



# **Counting, costing and classifying non- admitted MDCCs where the patient is not present**

**Prepared for the Independent Hospital  
Pricing Authority**

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**FINAL REPORT**

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## List of Acronyms

Acronym	Definition
<b>ABF</b>	Activity Based Funding
<b>ACT</b>	Australian Capital Territory
<b>AIHW</b>	Australian Institute of Health and Welfare
<b>CNC</b>	Clinical Nurse Consultant
<b>CNS</b>	Clinical Nurse Specialist
<b>COST</b>	Costing process
<b>ENT</b>	Ear, Nose and Throat
<b>ICT</b>	Information Communication and Technology
<b>IHPA</b>	Independent Hospital Pricing Authority
<b>FTE</b>	Full-time equivalent
<b>GP</b>	General Practitioner
<b>JMO</b>	Junior Medical Officer
<b>MBS</b>	Medicare Benefits Schedule
<b>METeOR</b>	Metadata Online Registry
<b>MDCC</b>	Multidisciplinary Case Conference
<b>MDT</b>	Multidisciplinary Team meeting
<b>MDCC</b>	North Eastern Melbourne Integrated Cancer Service
<b>NHISSC</b>	National Health Information Standards and Statistics Committee
<b>NSW</b>	New South Wales
<b>NT</b>	Northern Territory
<b>NUM</b>	Nursing Unit Manager
<b>NWAU</b>	National Weighted Activity Unit
<b>OPD</b>	Outpatient Department
<b>PAH</b>	Princess Alexandra Hospital
<b>PAS</b>	Patient Administration System
<b>PMH</b>	Princess Margaret Hospital
<b>PCH</b>	Prince Charles Hospital
<b>Qld</b>	Queensland
<b>SA</b>	South Australia
<b>SCP</b>	Scope
<b>Tas</b>	Tasmania
<b>Vic</b>	Victoria
<b>WA</b>	Western Australia

# 1 Executive Summary

The Independent Hospital Pricing Authority (IHPA) is currently redeveloping the Non-Admitted Care classification system for use in the national Activity Based Funding (ABF) model. As part of this work, IHPA is considering the extent to which specific services should be categorised and priced separately or remain part of the 'price' of a non-admitted patient event. The key challenge in this work is weighing the benefits of more granular classification system, which can increase the performance of the classification, versus the costs associated with data collection and administration of a more granular classification.

IHPA commissioned KPMG to examine the counting, costing and classifying of multidisciplinary case conferences (MDCCs) for non-admitted patients, when the patient is not present. MDCCs have become a more common and important aspect of clinical care. The increasing complexity and specialisation in health care has driven the need for more formalised mechanisms for multidisciplinary collaboration. The study's purpose is to help IHPA develop an enhanced understanding of how MDCCs are conducted in clinical settings, the resources involved, the data collection requirements and, finally, the feasibility of counting, classifying and costing MDCCs. To help achieve this purpose, the study's approach consisted of:

- consultations with jurisdictional representatives;
- development of a data collection template;
- consultations with health site representatives;
- collection of data on MDCC events; and
- analysis and reporting.

This study's findings are limited by:

- the non-random selection of health sites and services to take part in the study, which potentially makes the sample unrepresentative of the broader system;
- the relatively small sample of health sites and services taking part in the study;
- the lack of direct observations of MDCC events, which required relying on the views of interviewees and reduced the granularity of data collected; and
- the reliance on primary source research in conducting this study, which negates the ability to sense check the data collected with an alternate source.

## *The MDCC Concept*

The MDCC is not a new concept. Team-based care, integrated care or multidisciplinary care is becoming ubiquitous within all health services. Many hospital services have some form of MDCC where multiple clinicians discuss patient management plans or coordinate team activities in order to make the service more efficient, a clinical decision more robust, or a patient journey more seamless. Variations of MDCCs take shape in different forms, such as:

- adjuncts to team meetings;
- pre-admission planning meetings;
- pre-outpatient meetings;
- blood test review meetings;
- regulatory compliance meetings; and
- group email discussions.

These meetings and interactions, which were encountered in the course of this study, fulfil various components (but not necessarily all) of the criteria listed in the existing definition of an MDCC.

This insight prompted a deeper assessment of the purpose of an MDCC. A clear understanding of the purpose of an MDCC is important to ensure that the definition is focused and succinct, and does not inadvertently capture other group meetings. This assessment identified that the primary requirements of MDCCs should satisfy each of the following:

- the patient has a clearly documented problem (or need) which requires the input by a multi-disciplinary team (without which the conclusions cannot be drawn);
- the output (a care plan, strategy, or a form of service coordination approach) to the problem (or need) represents a non-equivocal consensus of the multi-disciplinary members who have a direct role in the care of the patient; and
- the output is formally recognised through documentation in the patient's medical record.

#### *Not all MDCCs meet the current definition*

Most of the MDCCs reviewed have met at least some criteria of the existing definition. The most common reason why MDCCs did not meet the existing definition was the lack of structured documentation in the patient's clinical record. This included any combination of the following:

- no recording of the MDCC event itself;
- no recording of "start time" and "end time" for each discussion;
- no "listing of attendees"; and
- no description of the "patient's problems and goals".

There are other aspects of the current definition that some of the MDCCs may not have met, depending on the interpretation of the following criteria that form part of the definition. These included:

- "arranged in advance" – it is not clear whether this means all meetings should be "scheduled" or that there must be an "agenda" prior to the commencement of the meeting;
- "must involve three or more health care providers" – it is not explicit if the three health care providers must have a direct caring role for the patient, or whether any three providers that are able to provide clinical advice would fulfil the requirement; and
- "summary of outcomes" – it is not clear if a list of tasks (e.g. book an ultrasound next week) is considered an "outcome", or whether the outcome described is required to be related to the "goal of the patient" or the "objective of the MDCC".

Some MDCCs were considered to take place as an adjunct to other meetings, where multidisciplinary care was not the sole, or even main, purpose. Discussions of non-admitted patients occurred commonly as a component of regular team meetings. For these meetings, the level of planning, existence of formal processes, and documentation of decisions and outcomes was lower than in meetings that were arranged specifically and solely for the purpose of multidisciplinary conferencing.

#### *Variation in purpose of the MDCC*

The purpose of MDCCs varies among those encountered during this study. Some MDCCs have a narrow and explicit purpose, such as surgical treatment decision making, pre-admission planning, outpatient care planning, or 90-day post discharge review. There were other MDCCs that had a broader agenda, such as general department MDCC meetings or weekly referral intake review meetings, where information sharing about patients, treatment progress, or education are key drivers for the meeting. These MDCCs, which have a broader agenda, tended to have less documentation and tracking of actual outcomes of the meeting. This was driven by the shorter timeframes allocated to the discussion of each patient. The more specific and focussed MDCCs tended to have clearer documentation of goals and outcomes.

### *Feasibility of data collection*

There is currently no systematic data collection of the conduct of MDCCs in any jurisdiction or at any of the health sites visited. A significant constraint on the ability to systematically collect data on MDCCs, where the patient is not present, is the configuration of Patient Administration Systems (PAS). PAS architectures tend to be patient-centric, so requiring collection of data on patient-related activities where the patient is not involved may require changes to existing PAS. Jurisdictional representatives considered that any changes to PAS are likely to take some time and the costs and problems are compounded where a hospital employs multiple systems (for example for inpatient and outpatient services). It should be noted that this is a common feature of health services. An alternative short-term measure that would enable data collection would involve the use of data collection mechanisms outside of the normal administrative systems and processes. This would carry the risk of collecting and storing data in relatively unstructured formats, which could result in higher levels of error. It would also add to the existing complexity in data collection systems that health sites utilise.

### *Application of current Tier 2 Non-Admitted Classification*

The study reviewed the current Tier 2 Non-Admitted Classification. Specifically, the applicability of the Tier 2 classification against the core characteristics of MDCCs was examined. This analysis was completed against the two levels within the classification structure: Groups and Classes. The four Groups are subdivided into 141 Classes of subspecialties. The MDCCs encountered would potentially be assignable to a type of service, which relates closely to the topic of the MDCC in question.

The classification supports some elements of the MDCC model, as the classification makes provision for clinics that are composed of two or more specialisations. MDCCs under the current definition require three or more subspecialties to participate in the case conference.

Classes are the Tier 2 classification categories used to classify each non-admitted event. They are subsets of Groups. Specialisations may be formed around the clinician, patient condition, patient population group or type of care, which are provided to a patient.

An MDCC event can potentially be classified using the existing Tier 2 non-admitted service classification. There are three potential options for classifying MDCCs:

1. Add a fifth Group. This would be the simplest way of classifying an MDCC event using the existing mechanism. The fifth Group could have Classes underneath it. Several potential categories for the Classes are considered in the following section.
2. Add a Class for an MDCC event within the "Medical Consultation" Group. This Group is relatively more suitable for including an MDCC event, as MDCC events cannot be considered to be a diagnostic or procedural service. This would have the consequence of excluding 'allied health only' events, which may therefore require separate consideration.
3. Split each of the 55 Classes of subspecialties within the "Medical Consultation" Group into two, so that each subspecialty has a Class one for instances where an MDCC event occurs, and one Class for instances where it does not.

Options two and three would need rules on how to allocate MDCC events. For instance, MDCC events involving multiple medical clinicians can only be allocated to one subspecialty class. In addition, rules would be needed to allocate MDCC events that did not have any medical clinicians participating.

### *Alternative approach to classification for consideration*

The study further examined if there are characteristics of MDCCs that may support the delineation of any distinct, mutually exclusive and well-described categories upon which a reliable classification system can be developed. The process of grouping different MDCCs is dependent on the purpose of

the classification system. As this study relates to resourcing and costing, the focus of the analysis is therefore on variables which relate to cost. As such, the study is designed to understand the rationale for differences in resource use, as driven by the objectives of the MDCC.

The following potential classifications for MDCC were identified. MDCCs could be classified by:

- clinical subspecialty unit (this is already addressed by the existing Tier 2 classification);
- clinical complexity;
- primary function of the MDCC (e.g. diagnosis and assessment versus care coordination); and
- encounter type.

The introduction of separate classification categories of Classes normally would be considered when there is a material cost difference between the different Classes. Due to the low sample size of MDCCs in this study, the study data is not sufficiently robust to construct cost estimates of MDCCs to then test potential classes described above. Augmenting the current sample of MDCCs, through additional data collection, would assist in developing cost estimates stratified by the classifications described above. However, the relative costs and benefits of this additional data collection should be considered before commencing such an exercise.

#### *MDCCs vary in length, number and composition of participants*

Table 1-1 summarises the key characteristics of MDCC events examined at clinical services in the study sites. The time duration of an MDCC meeting where multiple patients were considered is typically between 45 and 80 minutes. The time duration for discussing an individual patient ranges from 4.1 minutes to 8.3 minutes. The mean number of staff attending, and the composition of those staff, also varies. The variation shown in the table can be partly attributed to the variation in the type of clinical services that make up the jurisdictional samples. For example, the Victorian sample is largely composed of MDCC events from cancer services, which explains the high number of medical clinicians attending those events. The purpose of the MDCC event can also influence some of the key characteristics. MDCCs that emphasised clinical decision making tended to spend a longer time discussing patients.

