the following link to United States (US) evidence that following US enactment of its Hospital Readmissions Reduction Program (HRRP) "nearly two-thirds of the reduction in national readmission rates was due to changes in coding practice", https://newsatjama.jama.com/2017/12/20/jama-forum-to-fix-the-hospital-readmissions-program-prioritize-what-matters/.

The Department recommends that IHPA assess inter hospital transfer as a potential exclusion requirement and factors such as patient noncompliance should also be considered, for example hypoglycaemia and avoidable readmissions. The Department also recommends that IHPA review the PSQIS feedback and enhance the technical specifications to address these queries.

Consultation Questions:

23. What are the advantages and disadvantages of use of the Medicare PIN and/or the Individual Healthcare Identifier for the purposes of pricing and funding of hospital readmissions?
24. What strategies can be used to overcome existing disadvantages for each of these approaches?

The Department welcomes the work IHPA has undertaken to integrate a unique patient identifier into reported datasets. The Department supports the use of the Individual Healthcare Identifier (IHI) as the most robust collection however noting that the ability to comply with reporting this data element varies across jurisdictions and as it is not feasible to capture the IHI at the point of data entry, data will need to be linked at the jurisdictional level and then disseminated to LHNs (which may require significant IT investment). It should be noted that the IHI can never be universal as some patient groups such as refuges and overseas tourists, will never have an IHI and considering this, the Department recommends that funding implications for patients without an IHI be clearly specified.

The Department notes that the legal authority for the use of the IHI for funding purposes needs to be definitively resolved and having this data element in reporting systems may require specific attention. The Department also recommends that IHPA investigate the accuracy of the matching using the IHI and provide statistics showing the number of patients who can be matched using this metric. It is also noteworthy that despite incorporating the IHI into reported data sets, the Medicare PIN is currently used for linking PBS and MBS activity.

Following is a summary of supplementary comments:

- Darling Downs HHS do not consider that the Medicare number alone is a robust unique identifier as the number is long (so is prone to data entry error) and the individual is identified by index number on the card, which is usually not recorded. The HHS noted that accessing IHI from the Commonwealth website is not a viable option for most facilities at the point of patient registration or admission / presentation.
- Gold Coast HHS commented that although the IHI was anticipated as the unique patient identifier, there is the opportunity for Australian residents to opt out. The HHS stated that any solution must be national as there will always be people who will not be identified consistently, and both the Medicare PIN or IHI will miss people. The HHS proposed that a national register be created which could return consistent identification for both Medicare PIN and IHI, which could potentially be used for tracking and would minimise those missed. For international visitors, it could utilise the nationality and passport number to provide identification (noting that Singapore has used this system). As identifier is used for linking across more than one HHS, it would not absolutely need to be available for constant querying, but might allow a batch update process.
- Gold Coast HHS noted that the IHI is potentially very useful for identifying patients across the trajectory of care to support bundled pricing. However, if this reaches the levels of usefulness that are proposed, then there needs to be consideration of a much tighter approach to the security of information within

the system. At the moment, it would be difficult for anyone to identify a patient from their PMI number without logging onto a system within the hospital however using a nationally available identification number would allow anyone outside the hospital with the right access to identify a patient, hence it requires much tighter security requirements.