*Table 1-1: Key characteristics of MDCCs*

State	Mean length of MDCC (mins)	Mean length of discussion / patient (mins)	Patients that are non-admitted (%)	Mean number of staff attending			MDCC sample size
				Medical clinicians	Nursing	Allied health	
<b>NSW</b>	53	7.2	71%	3.4	1.2	1.6	12
<b>Vic</b>	45	4.1	32%	9.7	1.0	0.3	12
<b>Qld</b>	65	7.4	90%	5.6	1.8	2.3	10
<b>WA</b>	80	6.9	100%	3.7	1.3	2.7	3
<b>SA</b>	50	8.3	73%	3.4	0.1	4.4	3
<b>NT</b>	60	3.4	100%	5.0	1.0	1.0	1
<b>All</b>	<b>55</b>	<b>6.0</b>	<b>67%</b>	<b>5.8</b>	<b>1.2</b>	<b>1.3</b>	<b>41</b>

Source: KPMG 2016

#### *Variation in cost of MDCC is driven by composition of participants and duration of the MDCC event*

Table 1-2 summarises the mean direct labour cost of an MDCC per patient discussed. The costs range from \$57 to \$115 (excluding the Northern Territory). The cost of an MDCC is a function of the time spent discussing a patient, and the composition of attendees. Victoria has one of the shortest times spent discussing a patient in an MDCC, with half the time of South Australia. However, it still costs \$79 per patient, which is driven by the high number of medical clinicians.



Table 1-2: Costing of MDCC at select sites

State	Mean length of discussion / patient (mins)	Mean number of staff attending				Mean labour cost of MDCC per patient	Mean labour cost of ancillary work associated with MDCC per patient	Mean hourly labour cost of an MDCC event	MDCC sample size
		Medical clinicians	Nursing staff	Allied health	Admin staff				
<b>NSW</b>	7.2	3.2	1.0	1.6	0.1	\$57	\$37	\$470	12
<b>Vic</b>	4.1	9.7	1.0	0.3	0.6	\$80	N/A	\$1,159	12
<b>Qld</b>	8.8	5.6	1.8	2.3	0.4	\$115	\$75	\$791	10
<b>WA</b>	6.9	3.7	1.3	2.7	0.3	\$73	\$8	\$636	3
<b>SA</b>	8.3	3.4	0.1	4.4	0.6	\$86	\$52	\$616	3
<b>NT</b>	3.4	5.0	1.0	1.0	1.0	\$38	\$19	\$662	1
<b>All</b>	<b>6.0</b>	<b>5.8</b>	<b>1.2</b>	<b>1.3</b>	<b>0.5</b>	<b>\$92</b>	<b>\$30</b>	<b>\$915</b>	<b>41</b>

<sup>NA</sup> Victoria was excluded from this analysis as 10 MDCCs in the sample were from NEMICS. Data on ancillary work associated with for this was not gathered. Therefore this was not calculated to avoid providing a misleading figure.

Source: KPMG 2016

The 'mean hourly labour cost of an MDCC event' shows the mean labour cost of running an hour-long MDCC event in a particular jurisdiction. This shows significant variation in hourly labour cost between jurisdictions, which is driven by the mean length of discussion per patient, the staffing profile of the attendees and variation in employment costs between jurisdictions.

The study also examined the mean labour cost of ancillary work associated with conducting an MDCC event. However, due to the nature of this data collection, the estimates presented are less robust and have a higher level of variation.

The costing estimates should be treated cautiously. For instance, some clinical units use a form of triage to identify patients to be discussed at an MDCC, whereas some other MDCCs would review all patients who meet general criteria (e.g. all patients who are due to be seen within 90 days of discharge), regardless of the patients' needs. Different approaches to patient selection could impact the cost estimates.

### Conclusions

The study found that while there is some variation in characteristics of the MDCCs reviewed, the majority were consistent with the current definition of an MDCC. The current definition can be strengthened to ensure it can be applied consistently across different service settings, and thus reduce the risks of inaccurate counting, classification, and the potential for gaming. The definition should be refined to ensure that there is sufficient differentiation between purposeful multidisciplinary conferencing and the more general discussions that occur between clinicians from different disciplines and from the team processes that are part of normal team care and management.

It will be difficult to ensure consistent application of a definition without the introduction of more robust administrative processes. This will likely introduce a higher burden of documentation on health services and may unduly constrain how an MDCC can operate.

To enable the counting and classification of MDCCs, existing data collection processes will need to be modified. In the short to medium term it will be difficult for health services to modify their systems to accommodate the collection of this data. A work-around solution would need to be adopted by health services, which itself could create problems with consistency and accuracy.

The current counting rules for non-admitted services require modification to accommodate MDCCs. While the costing standards do not require change, the challenges hospitals would face in accurately costing an MDCC event are no different (but still substantial) to the current challenges they face in costing non-admitted services. A formalised and structured case conferencing process (reflected in

both the current and proposed revised definition) is one of several mechanisms that clinicians use to improve the coordination and delivery of care for patients that require multidisciplinary care. There is a risk that if a payment class is introduced for a prescribed form of case conferencing it may introduce barriers to other efficacious processes intended to achieve the same outcome for the patient.

### *Recommendations*

The following matters would need to be addressed if the costing of MDCCs as a distinct component of the ABF framework was to be implemented:

#### **Recommendation 1: Refine the current MDCC definition**

Consider the suggested revisions to the current definition of an MDCC and impart the necessary refinements to improve the identification of an MDCC. Once complete, adopt the newly revised MDCC description as the single national definition.

Based on the assessment of the operation of MDCCs across the study sites and the analysis contained above, a proposed revised definition of an MDCC event is contained in Box 1-1. The proposed revised definition does not remove any elements of the existing definition. The proposed additions are marked in bold and red.

#### *Box 1-1: Proposed reviewed definition of an MDCC event*

*The draft definition of a non-admitted MDCC where the patient is not present includes:*

*1. Non-admitted MDCCs where the patient is not present are:*

- a) a meeting or discussion held **concurrently**<sup>1</sup> between health care providers*
- b) arranged in advance*
- c) to discuss a patient in detail and*
- d) to coordinate care.*

*2. Non-admitted MDCCs ensure that a patient's multidisciplinary care needs are met through a planned and coordinated approach.*

*3. A non-admitted MDCC must involve three or more health care providers **who have direct care responsibilities for the patient discussed:***

- The health care providers may be of the same profession (medical, nursing, midwifery or allied health).*
- Each participating health care provider must each have a different speciality so that the care provided by each provider is unique.*

*4. For each non-admitted patient discussed - a multidisciplinary management plan must be in place or developed at the MDCC, and one participating health care provider must record the following items in each patient's clinical record:*

- a) **the name of the MDCC event**, the date **of the event**, and the start and end times (or duration) at which each patient was discussed during the case conference*
- b) the names of the participants involved in the discussion relating to the patient and their designations/clinical backgrounds*
- c) a description of the non-admitted patient's problems, goals and strategies relevant to that MDCC, and*

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<sup>1</sup> Applying the term "concurrent" assumes that staggered conversations between the patient's care clinicians or that email conversations through a group of clinicians are not generally considered as MDCC events.

d) a summary of the outcomes of the MDCC.

*(Note: c. and d. may be completed through documentation (or revision) of a multidisciplinary care plan completed after each non-admitted MDCC where the patient is not present.)*

Source: KPMG 2016

**Recommendation 2: Revise the existing Counting rules**

Consider the suggested counting rules for MDCCs to support the proposed MDCC definition. A proposed revision can be found in Section 4.2.5.

**Recommendation 3: Conduct a study to directly cost MDCC activities**

This study derived an estimate of MDCC's costs from qualitative processes. A study collecting event level cost driver data would need to be considered to obtain a more reliable estimate of MDCC's costs.

Such a study would also enable an assessment of whether or not multiple MDCC classes are warranted.

## 2 Introduction and background

### 2.1 Purpose and scope

IHPA engaged KPMG to liaise with jurisdictions and health service sites to examine how to count, cost and classify MDCCs for non-admitted patients, where patients are not present.<sup>2</sup> The scope of the engagement included:

- consulting with jurisdictions to test the study design and approach, understand the data collection requirements of hospitals in each jurisdiction and the views of jurisdictions in relation to classifying and pricing non-admitted MDCCs where the patient is not present;
- consulting with health sites to understand how minimum data sets are collected across and within health sites, the span of clinics in which MDCCs mainly occur, why they occur and what are the cost drivers;
- developing a template for the collection of cost and activity data, active collection of the data and subsequent cleaning of the data and analysis (as required) in order to provide a final data set containing cost and activity data to support the pricing of non-admitted MDCCs where the patient is not present;
- providing a summary of the results of the study, its approach and limitations.

This project built upon an earlier project commissioned by IHPA, which utilised a desktop research and case study-based approach to examine the feasibility of counting, costing and pricing MDCCs for ABF purposes.<sup>3</sup> This study found that:

- clinicians tended to favour the collection of data on MDCCs, in order that this might be recognised for funding purposes;
- there could be a burden on health sites of collecting data on MDCCs; and
- there could be complexity in collecting this data in existing PAS.

The study recommended IHPA undertake more detailed work, if IHPA was to pursue the counting, costing and pricing of MDCCs for ABF purposes.

Since that report, IHPA's Clinical Advisory Committee (CAC) indicated that the incidence of MDCCs for non-admitted patients, and the accompanying workload for staff, has grown, reinforcing the general clinical view of the need to separate out MDCC activity as a separate unit of payment within the national ABF model.

### 2.2 Role of case conferences in provision of health services

Multidisciplinary care refers to a team-based approach to care in which relevant professionals work collaboratively through the process of the patient's treatment. Increasingly, a multidisciplinary approach is becoming more embedded in clinical models of care. An essential feature of multidisciplinary care is the MDCC. The Australian Institute of Health and Welfare (AIHW) Metadata Online Registry (METeOR) lists an MDCC as:

Meetings or discussion held between health care providers from different professions or specialisations, arranged in advance, to discuss patients in detail. The meeting may involve discussion of an individual patient's

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<sup>2</sup> In the interests of brevity, henceforth when an MDCC is referred to in this report, it will refer to an MDCC for non-admitted patients, where the patient is not present (unless otherwise stated).

<sup>3</sup> HealthConsult (2013), Feasibility of counting, costing and pricing multidisciplinary case conferences for activity based funding purposes: Feasibility report, Prepared for IHPA, Sydney

case or multiple patient cases. Multidisciplinary case conferences ensure that a patient's multidisciplinary care needs are met through a planned coordinated approach.<sup>4</sup>

The use of MDCCs in the provision of clinical care has grown in recent years.<sup>5</sup> This has been driven partly by the recognition of the increasing specialisation of knowledge amongst medical, nursing and allied health clinicians, and the associated increase in the complexity of care delivered. It has also been driven by the hypothesis that a multidisciplinary approach to care can lead to a more planned and coordinated approach that enhances outcomes for patients. A 2009 Cochrane Review found evidence that multidisciplinary approaches were associated with improved health care processes and outcomes.<sup>6</sup> The systematic review identified potential benefits, including:

- improved patient experience;
- reductions in the length of stay in inpatient settings;
- fewer adverse events; and
- reduced rates of re-admission.

However, the review qualified its findings by highlighting shortcomings of the existing literature, which limited the ability to draw general inferences.

MDCCs are also recognised as a useful mechanism to support education and learning in clinical settings. This is enhanced when MDCCs focus on complex cases.

## 2.3 Policy and funding context

The national ABF model uses the Tier 2 Non-Admitted Care Services classification system in calculating the National Weighted Activity Unit (NWAU) value of a non-admitted patient service event. IHPA is currently redeveloping this classification with the aim of using a more patient-based classification system. As part of this work, IHPA is considering the extent to which specific services should be priced separately or remain part of the 'price' of a non-admitted patient event. The key challenge in this work is weighing the benefits of more granular classification system, which can increase the performance of the classification, versus the costs associated with data collection and administration of a more granular classification. This MDCC project sits within that broader policy debate IHPA is facilitating amongst its key stakeholders.