- Sunshine Coast HHS and Mental Health Branch reiterated Gold Coast HHS's comments that not all patients have an IHI allocated, and Darling Downs HHS's comment that these attributes are not readily available to enable staff to replicate the data within local reporting solutions. The HHS commented that jurisdictions may already have data matching algorithms to uniquely identify patients and these options should be explored.
- Townsville HHS supported the introduction of the IHI into datasets to allow more integrated analysis and understanding of patient care across services, LHNs and states, noting that the main challenges to this would be:
  - upgrade of consistent and suitable patient administration systems (PAS) in each state or territory to allow data capture; and
  - significant investment in time and resource to convert existing PAS record numbers to new IHIs and managing a national directory.
- eHealth Queensland advised from a legislative perspective, section 14 (1) (line 5b of the table) of the Healthcare Identifiers Act 2010 will enable (Queensland Health as the healthcare provider) the use of the IHI for funding purposes. Section 14 indicates that the IHI can be disclosed under the circumstances where "the management (including the investigation or resolution of complaints), funding, monitoring or evaluation of healthcare". Although the legislation appears to enable this function, there will be a number of practical considerations (given the IHI is not a primary or mandatory identifier) that will need to be considered from a jurisdictional perspective, and should be explored further:
  - Queensland Heath treats some patients anonymously and these patients would not receive an IHI; the organisation must understand the implications of this on funding arrangements.
  - There are cohorts of patients that Queensland Health treats (refugees, overseas visitors etc) that do not have an IHI which may impact the use of IHIs to support funding models.
  - Further technical analysis is required to understand how the middleware used by Queensland Health to interact with the IHI service (the Queensland Health IHI Management Service (QIHIMS)) will integrate with other systems that collect data for funding purposes.
- PSQIS stated that any approach used by IHPA should be replicable within the jurisdictions and if this requires changes in federal law or regulations to give effect to states and territories being able to use identifiers then this should occur. PSQIS noted that the advantages of the IHI include being able to track the same patient across multiple hospitals and that the IHI captures activity more accurately / efficiently than linkage without its use. The disadvantages noted include incomplete coverage and that the IHI will likely be used deterministically, so matching may be rejected for trivial reasons, for example spelling mistakes or typographical errors.
- PSQIS commented that it may be necessary to draft new regulations under the Act to allow jurisdictions to use Commonwealth identifiers for safety and quality purposes and to monitor and improve healthcare services. The Act, s20 of the Healthcare Identifiers Act 2010 (Commonwealth) http://www8.austlii.edu.au/cgi-bin/viewdoc/au/legis/cth/consol_act/hia2010199/s20.html notes that identifier usage may be allowed under regulations "for purposes related to one or more of the following:
  - (b) determining whether adequate and appropriate healthcare is available to healthcare recipients, or a class of healthcare recipients; or

  - (c) facilitating the provision of adequate and appropriate healthcare to healthcare recipients, or a class of healthcare recipients".

  This could allow for State Health Authorities to use healthcare recipient identifiers to improve healthcare safety and quality generally. However, the regulations http://www8.austlii.edu.au/cgi-bin/viewdb/au/legis/cth/consol_reg/hir2010308/ currently do not appear to allow this (though they do allow access to provider identifiers, including for "monitoring or evaluation of healthcare" (also noted eHealth Queensland comments)). This inequity (compared to Commonwealth use of Medicare PINs) is arguably against patients' best interests, as it:

  - hampers states ability to conduct general safety and quality research using more accurate identifiers, thus reducing their ability to improve services; and
  - encourages duplicative efforts to replicate identifiers through probabilistic linkage, which achieves the same objective but at greater cost to taxpayers.

- Statistical Services Branch noted that the IHI is more reliable than the Medicare PIN, but the IHI should still be de-identified for data analysis.

Consultation Question:
25. Do you support the proposal to limit the measurement of readmissions to those occurring within the same financial year?

The majority of Queensland respondents favoured limiting the scope to the financial year, however there is a need to clarify the process where the index admission is in the prior year. The Department recommends that IHPA consider the MHISSC work under way on mental health related avoidable hospitalisation. Following are additional comments from Queensland stakeholders:

- Darling Downs HHS does not support the proposal to limit the measurement of readmissions to those occurring within the same financial year as a readmission is significant whenever it occurs and arbitrarily trimming prior period episodes would not meet the intent of the penalty. The HHS commented that administratively, this is only an issue if a penalty is tied to the originating episode with retrospective adjustment.
- Gold Coast, Sunshine Coast and Townsville HHSs, and the Funding Strategy and Intergovernmental Policy Branch supported the proposal as this promotes stability and reduces complexity of the model. The volumes of cross-year readmissions (1.7 per cent) is not material enough to warrant the additional complexity and unpredictability this would cause for example, resulting in retrospective funding adjustments.
- Mental Health Branch noted that review of the ACSQHC's list of avoidable readmissions does not focus on readmissions specific to the mental health related separations. The ACSQHC are doing some work to curate the list of HACs that will consider mental health care. The branch suggested that similar work should be investigated for avoidable mental health readmissions, noting that work is also being progressed by the MHISSC on the development of a physical health indicator for the *5th National Mental Health and Suicide Prevention Plan*. Initial exploratory work will consider mental health related avoidable hospitalisations and as this work evolves it may provide a possible mental health focus for pricing and funding for safety and quality.

- PSQIS support the proposal however note that limiting the measurement of readmissions to those occurring within the same financial year will impact some of the readmission intervals, for example ninety-day intervals readmissions will never recorded in the June quarter. The unit suggested that IPHA quantify the impact of this decision to enable stakeholders to make an informed decision.

Consultation Question:
26. Do you agree with the proposal to include funding options, but not pricing options, for avoidable hospital readmissions?

There was broad support from Queensland stakeholders including Gold Coast HHS, Funding Strategy and Intergovernmental Policy Branch and Mental Health Branch for the use of funding, rather than pricing options for avoidable readmissions. Specific responses to this question were as follows:

- Sunshine Coast HHS supported this proposal for the reason outlined by stakeholders in previous consultations; pricing options do not allow for targeted improvements and if applied across all episodes could lead to indiscriminate cost cutting measures and ultimately poorer quality outcomes.
- Townsville HHS advised that option three was the preferred method for funding adjustments in the initial stages with a possible transition to option one over time. All the options assume that the readmissions are preventable, which until the HHS has an opportunity to see the criteria and assess the data locally, cannot be assumed.

Consultation Question:
27. What patient-specific factors should be examined in a risk-adjustment approach to avoidable hospital readmissions?

Queensland stakeholders advised that as a starting point the same patient-specific risk factors applied to the HAC risk adjustment, should be examined in a risk-adjusted approach to avoidable hospital readmissions. Additional patient-specific factors that should be considered, include:

- age;
- chronic disease status;
- indigenous status;
- comorbidities / complexities (including mental health status);
- marital / family status;
- Multipurpose Australian Comorbidity Scoring System (MACSS);
- previous frailty indicators;
- risk behaviours;
- previous hospital utilisation data;
- socioeconomic indices;
- distance travelled from usual residence to hospital;

- use of step down facilities; and
- disasters / major events.

IHPA assessment: Option 1 (do not fund the readmission episode)

Consultation Questions:
28. What are the advantages and disadvantages of Option 1?
29. Do you agree with IHPA's assessment of this option?

The Department recommends that IHPA provide impact analysis modelling of all the proposed options to enable jurisdictions to provide an informed response. The risk adjustment factors will be critical and when undertaking the analysis of different options and the following criteria should be considered:

- financial penalties for peer hospitals (for example size, Casemix, patient cohort, speciality) should be driven by differences in rates of readmission due to factors within their control;
- hospitals should not face financial penalty due to differences in readmission driven by factors outside their control such as size, Casemix, patient cohort and speciality;
- simplicity of implementation / level of administrative impost;
- achieves the policy intent of encouraging hospitals to minimise avoidable readmissions; and
- the ability to back-cast the implementation of the funding adjustment in the first year of full operation.

The Department notes that the ease of implementation is highly dependent on whether or not the scope is limited to the admitting hospital and the financial year. If the hospitals do not share the same PMI, implementation is significantly more difficult.

Darling Downs HHS stated that the advantages of option one are transparency and effectiveness as a penalty for proven poor care, whilst the disadvantages are the need for clinical confirmation that the readmission resulted from poor care during a prior admission which means the determination is subjective and also has the undesirable outcome of reducing clinical treatment time.

Central West HHS proposed option one could disproportionally impact small facilities in constrained local health areas, therefore block funded rural and remote facilities should be excluded or criteria introduced to mitigate the impact on these hospitals.

Gold Coast HHS noted that the proposal is a very clear-cut approach, however the adjustment between readmission hospital and index hospital would need to be very clearly identified.

Sunshine Coast HHS cited that the main advantage is ease of implementation and the direct link to a specific readmission episode. Targeted improvements could then be applied at a local level. A disadvantage might be that hospitals might institute screening of admissions to avoid penalties or manipulate the system in other ways, because the criteria is linked strictly to an admission, not to a service event such as a presentation to ED or an outpatient attendance and therefore all options need to take into consideration the risk adjustment factors.

The Funding and Costing Unit raised concerns that not funding the readmission establishes a financial incentive not to admit the patient, to code the record to ensure that it isn't identified as a re-admission or

to minimise the care provided. Whilst the hospital patient care ideology would usually overcome any perverse financial incentives, this may not be sufficient for hospitals who are struggling financially.