## 2.4 Report structure

This report is structured as follows:

- Section 1 provides the executive summary;
- Section 2 comprises of an overview of the purpose, scope and the background of the report;
- Section 3 summarises the approach of the engagement;
- Section 4 consists of key findings found in the counting, costing and classification of MDCCs based on available data and observations;

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<sup>4</sup> AIHW (2016), Multidisciplinary case conference: definition, Metadata Online Registry, accessed 12<sup>th</sup> September 2016, <http://meteor.aihw.gov.au/content/index.phtml/itemId/614408>

<sup>5</sup> Statistics on the use of MDCCs in hospital settings are not available. However, MBS items 735, 739 and 743 are for when a General Practitioner organises a case conference in a residential aged care facility or a community case conference or a discharge case conference. An analysis of the number of claims against those items in the Medicare Database shows that claims have growth at a compound average annual growth rate of 16% over the past five years.

<sup>6</sup> Zwarenstein M, Goldman J, Reeves S. (2009), Interprofessional collaboration: effects of practice-based interventions on professional practice and healthcare outcomes. Cochrane Database of Systematic Reviews 2009, Issue 3.

- Section 5 summarises the recommendations and next steps; and
- The appendices provide supplementary information, including:
  - a summary of the MDCCs identified, the service they belonged to and the participants in the consultation;
  - the interview guides used in jurisdictional and health site interviews;
  - information guides distributed to participants in the study; and
  - a screenshot of the Microsoft Excel-based data collection template used for this study.

## 3 Approach

The approach to this project was driven by the need to develop an evidence base through consultation with representatives from a variety of jurisdictions, clinical services and professional backgrounds. To that end, the approach consisted of:

- jurisdictional stakeholder consultations;
- development of a data template – to clarify the data that would be captured in a systematic way through consultations with services that ran MDCCs;
- health site stakeholder consultations – to gather qualitative and quantitative data on how MDCCs are currently run, the processes and labour inputs involved; and
- analysis and reporting – to synthesise the information gathered to elucidate the feasibility of counting, classifying and costing MDCCs.

### 3.1 Jurisdictional stakeholder consultations

The purpose of the consultations was to:

- determine logistical arrangements (including ethics requirements) for engaging with health sites;
- understand how the conduct of MDCCs differs within each jurisdiction;
- consider data requirements of counting, classifying and costing MDCCs, and existing data reporting requirements in the jurisdiction;
- test interview guide, workshop guide and data collection template, for engaging with health sites;
- test the study design and approach;
- understand the data collection requirements of hospitals in jurisdictions; and
- understand the views of jurisdictions in counting, classifying and pricing non-admitted MDCCs where the patient is not present.

Group consultations were held with representatives from each state and territory jurisdiction for 90 minutes. The consultations were guided by a semi-structured interview schedule, which was developed in consultation with IHPA.

The individuals from the jurisdictions had responsibility for or expertise in pricing policy, ABF technical standards, and National Health Information Standards and Statistics Committee (NHISSC) representation. Jurisdictional representatives were also sent a briefing note prior to the consultation to provide an overview of the project. This briefing note and interview guide can be found in Appendix B and Appendix D, respectively.

### 3.2 Development of data template

The outputs of the consultations were used to inform the development of the data collection template. The purpose of the template was to collect information on the conduct of MDCCs, during the consultations with health sites, in a systematic way that would enable the creation of an evidence base to facilitate analysis. The template was integral in enabling the costing of MDCCs. The template was created in Microsoft Excel and was finalised in consultation with IHPA, and can be found in Appendix F

### 3.3 Health site stakeholder consultations

The consultations with health sites were a critical component of this study. The purpose of the consultations with health sites was to understand the span of clinics in which MDCCs occurred, how they occur, the resources used and the data collection practices associated with them.

Sites were selected for the study from a list of nominations that were made by jurisdictions. The nominations were stratified according to the geography and category (i.e. tertiary, regional, women and children's). Study sites were then selected, in consultation with IHPA, to ensure that there was an appropriate spread of geographies and categories covered. The following sites were selected:

- Westmead Hospital, New South Wales;
- Austin Hospital, Victoria;
- Metro North Hospital and Health Service, Queensland;
- Metro South Hospital and Health Service, Queensland;
- Princess Margaret Hospital, Western Australia;
- Royal Perth Hospital, Western Australia;
- Whyalla Hospital and Health Service, South Australia; and
- Top End Health Service, Northern Territory.

A briefing note, outlining the background to and objectives of the project, was sent to health site representatives. This initial engagement was designed to elicit information on MDCCs that occur at their site, clarify any logistical issues (i.e. such as ethics requirements) and request contact information of MDCC coordinators.

One hour consultations were then scheduled with MDCC coordinators and participants. The study team aimed to schedule consultations with six to eight services in each jurisdiction, where there were a sufficient number of services with MDCCs. At sites where there were many services with MDCCs occurring, the study team prioritised scheduling consultations with services that had not been covered in other health sites. In scheduling the consultations, participants were sent the briefing note on the project and a copy of the semi-structured interview schedule.

Consultations with Royal Perth Hospital did not proceed and, as a result, no qualitative or quantitative data was collected from that health site.

### 3.4 Analysis and reporting

The purpose of this phase was to synthesise the qualitative and quantitative information that had been gathered, in order to present a summary of the results of the study.

To construct and analyse the summary quantitative data, case conferences that satisfied key elements of IHPA's definition of an MDCC have been used. However, these case conferences did not have to meet all aspects of the definition to be included. MDCCs have been included in the summary data, which:

- did not record the start and end time of each individual patient's discussion;
- did not have a record of the names of attendees and their designations; and
- did not result in a formal update to the patient's care management plan (but resulted in actions).

MDCCs where the above factors were observed, but were assessed as fulfilling the intent of an MDCC and possessing the capacity to easily evolve to meet the definition of an MDCC, were included in the summary data (a more complete discussion of the MDCC concept and definition is contained in the following section).

Consequently, the summary data does not reflect the characteristics of an MDCC according to IHPA's precise definition. It would be reasonable to assume that compliance with the definition might lead to marginally different characteristics, including an increase in staffing resources and associated labour costs.



### 3.5 Limitations

The study's approach was designed to limit the resource burden on staff at health sites that participated in the study. It was also designed to be completed in a three month period. Consequently, the study's approach has a number of limitations that must be considered when assessing its findings.

- The health sites and services selected to participate in this study are not intended to be representative of the Australian health care system or of the services that provide MDCCs. The health sites and services were selected based on a willingness and ability to participate. The implication of this is that the portrait of the conduct of MDCCs that is constructed through the study may not be a representative reflection of MDCCs as they occur at health sites.
- The study is based on engagement with a relatively small sample of study sites and MDCC events. The study engaged with seven health sites, out of approximately 700 in the country. Only one site from each participating jurisdiction was engaged, apart from Queensland. Most clinical services only had one or two MDCC events included in the study, with cancer being the exception to this trend. Consequently, caution is required in drawing more general conclusions from the results of this study.
- The study did not include direct observation of MDCCs, due to the time requirements associated with completing ethics applications. The lack of ability to observe MDCC events necessitates the study's reliance on participants' recollection of events, which may not be accurate. The study approach also included questions to participants about their colleagues' actions, which they are unlikely to have observed directly. Apart from reducing the reliability of some of the data collected, it also limited the granularity of the detail collected. The study investigated participants in an MDCC. Without direct observation, it was unable to disaggregate the participants that contribute to the MDCC, and hence potentially add more value, and those that are largely silent.
- The study is almost entirely reliant on primary data collection. The lack of any systematised data collection removed a comparison point to sense check the reliability of the data being collected. Primary data collection, using non-randomised consultations, may also make the study's estimates liable to a higher degree of error.
- The study has only examined the direct labour costs of MDCCs. While this is the main cost driver, some other cost drivers have been identified which are likely to represent much smaller costs compared to labour costs.
- The labour cost estimates for ancillary work connected to MDCCs (e.g. preparing files and writing up notes) should be interpreted cautiously. Not all participants in an MDCC were interviewed. As such, the interviewees were asked to estimate the amount of time their colleagues spent on work connected to an MDCC, before and after one. Interviewees were estimating the time taken by colleagues to complete tasks they did not necessarily directly observe, which is subject to inherent bias. In contrast, the labour cost estimates for the time spent running an MDCC event are more robust, as participants are able to observe trends in who attends, the frequency of their attendance and the typical length of time participants would be present at an MDCC.
- The labour cost estimates do not distinguish between the time component of MDCCs that are devoted to patient cases versus education. Junior Medical Officers (JMOs) and Registrars are often present at MDCC meetings, and are often tasked with performing administrative duties. Several Clinical Directors said education was an important reason for the MDCC, and this also extended to supporting the allied health clinicians.
- Costs associated with activities emanating from an MDCC, such as pathology tests requested after a case conference, are not considered part of the MDCC event, and hence are not included in any cost estimates presented in this report. They are considered part of the normal care process and costed back in that environment.

## 4 Key Findings

### 4.1 The MDCC concept

Multidisciplinary care, team-based care, or integrated care are not new concepts for health care providers and services. The need for multidisciplinary activity has developed and evolved slowly over time to adjust for the clinical and coordination requirements of the clinical unit and the types of patients which they serve. The study found that MDCCs existed in various formats across different hospital settings and regions. While the specific purpose of the MDCCs varied across sites and different clinical settings, each served the general purpose of supporting team-based clinical treatment decision making, care review or service coordination.

Most MDCCs comprised a blend of those functions. Appendix A provides a synopsis of the functions and forms for each of the participating study sites.

#### 4.1.1 General Observations

The existing definition for an MDCC is a strong foundation. Study participants generally agreed that the current definitional criteria was relevant and appropriate to their clinical settings.

There were variations in the purpose, function and format of MDCCs that were observed. In spite of these variations, MDCC's generally fulfilled many of the criteria of IHPA's definition for an MDCC, providing evidence that there are some commonalities in the way MDCCs are conducted irrespective of location or clinical subspecialty.

Study participants acknowledged the value and benefits of a team-based multidisciplinary approach to patient care. The MDCCs allowed the teams to discuss clinical management of the patient and assisted the planning and coordination of care provided by different providers. While the benefits of MDCCs were not formally measured by participants, participants noted that MDCCs offered many benefits and enabled various clinical services to work in a more efficient and effective way, thereby improving the patient's experience and health outcomes. All interview participants agreed that MDCCs, at the minimum, provided an effective forum for communication, staff education and service coordination of care, with one interviewee further suggesting that MDCCs improved the quality of clinical decisions because of peer-review and group consensus of treatment options.

MDCCs often did not meet all definition elements. For definitional elements which were not met, participants largely concurred that additional resourcing would enable them to comply with the remaining criteria, if they were required to do so. It was observed that compliance with the definitional criteria around documentation and record keeping of MDCCs, in particular the requirement to record the start and end time of individual patient discussions, had the weakest level of compliance. Other definition elements that were not consistently complied with across sites included the documentation of MDCC events, listing of attendees at the MDCC, and capturing the details of the goals and outcomes for that patient. The approach in the planning and the creation of the agenda for MDCCs also varied considerably.

Some MDCCs were based on a general criteria (e.g. an MDCC patient list is developed based on the following week's admissions or on patients who completed a blood test last week), while others focused on specific patient groups or for whom a specific and complex problem needed to be resolved (e.g. Child Protection Unit, Head and Neck Oncology). Some MDCCs did not have a prepared patient list in advance of meetings, and clinicians would raise a patient for discussion as required. For some of the MDCCs where the patient list was created using general criteria, it was not often clear whether an MDCC was actually required for each of the patients discussed at that meeting.

Table 4-1 highlights the common and varying features of the MDCCs encountered during the study.

Table 4-1: Summary of features of MDCCs

Common features	Varying features
<ul style="list-style-type: none"> <li>• Most were pre-scheduled (e.g. weekly meeting Monday from 10:00am – 12:00pm).</li> <li>• Mostly medical clinician led (e.g. by a specialist department, such as Paediatrics or Renal Medicine).</li> <li>• MDCCs were used for team communication, information sharing, and service coordination.</li> <li>• MDCCs attendees were predominantly employed by the health site where it was being conducted.</li> <li>• Most concluded with a listing of actions and tasks, without the use of a care plan.</li> <li>• Nearly all did not record a “start time” and “end time” for each of the patient discussed.</li> <li>• Most of the participating MDCCs were an integral part of the specialist department.</li> </ul>	<ul style="list-style-type: none"> <li>• Recording of patient records, attendees, outcomes (some MDCCs were more regimental at record keeping than others).</li> <li>• Use of a structured, pre-defined care plan for each patient discussed.</li> <li>• Method of record keeping of MDCCs.</li> <li>• Complexity of the clinical case discussed.</li> <li>• The specific purpose for the MDCC. Some were largely clinical in nature, others were for team coordination.</li> <li>• Number of patients discussed and the time spent discussing each patient.</li> <li>• The amount of time spent in preparation ahead of the MDCC.</li> <li>• The method for selecting the patient cohort to be discussed at the MDCC.</li> </ul>

Source: KPMG 2016

While the current definition of an MDCC was generally applicable across most of the MDCCs encountered, participants identified that some non-MDCC events may fulfil the definition of the MDCC without them intending to be designed as an MDCC. Examples of these non-MDCC events included:

- A series of business emails – a chain of email conversations about a patient amongst a group of specialists, with email replies posted in different points in time by different individuals, resulting in the development of a conclusion and documentation of a treatment plan for the patient;
- A team meeting – a multidisciplinary team meeting, which is for the review of “clinical referrals and intakes of the week”, resulting in an outcome which appears to be coordinating care for the patient (but there is no documentation of the event or outcomes);
- A clinical coordinator reaching out to different clinicians to gather patient information – in support of a community Hepatitis C clinic, a clinical coordinator physically travels out and communicates with various clinicians in the community over different days to obtain the most recent information about a specific patient to facilitate the hospital’s specialist clinical unit to make a care decision; and
- Fulfilling business compliance obligations – a mental health unit which conducts a multidisciplinary team meeting to review the notes of a list of patients which are required by law to be completed within 90 days, whether there is a clinical need for an MDCC or not.

Boundaries around a valid MDCC should be delineated in order to guide the purpose of an MDCC, improve the outcomes of the MDCCs, and strengthen the quality of data reporting. A criterion relating to the physical or contextual setting of a case conference could address some of the variations identified.

#### 4.1.2 Definition of the MDCC and its applicability to MDCCs encountered

The appropriateness of the existing definition for MDCCs was considered during this study. Participants were asked to consider the applicability of the existing definition against the characteristics of their MDCC events.

*Box 4-1: IHPA's definition for a non-admitted MDCC where the patient is not present*

*In 2014, IHPA undertook work to develop a definition of non-admitted MDCCs where the patient is not present. The definition of a non-admitted MDCC where the patient is not present includes:*

- 1. Non-admitted MDCCs where the patient is not present are:
  - a) a meeting or discussion held between health care providers*
  - b) arranged in advance*
  - c) to discuss a patient in detail and*
  - d) to coordinate care.**
- 2. Non-admitted MDCCs ensure that a patient's multidisciplinary care needs are met through a planned and coordinated approach.*
- 3. A non-admitted MDCC must involve three or more health care providers:
  - a) The health care providers may be of the same profession (medical, nursing, midwifery or allied health).*
  - b) Each participating health care provider must each have a different speciality so that the care provided by each provider is unique.**
- 4. For each non-admitted patient discussed - a multidisciplinary management plan must be in place or developed at the MDCC, and one participating health care provider must record the following items in each patient's clinical record:
  - a) the date of the case conference, and the start and end times at which each patient was discussed during the case conference*
  - b) the names of the participants involved in the discussion relating to the patient and their designations/clinical backgrounds*
  - c) a description of the non-admitted patient's problems, goals and strategies relevant to that MDCC, and*
  - d) a summary of the outcomes of the MDCC.**

*(Note: c. and d. may be completed through documentation (or revision) of a multidisciplinary care plan completed after each non-admitted MDCC where the patient is not present.)*

*Source: IHPA 2016*

*Note: The definition has been re-formatted to enable a more granular analysis in the following section. This has not resulted in a change in textual content.*

Broadly, the services participating in the study tended to comply with the majority of the criteria. Table 4-2 discusses the four criteria that form the definition and explores the issues that were observed as they applied to MDCCs examined in the study. The table provides recommendations to address the issues that have been identified.

Table 4-2: Observations against the MDCC definition

Definition	Observations and considerations
<p><b>1. Non-admitted MDCCs where the patient is not present are:</b></p>	
<p><b>a) a meeting or discussion held between health care providers.</b></p>	<p><b>Observations</b></p> <p>All of the MDCCs involved team discussions across health-related care providers.</p> <p>There were some MDCCs where the discussions also involved non-hospital staff (e.g. Child Protection Unit involved, at various times, additional members, such as the Police, Teachers, and Social Services). This was not a common occurrence.</p> <p><b>Considerations</b></p> <p>Staff that are not employed by the health site should be considered valid participants in the MDCC, for the purposes of the definition.</p>
<p><b>b) arranged in advance.</b></p>	<p><b>Observations</b></p> <p>Most of the MDCCs were arranged in advance in that a recurring meeting time is set across the year.</p> <p>There was a lack of clarity whether each of the patients discussed actually required MDCC input (i.e. a list of patients who had blood tests last week). It was also not always clear whether some MDCC meetings were “not required”, but proceeded anyway because the time was actually “pre-scheduled” in the participants’ diaries.</p> <p>On the other hand, one clinical department (Child Protection Unit) did not have any MDCC set up “in advance” as the MDCC was only set up on an as-required basis where multidisciplinary input was critical for a specific patient’s complex clinical-social issues.</p> <p>Some MDCCs did not have a list of patients to discuss prior to the meeting, but each of the presented cases were raised by clinicians at the meeting. It was not often clear if there are patients who were meant to be discussed at the meeting, but who failed to be raised due to time constraints. Similarly, there may also be occasions where the case may not be intended to be raised, but with spare time available, a clinician may choose to discuss a patient case to fill in the time available.</p> <p><b>Considerations</b></p> <p>MDCCs do not have to be recurring or have a list of patients to be discussed which is assembled prior to the meeting, to be considered valid for the purposes of the definition. However, MDCCs do need to be scheduled, which shall count as being “arranged in advance”.</p>
<p><b>c) to discuss a patient in detail and.</b></p>	<p><b>Observations</b></p> <p>Some MDCCs discussed the patient’s circumstances in detail, prior to a discussion of a care plan. This was to enable other clinicians that had not treated the patient to be able to contribute to the discussion. For MDCCs that needed to cover a large number of patients in a short space of time, participants reported that it was challenging at times to review all aspects of the patient’s health.</p>

Definition	Observations and considerations
	<p><b>Considerations</b></p> <p>This component of the definition should be maintained to support the consideration of patients' conditions and care plans.</p>
<p><i>d) to coordinate care.</i></p>	<p><b>Observations</b></p> <p>Most of the MDCCs fulfilled this criteria.</p> <p><b>Considerations</b></p> <p>None identified.</p>
<p><b>2. Non-admitted MDCCs ensure that a patient's multidisciplinary care needs are met through a planned and coordinated approach.</b></p>	<p><b>Observations</b></p> <p>All study participants agreed that their MDCCs addressed this criteria. A number of MDCCs further expressed that MDCCs are essential to deliver coordinated care.</p> <p><b>Considerations</b></p> <p>None identified.</p>
<p><b>3. A non-admitted MDCC must involve three or more health care providers:</b></p> <p><i>a) The health care providers may be of the same profession (medical, nursing, midwifery or allied health).</i></p> <p><i>b) Each participating health care provider must each have a different speciality so that the care provided by each provider is unique.</i></p>	<p><b>Observations</b></p> <p>Most study participants agreed that they met this criteria.</p> <p>There were, however, variations in the way this criteria was interpreted by study participants. Specifically, some participants identified that MDCCs may involve attendees who did not have a direct (or any) role in the care of the patient.</p> <p>This discussion further highlighted that some MDCCs have an education role for junior staff, and these were seen to be critical and an integral part of team development. There were also clinicians who cited that "team colleagues" attended the MDCC because there would be times when patients are "handed over" during after-hours or for on-call purposes and that it was important for colleagues to know "what's going on with each of the patients", hence the additional attendance.</p> <p>Having clinicians who do not have a direct care role attending could erroneously result in a meeting fulfilling the criteria for an MDCC.</p> <p><b>Considerations</b></p> <p>IHPA should refine the existing definition by clarifying the minimal role for each of the MDCC participants, such as "MDCC attended by at least three clinicians who have a direct clinical/care role for the patient discussed."</p>
<p><b>4. For <u>each</u> non-admitted patient discussed - a multidisciplinary management plan must be in place or developed at the MDCC, and one participating health care provider must record the following items in each patient's clinical record:</b></p>	<p><b>Observations</b></p> <p>There was considerable variation across study sites regarding this criteria. There was little or no demonstrable consistency or systematic method of record keeping across all MDCCs observed.</p> <p>The main differences included: variation in whether documentation of the MDCC event in the clinical notes occurred (or not); where the documentation was made (e.g. clinical notes vs clinicians' own reminder notes); and the type and quality of content which were recorded (e.g. a comprehensive care plan or a simple listing of actions).</p> <p><b>Considerations</b></p> <p>Health sites and patients would benefit from the standardisation of the requirements to develop or update multidisciplinary management plans.</p>

Definition	Observations and considerations
<p><b>a) the date of the case conference, and the start and end times at which each patient was discussed during the case conference</b></p>	<p>Where documentation of the event was made, the date is routinely captured. With the exception of two MDCCs that captured the start times and end times for each patient discussed, all other MDCCs did not record the discussion times for each patient. Where time was recorded, most MDCCs recorded the start-time and the end-time of the <i>entire</i> MDCC (i.e. not of the individual patient discussion).</p> <p><b>Considerations</b></p> <p>Hospitals would need to improve documentation to comply with this component of the definition, as most do not currently have the capability to meet this requirement. This will likely involve the need for additional resourcing.</p>
<p><b>b) the names of the participants involved in the discussion relating to the patient and their designations/clinical backgrounds</b></p>	<p>The listing of attendees was not consistently captured – this was mostly a resource issue. In most instances where attendees were not captured, participants commented that there were indirect ways by which the attendees could be retrieved (e.g. through reviewing the roster of the team or from email trails).</p> <p><b>Considerations</b></p> <p>Hospitals would need to improve documentation to comply with this component of the definition. This will likely involve the need for additional resourcing.</p>
<p><b>c) a description of the non-admitted patient's problems, goals and strategies relevant to that MDCC, and</b></p>	<p>The patient's problems, goals and strategy were not routinely recorded as a separate piece of information. Most MDCCs relied on the lead clinician's knowledge of the patient being discussed or that clinical notes were available at the meeting.</p> <p><b>Considerations</b></p> <p>Hospitals would need to improve documentation to compile documentation to comply with this component of the definition. This will likely involve the need for additional resourcing.</p>
<p><b>d) a summary of the outcomes of the MDCC.</b></p>	<p>Variations existed in the documentation of an "outcome" for an MDCC. The issue is that the purpose of the MDCCs varied so considerably that there is no standard or comparable outcomes which can be captured by the MDCC.</p> <p><b>Considerations</b></p> <p>For service providers participating in an ABF framework where MDCCs are costed separately, consider developing a pre-determined list of outcomes for selection (a taxonomy).</p> <p>Consider the requirement to have a documented purpose of the MDCC or defining the goals of the patient relevant for that MDCC to assist in the identification of outcomes. The lack of purpose and/or goals of the MDCC hinders the identification of outcomes of the MDCC.</p>

Source: KPMG 2016

### 4.1.3 Other considerations

Two other issues arose that may require further consideration by IHPA:

1. MDCCs that fulfil many (or all) of the accepted criteria, but strictly should not fall under the banner of an MDCC:
  - Meetings that are generally considered as routine departmental team meetings in which some patients known to the clinicians are discussed. Such discussions may result in actions initiated and outcomes recorded verbally or informally documented. A valid MDCC should only be considered to have occurred if the outcomes of the MDCC result in an update to the patient's care plan; and
  - Meetings that have multiple health care providers present but less than three of whom have a direct care provider role with the patient.
2. MDCCs that do not fulfil the current understanding of an MDCC, but may be valid to be considered as an MDCC:
  - A clinical team coordinator who assists to coordinate communications with different clinicians by travelling to different locations (e.g. conducting a single disciplinary outpatient clinic one day, then a week later physically travels to a community clinic to discuss the patient with a GP and a community allied health worker a week later). This discussion is then documented in the patient's care plan which confirms at least three different clinicians have been consulted. An actual MDCC does not need to take place, with all conversations captured in a piecemeal fashion; and
  - Email chain discussions with multidisciplinary staff to plan and agree a care approach for a patient. The email trail may continue for days, and the summary may be entered into the patient's clinical records.