The Funding Strategy and Intergovernmental Policy Branch commented that in the absence of any modelling by IHPA on each of the proposed options, it is difficult to provide feedback on the different options. The branch noted that IHPA intends to shadow each option over a twenty-four-month period to examine the impact of each and suggested the above-mentioned criteria for analysis. The branch stated that the major disadvantage of option one is that it is not risk adjusted and larger hospitals with more complex episodes of care are likely to have a higher rate of avoidable readmissions and would be unduly penalised.

PSQIS and Statistical Services Branch advised that neither unit supported the option to not fund the readmission episode. Statistical Services Branch noted that the second facility may not be able to influence / affect services and care at the initial facility and therefore it is not appropriate for the second facility in this scenario to the penalised. PSQIS stated that the penalty will likely be disproportional and, in many cases, proportionality disputed. There is also potential, where the monetary penalty is high, of adverse behavioural coding changes. The assertion that this option has benefits due to the ease of implementation is cursory; the documentation fails to address:

- how multiple readmissions will be managed;
- how readmissions that cost more than index admission will be treated; or
- whether consideration will be given to hospitals that transfer more patients (and who thus may have more same LHN, different hospital readmissions).

Darling Downs, Gold Coast and Sunshine Coast HHS collectively agreed with IHPA's assessment of this option. The Funding Strategy and Intergovernmental Policy Branch noted that IHPA has rated the "equitable risk adjustment" criteria for this option as "partial" on the basis that risk adjustment factors can be overlaid on the approach.

IHPA assessment: Option 2 (combine the index and readmission episodes)

Consultation Questions:
30. What are the advantages and disadvantages of Option 2?
31. Do you agree with IHPA's assessment of this option?

There were mixed views from Queensland stakeholders regarding option two. The majority of respondents preferred option two however all cited the potential administrative complexities of this proposal. Gold Coast and Sunshine Coast HHSs agreed with IHPA's assessment of option two however Darling Downs HHS advised that the HHS did not. Following is a summary of stakeholder feedback:

- Central West HHS noted that access to clinical care needs to be taken into consideration for both options. The HHS reiterated the previous comment that block funded rural and remote facilities should be excluded or criteria introduced to mitigate the impact on these hospitals.
- Darling Downs HHS stated that the proposal is administratively very complex, with potential cross district and jurisdictional flows; the HHS noted there were few if any advantages with this option. The HHS also raised concerns regarding the impact this would have on the robustness of the NHCDC if

AR-DRG assignment is altered and does not reflect the morbidity coding, for example medical readmissions from surgical cases.

- Gold Coast HHS acknowledged that option two is a softer approach and could be more equitable than option one, however option two does present some challenges for management of remuneration.
- Sunshine Coast HHS commented that it is more complex to recalculate the combine episode costs for minimal gain, and by definition of an avoidable readmission, the entire cost of it should have been avoidable as in option one, rather than merged with the index admission. The HHS did note that an advantage is that the adjustment is still linked to specific episodes.
- The Funding Strategy and Intergovernmental Policy Branch noted that option two is similar to option one and the major disadvantage also with this option is that it is not risk adjusted; option two would require a complex risk adjustment overlay to reference both the index admission and readmission in determinations.
- PSQIS supported option two in preference to option one as option two is a less disproportional penalty, however noting that implementation is possibly more complex. Further input from clinical staff should be sought as clinicians may understand the policy in principle, however the added length of stay may decrease the acceptance. The unit also queried whether IHPA will consider options to reduce the severity of any adjustments if adverse clinical outcomes are observed after this initiative is implemented?
- Statistical Services Branch listed retention of the index AR-DRG as a disadvantage of option two. The coding of the readmission should be influenced by what happens to that patient during that admission (new HAC, other conditions being treated, unclear documentation etc) rather than being effectuated from the index admission.

IHPA assessment: Option 3 (Benchmark rates of avoidable hospital readmissions across hospitals with funding adjustments on the basis of threshold rates)

Consultation Questions:

32. What are the advantages and disadvantages of Option 3?
33. Should benchmarks for avoidable hospital readmissions be measured and calculated at the level of individual hospitals or at the level of Local Hospital Networks?
34. How should the threshold be set for ‘acceptable’ rates of avoidable hospital readmissions? How should the funding adjustments be determined for ‘excess’ rates of avoidable hospital readmissions?
35. Do you agree with IHPA’s assessment of this option?