A formalised and structured case conferencing process (reflected in both the current and proposed revised definition (see 4.1.4)) is one of several mechanisms that clinicians use to improve the coordination and delivery of care for patients that require multidisciplinary care. There is a risk that if a payment class is introduced for a prescribed form of case conferencing, then it would introduce barriers to other efficacious processes intended to achieve the same outcome for the patient.

The purpose of the study was to assess "how to count, cost and classify MDCCs for non-admitted patients, where patients are not present". The purpose was not to directly assess whether there should be a separate pricing mechanism for MDCCs. Jurisdictional representatives, however, generally considered that MDCCs were a business as usual activity. They recognised that an MDCC is an important component of care for patients with complex care needs but that incorporating it as a separate component of the funding model should only be considered if it added significantly to the utility of the funding model, such as to its explanatory power<sup>7</sup>.

### 4.1.4 Proposed revised definition

The study has provided an opportunity to examine the concept of the MDCC and to explore the defining characteristics of this event. There was general consensus that an MDCC has traditionally involved a "face-to-face" meeting (or via audio-visual means) involving multidisciplinary team members. However, study participants indicated that there are variations in the purpose and format of MDCC events. This insight prompted an explanation of the fundamental purpose of the MDCC. A clear understanding of the purpose of an MDCC is important to ensure that the definition is focused and succinct, and does not inadvertently capture other group meetings. This assessment identified that the primary requirements of MDCCs should satisfy each of the following:

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<sup>7</sup> The term explanatory power refers to the extent to which a funding model explains variations in costs of care delivery.



- the patient has a clearly documented problem (or need) which requires input by a multi-disciplinary team (without which the conclusions cannot be drawn);
- the output (a care plan, strategy, or a form of service coordination approach) to the problem (or need) represents a non-equivocal consensus of the multi-disciplinary members who have a direct role in the care of the patient; and
- the output is formally recognised through documentation in the patient’s clinical record.

The application of a consistent definition of an MDCC will be a crucial component of any move to cost MDCCs as part of a national ABF framework. The MDCC definition needs to differentiate genuine MDCCs from other types of team-based meetings which may exhibit similar characteristics as an MDCC, but were not designed to be such. Therefore, using a well prescribed definition improves the ability to accurately identify and cost genuine MDCCs for counting purposes.

### **Recommendation 1: Refine the current MDCC definition**

Consider the suggested revisions to the current definition of the MDCC and impart the necessary refinements to improve the identification of an MDCC. Once complete, adopt the newly revised MDCC description as the single national definition.

Based on the assessment of the operation of MDCCs across the study sites and the analysis contained above, a proposed revised definition of an MDCC event is contained in Box 4-2. The proposed revised definition does not remove any elements of the existing definition. The proposed additions are marked in bold and red.

#### Box 4-2: Proposed reviewed definition of an MDCC event

The draft definition of a non-admitted MDCC where the patient is not present includes:

1. Non-admitted MDCCs where the patient is not present are:

- a) a meeting or discussion held **concurrently**<sup>8</sup> between health care providers
- b) arranged in advance
- c) to discuss a patient in detail and
- d) to coordinate care.

2. Non-admitted MDCCs ensure that a patient's multidisciplinary care needs are met through a planned and coordinated approach.

3. A non-admitted MDCC must involve three or more health care providers **who have direct care responsibilities for the patient discussed:**

- The health care providers may be of the same profession (medical, nursing, midwifery or allied health).
- Each participating health care provider must each have a different speciality so that the care provided by each provider is unique.

4. For each non-admitted patient discussed - a multidisciplinary management plan must be in place or developed at the MDCC, and one participating health care provider must record the following items in each patient's clinical record:

- a) **the name of the MDCC event**, the date **of the event**, and the start and end times (or duration) at which each patient was discussed during the case conference
- b) the names of the participants involved in the discussion relating to the patient and their designations/clinical backgrounds
- c) a description of the non-admitted patient's problems, goals and strategies relevant to that MDCC, and
- d) a summary of the outcomes of the MDCC.

(Note: c. and d. may be completed through documentation (or revision) of a multidisciplinary care plan completed after each non-admitted MDCC where the patient is not present.)

Source: KPMG 2016

## 4.2 Data collection requirements and feasibility of data collection

### 4.2.1 Current data collection practices

The data collection practices associated with MDCCs and the data requirements to count, classify and cost MDCCs were tested with representatives with from all jurisdictions, in addition to individual services at the health sites.

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<sup>8</sup> Applying the term "concurrent" assumes that staggered conversations between the patient's care clinicians or that email conversations through a group of clinicians are not generally considered as MDCC events.

### *Jurisdiction-level*

Data collection practices concerning MDCCs are not uniform within or between jurisdictions. Some jurisdictions noted that they did not believe they collected any data on MDCCs. No jurisdiction engaged in data collection practices that would enable them to be able to accurately count, classify and cost MDCCs.

### *Health-site level*

There was no systematic collection of data on the conduct of MDCCs at a health site level at the sites visited. Currently data collection is exclusively the responsibility of individual services. More mature MDCCs tend to have data collection templates and will collect data in a PAS.

For example, the Geriatrics and Rehabilitation Unit at Princess Alexandra Hospital in Queensland utilises a PAS that collects the names of the patient, dates of the MDCCs and end time of individual patients discussed. It also enables a continuous update to the patient's clinical record to be made as the MDCC progresses. However, this service did not systematically collect the names of participants and their designations, though this information was available in another system and through email trails.

The service with the most advanced data collection practices was the North Eastern Melbourne Integrated Cancer Service (NEMICS). The service collected names and designations of participants (for most tumour streams), patients and date of the MDCC in a systematic approach. This was supported by 1.5 Full-Time Equivalent (FTE) staff who were dedicated to providing administrative support to 12 MDCCs.

Less developed services tended to have ad hoc (e.g. in a spreadsheet that was stored in a staff member's hard drive) to non-existent data collection practices (e.g. accessible retrospectively by examining email trails).

## **4.2.2 Feasibility of data collection**

The current state of data collection does not enable the counting and classification of MDCCs at a jurisdictional level in a systematic manner. In addition, the current state of data collection at individual health sites would not enable the counting, classification and costing of MDCCs either, based on interviews with services at seven health sites around the country. Nearly all services interviewed would not satisfy all aspects of IHPA's definition of an MDCC, and more significantly, would not be able to provide an auditable accounting of the conduct of MDCCs if they did satisfy the definitional requirements.

A key challenge for the health sites and jurisdictions is that PAS are configured around activity where the patient is present. The need to capture activity where the patient is not present poses system challenges. In several consultations with jurisdictional representatives, it was proposed that this could be remedied through the introduction of a special flag in PAS, which would be used for MDCCs where the patient was not present. MDCCs also pose a challenge where clinicians from multiple health sites, or clinicians from private practice, participate. While this situation tended to be rare amongst the health sites that were visited, it occurred in around 15 per cent of services with MDCCs. Understanding how the funding for MDCCs in these circumstances would be allocated, and the technical requirements to do so, is another consideration.

Collecting data on participants attending MDCCs could also be hampered by the dynamic nature of some larger MDCCs at tertiary hospitals. In these MDCCs, it was stated that a large number of clinicians (i.e. 20-30) are present, however some will arrive and depart throughout the course of the MDCC. The mean length of time discussed per patient could be two to four minutes over the course of an hour. The administrative task of keeping track of who is present in the room in such a circumstance, in addition to other compliance duties associated with the definition, could be onerous.

The jurisdictional representatives indicated that the technological challenges involved in reconfiguring systems to be able to count and classify MDCCs are high. For example, representatives from New South Wales and South Australia indicated that the system changes needed to be able to count and

classify MDCCs could take two years or longer to implement, and require a significant, though unspecified capital investment.

Clinicians in the services consulted, which did not collect the level of data necessitated by IHPA's definition, often indicated that they would be able to do so, if there was funding associated with the MDCC. This thinking was often conveyed when they were hypothesising about the feasibility of an expanded data collection for their own service. However, clinicians often failed to consider the technological issues in a whole-of-health site, state-wide or national context, whereby inter-operability of a proposed data reporting and collection solution was paramount.

In summary, the required data collection could be undertaken, if sufficient resources were devoted to upgrading the existing PAS. However, this is unlikely to be a feasible option in the short term. The short term alternative option is for health sites and jurisdictions to record the necessary data outside of the traditional PAS frameworks, for example, in excel spreadsheets. However, there is inherent risk in collecting and storing data in relatively unstructured formats, which can result in high levels of error. It would also add to the existing complexity in data collection systems that health sites utilise.

#### **4.2.3 Implications for counting MDCCs:**

The accurate inclusion and counting of MDCCs require:

- a well-described definition of an MDCC;
- a governance mechanism to guide the consistency in the application of the definition; and
- a reliable mechanism for data capture.

#### 4.2.4 Analysis of existing counting rules as applied to current MDCCs as observed

The purpose of this analysis is to assess the extent to which the counting rules for non-admitted patient service events could be adapted for the MDCCs which have been observed across the studies. Subsequent to this exercise, a proposed draft of a revised counting rule for MDCCs has been developed for consideration (See Section 4.2.5).