Advantages and Disadvantages

Darling Downs HHS stated that option three enables acceptable benchmarks to be determined and subsequently penalises facilities not achieving this; this model has the advantage of being transparent and in line with other quality improvement payment (QIP) and key performance indicator (KPI) incentives. The HHS commented that experience has shown that small rewards are more effective than large penalties, however rewards have not been discussed in the consultation paper. Darling Downs HHS suggested that any financial adjustments should be set relative to the improvement from a baseline, rather than certainty of penalty for any readmissions.

Gold Coast HHS indicated that option three could be considered a "different" approach as it loses the specificity of options one and two. The HHS advised that addressing unplanned readmissions requires collaboration with the clinicians to understand the issue and unless specific penalties are linked directly to clinical practice (and discrete encounters), it will be more difficult to identify underlying causes and solutions if the adjustment is determined globally; as an advantage however, it does mitigate the problem of adjusting revenue for the index hospital.

Sunshine Coast HHS commented that option three may not drive improvement as well as options one and two. The advantages are that it would lead to reduced penalties for individual hospitals, however administering thresholds and benchmark rates will be difficult to implement and localise.

Statistical Services Branch noted that option three could be a good mechanism to launch an adjustment for avoidable hospital readmission, prior to implementing options one or two. A staggered commencement would provide an opportunity to identify issues and refine the process.

PSQIS did not support option three.

Benchmarking Levels

Darling Downs and Gold Coast HHS and PSQIS responded that benchmarks should be measured and calculated at the level of the individual hospitals as readmission rates may vary associated with the Casemix of the individual facility. Benchmarking of individual hospitals with their peers would seem to be more reasonable than at the level of the LHN however PSQIS noted neither benchmarking at a hospital or LHN level reduces the risk of shifting readmissions to facilities outside the LHN.

Sunshine Coast HHS and Statistical Services Branch both stipulated that benchmarks should be measured and calculated at the level of LHNs. Statistical Services Branch clarified that it should also depend on the profile of the activity, for example if both admissions occur at the same facility or whether there are multiple facilities involved. If the index admission and readmission occur at different facilities, benchmarking at a LHN level may be more appropriate however if variations in resources or clinical service profiles differ across facilities within a LHN, this may influence the LHN benchmark.

The Funding Strategy and Intergovernmental Policy Branch commented that if benchmarks were set at an LHN or hospital level, as opposed to national or state level, then the model would include a level of risk adjustment and may negate the need for a complex risk adjustment process such as that used for HACs.

Threshold for Acceptable Rates

Darling Downs HHS did not support the use of the top quartile as a benchmark. Sunshine Coast HHS commented that it is challenging to determine an "acceptable" level for rates of avoidable hospital readmission and suggested that the risk adjustment factors should inform the calculation, rather an arbitrary top ten per cent.

The Funding Strategy and Intergovernmental Policy Branch proposed IHPA consider a graduated payment option as utilisation of a lower threshold with a graduated payment will increase hospital awareness of this adjustment. If sites are not reviewing compliance there could potentially be a spike which cannot be disregarded; a lower threshold will encourage organisations to monitor results thusly being able to identify issues before they are a major problem.

PSQIS advised that it is problematic assessing whether the thresholds are "acceptable" without additional quantitative analysis. The unit also stated that any conclusions will be dependent of the quality of the risk

adjustment, noting that risk adjustment details will be highly salient. There is potential that a global penalty regime will be considered inequitable, for example where there is a large deviation in rates, which cannot be attributed to known patient or provider level explanatory variables.

Statistical Services Branch suggested that "acceptable" rates should be determined based on assessment and consideration of current levels over a period of time (at least five years to allow for trends in activity and seasonal influences) and any funding adjustments calculated for excessive rates relative to activity.

Assessment

Darling Downs HHS agreed with IHPA's assessment of this option. Central West HHS commented this option is more attuned to the HHS as benchmark calculations are grouped by hospital or area type, for example regional, rural and metropolitan.

PSQIS stated that any adjustments should be set at such a level that achieves maximum patient benefit and minimum adverse mortality and quality of life impacts; the correlation between the policy and this objective is not evidenced. The adjustment regime should be cautious, to avoid increasing risks to patient outcomes; the unit suggested a stepped approach over time to increasing the excess, rather than starting with a higher excess and encountering adverse net patient outcomes.