Table 4-3: Analysis of counting rules and associated definition against MDCCs observed

	IHPA definition & counting rules	Description of counting rule and associated definitions	Observation and considerations against rule / definition
a.	The non-admitted patient service event	<p>A non-admitted patient service event:</p> <ul style="list-style-type: none"> <li>• is an interaction between one or more health care provider(s) with one non-admitted patient, and which must contain: <ul style="list-style-type: none"> <li>a) therapeutic / clinical content; and</li> <li>b) result in a dated entry in the patient’s clinical record.</li> </ul> </li> <li>• The interaction includes assessment, examination, consultation, treatment and / or education.</li> </ul>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>• This is a description of a non-admitted service event which provides the core characteristics of a non-admitted patient service event.</li> <li>• A new description more applicable to an MDCC, needs to be incorporated.</li> </ul> <p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>• Replace this description with the recommended modified definition of an MDCC as the definition of the “service event” – this is on Table 4-2</li> <li>• Note other requirements discussed in this table relating to: <ul style="list-style-type: none"> <li>• Inclusion of recording of participants “who are directly involved in the care of the patient” into the clinical notes.</li> <li>• Consider restricting a permissible range of “purpose” or “objectives” of the MDCC for which the event should be counted</li> </ul> </li> <li>• Recording into the clinical record of the MDCC event should be documented as a mandatory function for clarity and audit purposes</li> </ul>
b.	General counting rules for ABF purposes	<ol style="list-style-type: none"> <li>1. A non-admitted patient service event is only counted once on a given calendar day for a patient at a clinic regardless of the number of health care providers involved.</li> <li>2. Services provided to patients in the admitted or emergency department settings must not be counted as non-admitted patient service events.</li> <li>3. Non-admitted services events delivered via telehealth where two public hospital service non-admitted clinics are involved are counted twice. One service event is counted at the clinic</li> </ol>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>• This rule needs to be modified to be applicable to MDCCs.</li> <li>• Some MDCCs occur immediately prior, or follow, a non-admitted service event such as an outpatient clinic appointment to which the same patient attends. (e.g. the MDCC is established deliberately to assist with coordinating the outpatient clinic – it should be clarified by IHPA whether MDCCs are counted as separate events under these circumstances)</li> </ul> <p><b>Considerations:</b></p>

	IHPA definition & counting rules	Description of counting rule and associated definitions	Observation and considerations against rule / definition
		<p>where the patient attends and one service event is counted at the clinic providing the consultation.</p> <p>4. Procedures performed by the patient in their own home without the presence of a health care provider may be counted as a non-admitted patient service event.</p>	<ul style="list-style-type: none"> <li>Consideration should be given to how counting rules apply for MDCCs that occur immediately before and/or following an outpatient clinic for which the same patients attends. (This study proposes that MDCCs occurring either immediately before or following an outpatient clinic should be counted separately. The main rationale being that such an MDCC would be counted in if it occurred at a different time of the day or on a different day to the clinic).</li> </ul>
c.	Non-admitted patient service events involving multiple health care providers	<ol style="list-style-type: none"> <li>Non-admitted services involving multiple health care providers are counted as one non-admitted patient service event.</li> <li>Irrespective of whether the patient was seen jointly or separately by multiple providers, only one non-admitted patient service event may be counted for a patient at a clinic on a given calendar day.</li> <li>The multiple health care provider indicator can be used to identify service events with three or more health care providers (each from a different specialty).</li> </ol> <p>The health care providers may be of the same profession (medical, nursing or allied health) but they must each have a different speciality so that the care provided by each provider is unique and meets the definition of a non-admitted patient service event. The data element <i>Multiple health care provider status</i> is included in the Non-Admitted Patient Care Data Set Specification to record this type of non-admitted patient service event.</p>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>This rule is relevant for MDCCs.</li> <li>Point 2. will need further consideration. Nearly all MDCCs discussed the patient in a form of a meeting at a point in time. Exceptions observed during the study were (i) staggered email discussions about the same patient across a chain of multidisciplinary group emails and (ii) staggered clinician meetings (e.g. two clinicians at a time) where a patient's care is discussed in a coordinated way across clinical settings (e.g. community and in the hospital), across different times of the day (or week). (This study proposes that email-based MDCCs discussions should not be included for MDCC counts because they are often unstructured and difficult to qualify clinician consensus without a clear set of rules around email discussions being introduced).</li> <li>Point 3. all MDCCs met the multiple provider rule.</li> </ul> <p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>IHPA to consider if staggered email conversations or staggered clinician meetings constitute MDCCs. (This study proposes that this mechanism should only be considered if the medical documentation affirms the participation of appropriate clinicians, and that the documented plan is medico-legally binding to all named participants and the hospital entity).</li> </ul>
d.	Multiple services on the same day	<ol style="list-style-type: none"> <li>For multiple non-admitted patient service events to be counted on a given day, the patient must have attended separate clinics where they received a service that meets the definition of a non-admitted patient service event.</li> </ol>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>This rule is relevant for MDCCs, with modifications to the wording to reflect that the event is for an MDCC.</li> </ul>

	IHPA definition & counting rules	Description of counting rule and associated definitions	Observation and considerations against rule / definition
		<ol style="list-style-type: none"> <li>2. If the non-admitted patient service event was intended to be unbroken, but due to circumstances the health care provider was called away and returned later, then only a single non-admitted patient service event must be counted.</li> <li>3. Appointments at clinics where services are provided by multiple health care providers must not be counted as separate non-admitted patient service events in order to count increased non-admitted patient service events.</li> <li>4. Clinics where services are provided by multiple health care providers must not be registered as separate clinics in order to count increased non-admitted patient service events.</li> </ol>	<ul style="list-style-type: none"> <li>• Point 1. will need further consideration. Generally MDCCs discussed are distinct from one another and would not easily be duplicated due to their time, purpose, subject discussed and attendees.</li> </ul> <p>Exceptions relating to this issue are where the MDCC takes place either immediately before or after an outpatient clinic (e.g. Paediatric Endocrine MDCC, Refugee Health for Paediatrics MDCC, and Head and Neck MDCC).</p> <p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>• Consideration should be given to MDCCs which occur immediately before or after an outpatient clinic in which the same patients are seen and discussed in both events by the same clinicians.</li> </ul>
e.	Services delivered via information and Communication Technology (ICT)	<ul style="list-style-type: none"> <li>• Consultations delivered via ICT must involve an interaction between at least one health care provider and the patient. Hence, the presence of the patient is required at one location. The interaction must be the equivalent of a face to face consultation. That is, both health care provider and patient interacting in a mutually responsive manner within a short timeframe.</li> <li>• Consultations delivered via ICT must be a substitute for a face to face consultation to be counted as a non-admitted patient service event. That is, the consultation must contain therapeutic/clinical content and be equivalent in content in the sense that if the consultation could not be provided via ICT, a face to face consultation would have occurred.</li> <li>• Administrative phone calls, such as booking or rescheduling appointments, must not be counted as non-admitted patient service events.</li> <li>• Consultations delivered via ICT may be counted by the public hospital service providing the consultation service (provider end), and by the public hospital service where the patient is present (receiver end).</li> </ul>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>• This rule is relevant for MDCCs as some MDCCs can include clinicians from remote locations.</li> </ul> <p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>• Modification of this rule to adopt MDCC services.</li> </ul>

	IHPA definition & counting rules	Description of counting rule and associated definitions	Observation and considerations against rule / definition
f.	Patient education services	<ul style="list-style-type: none"> <li>The patient education service must contain therapeutic/clinical content in order to be counted as a non-admitted patient service event.</li> <li>The patient education service must be documented in the patient's clinical record in order to be counted as a non-admitted patient service event.</li> <li>Staff education and training must not be counted as a non-admitted patient service event.</li> </ul>	<p><b>Observation:</b></p> <ul style="list-style-type: none"> <li>The matter of patient education is not applicable to MDCCs.</li> <li>The statement relating to staff education is applicable to MDCCs.</li> </ul> <p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>Modify this rule by removal of the points relating to patient education and retaining the statement relating to staff education.</li> </ul>
g.	Services provided to groups	<ul style="list-style-type: none"> <li>A non-admitted patient service event is to be counted for each member of the group that receives a service containing therapeutic/clinical content.</li> <li>The interaction must be documented in the individual patient clinical records in order to be counted as non-admitted patient service events.</li> <li>Family members seen together can each be counted as non-admitted patient service events as long as each family member was provided with therapeutic/clinical input and a dated entry was made in each family member's clinical record.</li> <li>Family members/carers accompanying a patient to an appointment must not be counted as additional non-admitted patient service events when they did not receive a service meeting the definition of a non-admitted patient service event.</li> </ul>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>This rule is relevant as some MDCCs (Refugee Health) discuss patients as the whole family, with each member having specific issues to be addressed.</li> </ul> <p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>Modify the rule so that MDCCs discussing family members only count as one MDCC event. However, if family members are also patients and their care needs are formally considered, they need to be treated with a separate MDCC (as consistent with current non-admitted practice).</li> </ul>
h.	Non-admitted services provided to admitted patients	<ul style="list-style-type: none"> <li>Any service provided by non-admitted clinic staff to an admitted patient of the hospital must not be counted as a non-admitted patient service event.</li> <li>Any attendance or appointment by an admitted patient of the hospital at a non-admitted service must not be counted as a non-admitted patient service event.</li> </ul>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>This rule is relevant for MDCCs.</li> </ul> <p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>Modify to refer to MDCC.</li> </ul>



	IHPA definition & counting rules	Description of counting rule and associated definitions	Observation and considerations against rule / definition
i.	Diagnostic services	<ul style="list-style-type: none"> <li>Services provided by diagnostic clinics are an input or intermediate product to a non-admitted patient service event.</li> <li>Non-admitted services provided by diagnostic clinics must be linked to the related non-admitted patient service event in the costing data.</li> <li>Where hospital costing systems do not enable a diagnostic service to be linked directly to a non-admitted patient service event, the diagnostic service must be linked to an appropriate non-admitted patient service event within a thirty day range. The thirty day range is thirty days either side of the date the diagnostic service was provided.</li> <li>Diagnostic services that are not able to be linked, either directly or using the thirty day range, must not be counted as non-admitted patient service events.</li> </ul>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>Decisions to undertake diagnostic services for an MDCC or as a consequence of an MDCC presumably would not be associated with an MDCC and form part of a patient non-admitted service event.</li> <li>A number of MDCCs (oncology related clinics) have Radiologists and Pathologists present as an integral part of the MDCC.</li> </ul> <p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>Add clarification that diagnostic services associated with an MDCC are part of a non-admitted patient service event not part of the MDCC.</li> </ul>
j.	Services not counted as non-admitted patient service events	<ul style="list-style-type: none"> <li>Travel by a health care provider, or transport services provided to a patient, must not be counted as a non-admitted patient service event.</li> <li>Care planning or case coordination activities conducted on behalf of a patient but without the patient being present must not be counted as a non-admitted patient service event.</li> <li>Services which do not deliver clinical care do not meet the definition of a non-admitted patient service event and must not be counted. For example, home cleaning, meals on wheels and home maintenance.</li> </ul>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>This rule excludes MDCCs as a non-admitted event.</li> </ul> <p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>Modify this rule to refer to MDCCs.</li> </ul>
k.	Counting of home delivered renal dialysis, nutrition procedures, home ventilation	<ul style="list-style-type: none"> <li>When reporting to the non-admitted patient care data set specifications, temporal care bundling applies to the following services: <ul style="list-style-type: none"> <li>Haemodialysis – home delivered</li> <li>Peritoneal dialysis – home delivered</li> <li>TPN – home delivered</li> </ul> </li> </ul>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>This rule is not relevant to MDCCs.</li> </ul> <p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>Do not include in MDCC rules.</li> </ul>

	IHPA definition & counting rules	Description of counting rule and associated definitions	Observation and considerations against rule / definition
		<ul style="list-style-type: none"> <li>• Enteral Nutrition – home delivered</li> <li>• Ventilation – home delivered</li> <li>• In relation to the above services, all non-admitted patient sessions performed per month are to be bundled and counted as one non-admitted patient service event per patient per calendar month regardless of the number of sessions.</li> </ul>	

Source: KPMG 2016

#### 4.2.5 Proposed revised counting rule for MDCCs

The following section contains proposed revised counting rules for MDCCs.

Table 4-4: Proposed revised counting rules for MDCCs

	Considerations	Rules
a.	The non-admitted MDCC event where the patient is not present	<p>1. Non-admitted MDCCs where the patient is not present are:</p> <ul style="list-style-type: none"> <li>a) a meeting or discussion held <b>concurrently</b><sup>9</sup> between health care providers</li> <li>b) arranged in advance</li> <li>c) to discuss a patient in detail and</li> <li>d) to coordinate care.</li> </ul> <p>Non-admitted MDCCs ensure that a patient’s multidisciplinary care needs are met through a planned and coordinated approach.</p> <p>2. A non-admitted MDCC must involve three or more health care providers <b>who have direct care responsibilities for the patient discussed:</b></p> <ul style="list-style-type: none"> <li>• The health care providers may be of the same profession (medical, nursing, midwifery or allied health).</li> <li>• Each participating health care provider must each have a different speciality so that the care provided by each provider is unique.</li> </ul>

<sup>9</sup> The use of “concurrent” assumes that staggered conversations between the patient’s care clinicians or that email conversations through a group of clinicians are currently not accepted forms of MDCC.

	Considerations	Rules
		<p>3. For <u>each</u> non-admitted patient discussed - a multidisciplinary management plan must be in place or developed at the MDCC, and one participating health care provider must record the following items in each patient's clinical record:</p> <ul style="list-style-type: none"> <li>a) <b>the name of the MDCC event</b>, the date <b>of the event</b>, and the start and end times (or duration) at which each patient was discussed during the case conference</li> <li>b) the names of the participants involved in the discussion relating to the patient and their designations/clinical backgrounds</li> <li>c) a description of the non-admitted patient's problems, goals and strategies relevant to that MDCC, and</li> <li>d) a summary of the outcomes of the MDCC.</li> </ul> <p>(Note: c. and d. may be completed through documentation (or revision) of a multidisciplinary care plan completed after each non-admitted MDCC where the patient is not present.)</p>
<b>b.</b>	General counting rules for ABF purposes	<ol style="list-style-type: none"> <li>1. MDCCs for patients in the admitted or emergency department settings must not be counted as MDCC events.</li> <li>2. MDCCs occurring immediately prior to, or immediately following, an outpatient clinic to which the same patients discussed will attend are counted separately as an MDCC event.<sup>10</sup></li> </ol>
<b>c.</b>	MDCC events involving multiple health care providers	<ol style="list-style-type: none"> <li>1. MDCCs involving multiple health care providers are counted as one MDCC event.</li> <li>2. Irrespective of whether the patient was seen jointly or separately by multiple providers belonging to the same MDCC team, only one MDCC event may be counted for a patient on a given calendar day.</li> <li>3. The clinicians may be of the same profession (medical, nursing or allied health), though if this occur, the clinicians must each have a different speciality, so that the clinicians are addressing a different care need of the patient. The data element <i>Multiple health care provider status</i> is included in the Non-Admitted Patient Care Data Set Specification to record this type of non-admitted patient service event.</li> </ol>
<b>d.</b>	Multiple MDCCs on the same day	<ol style="list-style-type: none"> <li>1. For multiple MDCCs to be counted on a given day, the patient must have been discussed in separate MDCCs where each of the different MDCC events in which the patient was discussed meets the definition of an MDCC (e.g. on the same day, a patient may be discussed separately in an Oncology MDCC and in a Musculoskeletal MDCC, both of which had a different and unique focus on the patient's issues)</li> <li>2. If the MDCC was intended to be unbroken, but due to circumstances the health care provider was called away and returned later, then only a single MDCC must be counted.</li> </ol>

<sup>10</sup> See notes below in *Considerations*

	Considerations	Rules
		3. One MDCC event is counted regardless of the number of health care providers attending (noting that rules regarding the minimum number (3) and the mix of providers).
e.	MDCCs delivered via Information and Communication Technology (ICT)	<ul style="list-style-type: none"> <li>MDCCs delivered via ICT must be the equivalent to a face to face MDCC.</li> <li>MDCCs delivered via ICT must be a substitute for a face to face MDCC to be counted as an MDCC event. That is, the MDCC must fulfil the definition of an MDCC.</li> </ul>
g.	MDCCs provided to groups or families	<ul style="list-style-type: none"> <li>MDCCs that discuss family members of the patient are counted as a single MDCC event.</li> <li>MDCCs that discuss family members that are also patients and who have their care needs formally considered (with relevant detail being recorded in the patient record) can be considered a separate MDCC event.</li> </ul>
h.	MDCCs to admitted patients	<ul style="list-style-type: none"> <li>Any MDCCs provided by non-admitted clinic staff to an admitted patient of the hospital must not be counted as an MDCC event.</li> <li>Any MDCC discussion of an admitted patient of the hospital must not be counted as an MDCC event.</li> </ul>
i.	Diagnostic services MDCCs	<ul style="list-style-type: none"> <li>MDCCs led by diagnostic clinics can be counted as MDCC events, providing they meet all other requirements.</li> </ul>

The following items, and how they are incorporated in the counting rules, require further consideration by IHPA:

- Consider whether MDCCs which are directly associated with an outpatient clinic should be counted as a separate event. This study proposes that MDCCs of this type should be counted as a separate MDCC event because they have a specific clinical planning purpose (e.g. without which the clinic will not run efficiently). In addition, it would be conceivable that the same MDCCs taking place at a different time of the day or week, but not so closely associated in time to the actual clinic, would be counted as MDCCs in the same way other MDCCs are counted;
- Consider whether MDCCs provided by clinicians from another hospital who participate on an MDCC via ICT should be counted as separate MDCCs, once for the hospital hosting the MDCC event, and once for the participating clinician. This study proposes that only one MDCC event should be recorded where clinicians from multiples sites participate. The incidence of clinicians from multiple health sites participating in MDCCs was minimal; and
- Consider if MDCC email discussions could be counted as MDCC events. This study proposes that email-based MDCCs discussions should not be included for MDCC counts because they are often unstructured and difficult to qualify clinician consensus without a clear set of rules around email discussions being introduced.

### **Recommendation 2: Revise the existing Counting rules**

Consider the suggested counting rules for MDCCs to support the proposed MDCC definition.

### 4.3 Assessment of costing rules

Recently, the costing of the non-admitted product category in public hospitals has been improving across the various jurisdictions. The improvements in the non-admitted statistics collected between Round 17 and Round 18 is evident.<sup>11</sup> This includes:

- 24.2 per cent increase in the number of hospitals submitting non-admitted data;
- 26.6 per cent increase in the number of service events identified; and
- 13.0 per cent increase in the total expenditure collected.

For round 18 there were approximately 16 million service events with a reported \$4.5 billion in expenditure. This equated to an average cost per service event of \$282 which is a decrease of 10 percent from Round 17. The decrease in costs has been identified by both Queensland and New South Wales improving both the reporting and costing of non-admitted data. Round 18 did not include South Australia as they did not submit data, however South Australia has added non-admitted data to their submission for Round 19, again indicating that jurisdictions are improving the ability to report and cost non-admitted data.

As discussed, the key cost driver for an MDCC is the clinicians' time and in turn salaries and wages. For the majority of jurisdictions (some Queensland hospitals are an exception) the allocation of a clinician's time to the non-admitted category is via the use of patient fractions (PFRACs). This allocation is generally communicated by staff who estimate the amount of time a week/month they spend in the outpatient clinic, which is entered as a percentage in the respective costing system of the hospital.

The other component to the non-admitted cost category is the service event. Traditionally a service event has been identified via the clinic booking system on a one to one relationship (e.g. number of appointments for any given day/week). The reporting in this area is beginning to become more sophisticated. In one jurisdiction they have overlaid booking clinic information with new/review weights from a recent IHPA costing study to allocate medical, nursing and administration time. Similarly, other sites are recording the duration of each appointment and reporting this information through the respective costing system.

When analysing how the standards currently facilitate this data capture it was important to refer to those standards that include a reference to non-admitted products. The standards are listed below, including an outline of the current standard, data capture guidelines and commentary on any changes (if any) that may need to be considered to better capture the MDCC event.

Table 4-5: Assessment of costing rules

Costing rules	Observations and considerations
<p><b>SCP 1.004 – Hospital Products in Scope</b></p> <ul style="list-style-type: none"> <li>• <b>The standard states that hospitals will allocate costs to all hospital products grouped into the various categories.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Non-admitted patient products are listed as one of the categories and the guidelines suggest NHDC clinics are listed in this category.</li> </ul> <p><b>Considerations</b></p> <ul style="list-style-type: none"> <li>• This standard allows for the allocation of costs to the non-admitted patient product.</li> <li>• No change required to this standard.</li> </ul>

<sup>11</sup> IHPA (2016), Australian Public Hospitals Cost Report 2013-2014 Round 18, National Hospital Cost Data Collection, Independent Hospital Pricing Authority, accessed 4 October 2016, <https://www.ihsa.gov.au/sites/g/files/net636/f/publications/nhcdc-round18.pdf>

Costing rules	Observations and considerations
<p><b>SCP 3.001 – Matching Production and Cost</b></p> <ul style="list-style-type: none"> <li><b>The standard states that costs taken from various systems will be used to achieve the best match of production to cost measures at the various sub levels of product category.</b></li> </ul>	<ul style="list-style-type: none"> <li>Once all overhead cost centres have been allocated to final cost centres this then allows cost centres with fully absorbed costs to be assigned to product categories.</li> <li>In order to match the costs for the non-admitted clinics, the biggest component being labour, the allocation of a clinicians cost is generally derived by consultation to determine the percentage of time the clinician spends in the non-admitted clinic.</li> <li>The final level of granularity includes end-classes in each product category, this is where allocations can be made directly to an individual patient service event. In order for non-admitted patient events to be captured at the patient level (even if the patient is not present), the clinic booking system may be the starting point for capturing the level of information required (e.g. clinician time spent, patient information and meeting outcome).</li> </ul> <p><b>Considerations</b></p> <ul style="list-style-type: none"> <li>This standard allows for the capture of costs at the fourth level (end-classes), the limitation is the ability of the feeder system to capture the required information.</li> <li>No change required to this standard.</li> </ul>
<p><b>SCP 3F.001 - Matching Production and Cost – Order Request Point</b></p> <ul style="list-style-type: none"> <li><b>The standard states that all hospitals will ensure that intermediate products/services ordered as part of patient service events are allocated to one of the various product categories.</b></li> </ul>	<ul style="list-style-type: none"> <li>As the MDCC does not include any intermediate products or the patient, the assumption is that the Imaging or Pathology test has already been ordered, captured and allocated to the patient via the respective feeder system.</li> <li>As discussed above, the outcome of the MDCC may result in the need for an intermediate product however the result of the outcome or change in care plan would revert back to the 'normal care process' and that point would be the order request point which this standard captures.</li> </ul> <p><b>Considerations</b></p> <ul style="list-style-type: none"> <li>This standard allows for the capture of costs at the point of ordering, in the case of an MDCC the tests are generally presented after the fact and order request has already been allocated to the respective category.</li> <li>No change required to this standard.</li> </ul>
<p><b>COST 3A.001 - Allocating Clinical Salary and Wages to patients and other products</b></p> <ul style="list-style-type: none"> <li><b>This standard states that clinical salary and wage expenses held in departmental cost centres should be allocated to product categories of admitted and non-admitted patients before being allocated to patients.</b></li> </ul>	<ul style="list-style-type: none"> <li>This standard follows on from the discussion in SCP 3.001 in regards to the cost allocation to the final level of granularity in each product category.</li> <li>In general the allocation of clinicians' time to the non-admitted product category is relatively straight forward and already prevalent with the use of patient fractions, after consultation with the respective clinician. The issue then arises in allocating this to the patient level particularly when the information captured in the non-admitted environment is not as refined as admitted information capture.</li> </ul> <p><b>Considerations</b></p> <ul style="list-style-type: none"> <li>This standard allows for the allocation of costs to the non-admitted product category, which is probably already occurring in the respective health services, the limitation is the ability of the feeder system to capture the required information to allocate costs to the MDCC event.</li> </ul>