Summary

Queensland stakeholders generally, responded favourably to option three. Respondents advised that this approach could enable IHPA to establish agreed and clinically supported benchmarks, and a penalty structure for not achieving the threshold is transparent and consistent with other QIP and KPI incentives.

The Department supports the Funding Strategy and Intergovernmental Policy Branch assertion that if benchmarks were set at an LHN or hospital level, as opposed to national or state level, then the model would include a level of risk adjustment and may negate the need for a complex risk adjustment process. The Department recommends that IHPA provide quantitative analysis of the listed benchmarking methods to enable jurisdictions to conduct an informed assessment, noting that the outcome will depend on the quality of the risk adjustment.

The Department supports PSQIS comments that adjustments should be set at such a level that achieves maximum patient benefit and minimum adverse mortality and quality of life impacts. The Department recommends that IHPA consider PSQIS and the Funding Strategy and Intergovernmental Policy Branch proposals, that a conservative implementation approach be adopted to ensure appropriate monitoring and to mitigate adverse patient outcomes.

Consultation Questions:

36. Do you agree with IHPA's implementation pathway?
37. For what period of time should the three proposed funding options be shadowed?
38. Do you support an incremental approach to introducing funding adjustments for avoidable hospital readmissions based on one or two clinical conditions from the list of conditions considered to be avoidable hospital readmissions?
39. What other options do you recommend for the implementation of a funding model for avoidable readmissions?

Implementation Pathway

The IHPA implementation pathway was not widely supported due to concerns regarding negative impacts. Respondents cited evidence that penalising readmissions is counter-productive and will adversely impact patient contact time.

Darling Down HHS does not consider additional financial penalties for readmissions justified, as the facility is already incurring costs for treating the patient. The HHS stated that this proposal will cause valuable clinical time to be diverted from patient treatment to administrative activities such as reviewing readmissions to determine their validity; any shadowing will also require use of clinical time. The HHS reiterate their position that funding adjustments for avoidable hospital readmissions should not be introduced or trialled under a shadow funding arrangement, however if implementation of this initiative is approved, any adjustments should be limited, incremental and small.

PSQIS also registered their lack of support for this policy. The unit stated that this stance is due to this adjustment potentially providing the least transparency at the clinician level, therefore creating challenges to enact change based on the results.

Sunshine Coast HHS supported IHPA's proposed implementation pathway. The HHS suggested that although complex to administer, in future IHPA may consider expanding the scope to include presentations to EDs that do not result in an admission as the index episode.

Shadow Period

Queensland stakeholders collectively supported an extended period of time for shadowing and provided the following comments:

- Townsville HHS stated the HHS was generally supportive of shadowing all three funding options. The HHS suggested that the period of time for the shadowing should be set in conjunction with agreement about the development of the IHI and when this might realistically be available in national datasets.
- Gold Coast HHS proposed that two years would be a reasonable time frame for shadowing, however commented that if there has been a shadow period that allows the evaluation over a reasonable period of time, there may be limited advantage in a defined shadow period.
- PSQIS responded that it would be useful to have long development period to progress risk adjustment determinations and data capture of the IHI. A shadowing period would also allow stakeholders to consider business process adaptations prior to full implementation.
- Statistical Services Branch suggested that the three proposed funding options should be shadowed at least five years prior to implementation and that shadow period should continue for a minimum of two years.

Incremental Introduction Approach

Townsville HHS and PSQIS both noted support for an incremental approach to introducing funding adjustments for avoidable hospital readmissions. Townville HHS stated that this will allow time for HHSs to adjust and establish native reporting of the IHI as well as local understanding of the data and drivers to prepare for the changes. PSQIS advised that an incremental approach is necessary as there is limited

evidence that this initiative will improve patient outcomes. The Department supports these comments and recommends an incremental approach.

PSQIS do not support trialling funding adjustments for one or two conditions. The unit stated it would be more beneficial to trial a non-national implementation of all measures at selected sites, as opposed to national trial of one or two clinical conditions. A national trial of one or two conditions will preclude the ability to use control groups and therefore restrict the evaluation to a naïve before / after result. A trial of all readmission conditions at select sites allows more sophisticated evaluation against non-equivalent controls in real time (thus allowing for time trends to be controlled). This trial approach would also be consistent with the Victorian 'HealthLinks: Chronic Care' program (consultation paper page 35) which describes pilot capitation and bundled funding. A selected trial could also provide evidence on whether patient mortality outcomes improve which fulfils the stated objective that the program be "evidence based". A trial could also forestall national replication of the US experience, where some evidence suggests mortality outcomes worsened as a result of pricing for safety and quality schemes:

- In 2013 ACSQHC conducted a literature review which found that "The evidence for the material impact of such schemes (pricing for safety and quality) on patient outcomes remains equivocal" https://www.safetyandquality.gov.au/our-work/indicators/hospital-acquired-complications/development-of-the-hospital-acquired-complications-hacs-list/.
- On 16 November 2017, via Twitter Dr Stephen Duckett said "I cannot recall a single recent article which endorses readmissions rate as a Pay for Performance measure" https://twitter.com/stephenjduckett/status/931303843572285440.
- The research article Association of the Hospital Readmissions Reduction Program Implementation With Readmission and Mortality Outcomes in Heart Failure, dated 2018 concluded "…implementation of the (US) Hospital Readmissions Reduction Program (HRRP) was associated with a subsequent decrease in 30-day and 1-year risk-adjusted readmissions and an increase in 30-day and 1-year mortality." The authors also recommended randomising the roll out of interventions to measure outcomes before going system-wide: "Our study is also a reminder that, like drugs and devices, public health policies should be tested in a rigorous fashion—most preferably in randomized trials—before their widespread adoption" https://jamanetwork.com/journals/jamacardiology/fullarticle/2663213.
- The JAMA Forum: To Fix the Hospital Readmissions Program, Prioritize What Matters by Harvard Professor Ashish K Jha states "Although early data suggested that HRRP was improving care, new evidence suggests that the benefits may have been much smaller than understood and that there might have been meaningful, unintended consequences." https://newsatjama.jama.com/2017/12/20/jama-forum-to-fix-the-hospital-readmissions-program-prioritize-what-matters/.

Other Options

As an alternative to financial adjustments, Darling Downs HHS suggested that IHPA introduce "cost of treating readmissions" by facility as a publicly reportable KPI and IHPA also coordinate activities to identify best practice and promote these treatment methods.

Statistical Services Branch requested IHPA develop a national modelling tool that would allow jurisdictions to further analyse the data and apply specific scenarios within the model to measure the impact of changes, for example if the volume of avoidable readmissions increased from five to ten episodes for a given period.

Summary

The Department notes stakeholder concerns regarding the proposal implementation pathway and recommends that IHPA provide assurance that the clinical impact of any funding adjustments will be rigorously assessed to ensure there are no unanticipated adverse patient outcomes. The Department recommends a minimum two-year shadow period to enable impacts to be analysed and an incremental introduction of funding adjustments for avoidable hospital readmissions. The Department supports the PSQIS proposal that IHPA trial the options at selected sites (referencing the full list of clinical conditions) to permit an informed evaluation process. The Department also requests that IHPA explore the Statistical Services Branch suggestion to develop a national modelling tool that empowers jurisdictions to model and measure the consequence of changes.

11.5 Evaluation of safety and quality in health care

Consultation Question:

40. What questions regarding the safety and quality funding reforms should be included in the Evaluation Framework?

Darling Downs HHS, PSQIS and Statistical Services Branch provided detailed feedback regarding questions IHPA may consider for the Evaluation Framework for the safety and quality funding reform. The Department has reviewed the stakeholder responses and recommends the following:

- Data attestation requirements be extended to LHNs coordinated through the jurisdiction to ensure accountability for data accuracy.
- Specific evaluation questions should include:
  - Has the policy increased adverse patient health outcomes, (all-causes) mortality and morbidity?
  - Has the policy resulted in significant change in coding practises for similar patients (as hospitals attempt to minimise penalties)?
  - Did patient outcomes differ materially across pre-shadowing, shadowing, trial and post-implementation?
- To maximise benefits, the evaluation must consider:
  - baselines;
  - external expertise;
  - auditing;
  - transparency; and
  - follow through.

The comments received from stakeholders are provided below.

Darling Downs HHS suggested that IHPA should quantify the reductions in reported HAC rates due to:

- errors in clinical documentation;
- coding errors resulting from ambivalent medical terminology used in clinical notes;
- errors in determining presence of diagnoses upon admission; and

- introduction of initiatives changing clinical treatment practices.

Statistical Services Branch proposed that there should be mandatory questions in relation to processes (including governance) that have changed or been impacted by the pricing and funding for safety and quality initiatives including HACs.

The unit also suggested that LHN leadership should endorse the accuracy of information and this attestation could be published by IHPA and potentially form part of the established accreditation process. This would provide additional transparency at a LHN and national level regarding jurisdictional processes and could potentially assist to identify best practice models of care.

Statistical Services Branch also suggested that there would be benefit in understanding where changes to processes are impacting reporting (for better or worse), for example where there is a significant difference in the result compared to previous, is there is an audit or validation process performed?

PSQIS provided extensive feedback for consideration as part of the Evaluation Framework. The unit stated that rigorous evaluation requires baseline and control data to be collected, to ensure conclusions on effectiveness are reliable. The current proposal does not seem to have incorporated rigorous (counterfactual) outcome measurement during roll out to assist evaluation (stepped wedge or cluster randomisation could be considered); given this absence, the policy risks drawing criticism that evaluation is a bolted-on after-thought, especially given stated objectives.

PSQIS suggested that specific evaluation questions might include:

- Has the policy increased adverse patient health outcomes, (all-cause) mortality and morbidity?
  - How will this be rigorously measured absent a cluster randomised trial?
  - Will patient morbidity increases be captured where readmissions are reduced? If only administrative data are used how will such quality reductions be assessed rigorously?
- Has the policy resulted in significant change in coding practises for similar patients (as hospitals attempt to minimise penalties)?
- Did patient outcomes differ materially across pre-shadowing, shadowing, trial and post-implementation?
  - Did the shadow period (where risk adjusted outcomes are transparently shared) reduce readmissions without adverse mortality outcomes? Was most of the reduction gained here compared to post-implementation reductions?

PSQIS advised that the following general observations should be considered:

- Baselines: the proposed approach could more specifically define baseline data benchmarks.
  - Specify baseline periods, for example years of data, then collect level and rates of all HACs / avoidable readmissions (to help in understanding pre-implementation trends).
  - Condition Onset Flag (COF) levels and rates (and AR-DRG and other diagnosis-related complexity) should also be gathered.
- External expertise: have any independent evaluation consultants or health economists conversant in evaluation of financial incentives and quality impacts been consulted?
  - What steps does IHPA propose to ensure appropriate independence of evaluators?
  - Ideally IHPA should not evaluate their own risk adjustment methods, processes or policy frameworks.
    - Acknowledging IHPA is well–placed to describe data trends, these do not always fully reflect on-the-ground clinical impacts on patients (for example due to coding behavioural responses).

    - To combat allegations of structural bias, an independent evaluator would be better placed to interrogate IHPAs data / methods, while also consulting states and territories on coding audit outcomes and targeted clinician groups on patient outcomes.

- Auditing: will there be proposed jurisdictional guidelines for auditing coding quality, to quantify COF trends / behaviour and coding depth? Will IHPA feedback national and local trends to state and territory auditors?
  - Changes in outcome measures cannot always be presumed to reflect changes in underlying outcomes, often they can simply reflect changes in reporting behaviour. If funding bodies shift too much risk to providers (risk-averse), providers may respond by lowering quality or ceasing treatment / diverting higher risk patients / decreasing the accuracy of coding.
    - As clinicians also generate the data they are assessed on, coding behavioural responses need to be considered seriously. This question should be centrally addressed in any evaluation, especially in light of objectives:
      - I69.b.ii. "Unintended consequences as a result of practice or reporting changes are not likely to be to the detriment of individual and hospital-wide patient care".
      - I69.c.i. "Reporting mechanisms are sufficiently robust to ensure that any benefit obtained through under reporting is minimised".
    - Investment in greater auditing of coding is thus likely needed (to avoid the US' apparent experience).
- Transparency: will IHPA publish a website with technical specifications on the policy and related risk adjustment, consistent with 176.c. "Reforms are transparent"?
  - Without transparency on process, it is not clear stakeholders can be confident hospitals fully understand the approach and thus fidelity may be lessened.
- Follow through: what approaches will IHPA propose to ensure evaluation results are sufficiently disseminated or acted upon (for example circulating coding audit findings and best practises to improve coding accuracy)?