Costing rules	Observations and considerations
	<ul style="list-style-type: none"> <li>No change required to this standard.</li> </ul>
<p><b>COST 5.002 – Treatment of Work-In-Progress Costs</b></p> <ul style="list-style-type: none"> <li><b>This standard refers to the allocation of patient costs in the reporting period regardless of whether the service event is completed or commenced and that the cost and activity is reported in each period.</b></li> </ul>	<ul style="list-style-type: none"> <li>The reference to non-admitted episodes is purely stating the definition of a patient service event that has commences consuming services and/or treatment that may need to be captured under this standard.</li> </ul> <p><b>Considerations</b></p> <ul style="list-style-type: none"> <li>This standard allows for the capture of non-admitted service events to be considered Work-In-Progress. This may not be applicable in this instance as the MDCC event should not cross reporting periods.</li> <li>No change required to this standard.</li> </ul>
<p><b>COST 6.001 – Intermediate Product/Service Matching Method</b></p> <ul style="list-style-type: none"> <li><b>This standard states that intermediate products/services will be costed to the patient service event in which they are ordered or prescribed. Where there are multiple possibilities for attribution, the point of referral or the prescribed matching preference order (outlined in the standard) must be used.</b></li> </ul>	<ul style="list-style-type: none"> <li>Similar to the discussion in SCP 3F.001 as the MDCC does not include the patient, the assumption would be that the respective test has already been ordered, captured and allocated to the patient.</li> <li>The reference to the non-admitted service event relates to the matching of an intermediate product/service where there are multiple options for matching within the prescribed 'time window' of a service event for the same patient. The non-admitted category is the last preference in matching.</li> </ul> <p><b>Considerations</b></p> <ul style="list-style-type: none"> <li>This standard prescribes the allocation of patient services when ordered and the particular order to match if there are multiple possibilities. In the case of an MDCC there are no intermediate products and any tests that are presented the order request has already been allocated to the respective category and patient.</li> <li>No change required to this standard.</li> </ul>

Source: KPMG 2016

### 4.3.1 Discussion

Accurately capturing the costs relating to MDCCs relies on the allocation of clinical salary and wages to the patient event. This is particularly difficult in the outpatient clinic environment where the administrative burden just to accurately record appointment times, clinician details and length of time, have been discussed throughout other IHPA projects. If this information is captured correctly then the next challenge is the data storage and data integration with the respective costing software implemented at the health service.

In essence, the ability to capture this data in the respective costing software will not be limited by the current standards. The technical costing method of setting up a new area for MDCCs in a costing system and having costs allocated to that area, via patient fractions, are no different to costing other service events. However, the granularity at the fourth level of costing is where the challenges exist for those hospitals that do not have the respective feeder systems that cover the specific area attempting to be costed. As discussed in the guidelines for COST 3A.001:

“there are rarely all-encompassing feeder systems for the recording of clinical activity associated with the patients or other products in product categories”

In summary, the standards are broadly sufficient. The challenge is the lack of data in capturing the cost drivers to allow hospitals to accurately determine the cost of the MDCC event without imposing a greater administrative burden. In general, the standards are not specific to every service event, they

are a guideline, and as such the need to modify the current standards to pick up this service event appear unnecessary.

## 4.4 Discussion of proposed classification

This section draws on the previous section to explore the implications of the changes.

### 4.4.1 Potential classifications of MDCCs

The study reviewed the current Tier 2 Non-Admitted Classification. Specifically, it examined the applicability of the Tier 2 classification against the core characteristics of MDCCs encountered. This analysis was completed against the two levels within the classification structure: Groups and Classes. The four Groups are subdivided into 141 Classes of subspecialties. The MDCCs encountered would potentially be assignable to a type of service, which relates closely to the topic of the MDCC in question.

The Group-specific classification supports some elements of the MDCC model, as the classification makes provision for clinics that are composed of two or more specialisations. MDCCs under the current definition require three or more subspecialties to participate in the case conference. Classes are the Tier 2 classification categories used to classify each non-admitted event. They are subsets of Groups. Specialisations may be formed around the clinician, patient condition, patient population group or type of care, which are provided to a patient.

An MDCC event can potentially be classified using the existing Tier 2 non-admitted service classification. There are three options for classifying MDCCs:

1. Add a fifth Group. This would be the simplest way of classifying an MDCC event using the existing mechanism. The fifth Group could have Classes underneath it. Several potential categories for the Classes are considered in the following section.
2. Add a Class for an MDCC event within the "Medical Consultation" Group. This Group is the relatively more suitable one for including an MDCC event, as MDCC events cannot be considered to be a diagnostic or procedural service. This would have the consequence of excluding 'allied health only' events which may therefore require separate consideration.
3. Split each of the 55 Classes of subspecialties within the "Medical Consultation" Group into two, so that each subspecialty has a Class one for instances where an MDCC event occurs, and one Class for instances where they do not. However, this option results in the creation of a large number of new Classes, which adds to complexity.

Both options two and three would need rules on how to allocate MDCC events, as they are utilising mechanisms that were designed for uni-disciplinary, as opposed to multidisciplinary, care. For instance, MDCC events involving multiple medical clinicians can only be allocated to one subspecialty class. In addition, rules would be needed to allocate MDCC events that did not have any medical clinicians participating.

### 4.4.2 An alternative approach to MDCC classification for consideration

An integral component of this study is to understand the functions of the various MDCCs and to gather information about the various characteristics or key patterns to identify any distinct, mutually exclusive and well-described categories upon which a reliable classification system can be developed.

Classifications of MDCCs would allow observers to group and organise MDCC types meaningfully and systematically into service types that would be characteristically distinguishable across the different MDCCs. At the same time, MDCCs within the classifications will need to be clinically and resourcefully homogeneous in order to provide a consistent approach to counting and costing.



The process in differentiating and grouping of different MDCCs is dependent on the purpose of the classification system. As this study relates to resourcing and costing, the focus of the analysis is around variables which relate to cost. Therefore, the study is designed to further understand the rationale for differences in resource use which, in turn, are driven by the objectives of MDCCs.

While the study did not test the robustness of the different variables, the principles in considering potential MDCC Classes include:

- Comprehensiveness – that the MDCC Classes should be applicable for every type of MDCCs observed;
- Clinically meaningful – that each MDCC Class should be clinically meaningful to enable consistent and accurate class allocation, effective engagement with the clinical community and improve the quality of data collected;
- Simplicity – the MDCC Classes should be intuitive and simple to adopt. The number of MDCC classes should be kept to a low number, easily understood by service providers, and be aligned with classes where they already exist in the Australian health system;
- Homogeneous resource use – that the amount and type of resources used for each of the MDCC Classes should be largely homogeneous; and
- Flexibility – that the MDCC classification system should be flexible to accommodate a range of options, for different clinical contexts and to adopt potential changes to policies or technological advances.

This study considers the following key variables to be relevant for the MDCCs observed. Further classification considerations will be highlighted in the discussion for each category.

#### *Classify by Clinical Subspecialty Unit*

Clinical subspecialty is an important consideration because different subspecialties, or different departments, have their own cost-centres which manage and allocate their costings to various activities across services.

Certain subspecialties with complex health management issues (e.g. oncology) are more likely to have larger teams and members of staff than other subspecialties, such as rehabilitation.

Most of the observed MDCC belonged under a clinical subspecialty unit. The types of units therefore will follow the national classification of different specialist departments, and this has been addressed by the current Tier 2 Non-Admitted Services Classification.

#### *Classify by Clinical Complexity*

Many MDCCs have been developed to facilitate a multidisciplinary approach to problem solving the clinical-social issues of the patients (e.g. MDCCs for the Child Protection Unit, Refugee Health, Head and Neck). Complex health disciplines such as Oncology, Acquired Brain Injury and Paediatrics often have complex clinical-psycho-social needs, and therefore the MDCCs often require more specialists or more time to address the needs of patients. On the other hand, other MDCCs are relatively simpler and may not require multiple specialists (e.g. MDCCs for weekly referral intake review, geriatric rehabilitation).

Closely related to the concept of complexity is *New vs Follow-up* patients. It was generally agreed by stakeholders that *new patients* often require more time to understand and analyse their health issues in comparison to patients who are already known to the hospital staff. Accordingly, MDCC reviews for *follow-up* patients are generally simpler and require less time than for *new patients*.

### Classify by Function: diagnostic versus coordination

A number of MDCCs have been established for the purpose of discussing and confirming the medical management approach relating directly to the disease and its immediate impact to the patient. MDCCs which have a strong emphasis on medical decision-making often require significant resources in terms of professional time (e.g. Oncology, Head and Neck, Breast Cancer, General Surgery). These MDCCs often have professional specialist attendants which come from not only their own department, but also members from other departments (e.g. radiology, pathology, general surgeons, Ear Nose and Throat surgeons).

A number of MDCCs are established purely for the purpose of planning and coordination of team activities in the delivery of patient care, and in which the medical treatment is of lesser focus of the MDCC (e.g. referral intake meeting, Pre-Outpatient Clinic meeting, pre-admission planning meeting). The purpose of these meetings were specifically to inform the team of the patient's background information and to coordinate the delivery of the care across team members.

Further to this, some MDCCs are established specifically to make efficient the running of the Outpatient Clinic (e.g. MDCCs for refugee paediatric unit, or paediatric endocrine) or Inpatient Services (e.g. complex birth pre-admission MDCC). The discussions are focussed on coordinating team members' actions and tasks to ensure the smooth running of the clinic or the patient's admitted clinical episode.

### Classify by Encounter Type

Encounter types have been discussed by various stakeholders to be an important classification feature for consideration. Some of the purposes of MDCCs observed were to reduce the rate of patient admission, improve the throughput of the outpatient clinic, or to improve the health outcome of an inpatient episode of care (e.g. pre-admission planning for complex births due for admission the following week).

### Additional data requirements

The introduction of separate classifications for MDCCs should only be considered if there is a material cost difference between the different categories. Due to the low sample size of MDCCs in this study, it is not considered sufficiently robust to investigate or construct cost estimates of MDCCs, classified according to the categories described above. Augmenting the current sample of MDCC would assist in developing cost estimates, by the classifications described above.

## 4.5 Key characteristics of MDCCs

Table 4-6 provides the summary characteristics of MDCCs from the clinical services which were engaged at the chosen health sites.

The characteristics of MDCCs varied across the examples that were encountered during consultations with health sites. The variation in objective characteristics, such as the mean length of an MDCC and the number of staff that would attend, mirrored the variation in participants' understanding of the concept of an MDCC. The underlying variation is discussed in the paragraphs that follow the table.

Table 4-6: Summary characteristics of MDCCs at select sites

State	Mean length of MDCC (mins)	Mean length of discussion / patient (mins)	Patients that are non-admitted (%)	Mean number of staff attending			MDCC sample size
				Medical clinicians	Nursing	Allied health	
<b>NSW</b>	53	7.2	71%	3.4	1.2	1.6	12
<b>Vic</b>	45	4.1	32%	9.7	1.0	0.3	12
<b>Qld</b>	65	7.4	90%	5.6	1.8	2.3	10

State	Mean length of MDCC (mins)	Mean length of discussion / patient (mins)	Patients that are non-admitted (%)	Mean number of staff attending			MDCC sample size
				Medical clinicians	Nursing	Allied health	
<b>WA</b>	80	6.9	100%	3.7	1.3	2.7	3
<b>SA</b>	50	8.3	73%	3.4	0.1	4.4	3
<b>NT</b>	60	3.4	100%	5.0	1.0	1.0	1
<b>All</b>	<b>55</b>	<b>6.0</b>	<b>67%</b>	<b>5.8</b>	<b>1.2</b>	<b>1.3</b>	<b>41</b>

Source: KPMG (2016)

#### 4.5.1 Victoria

Victoria tended to have a higher number of medical clinicians present at MDCCs, however, this also included a number of Registrars and JMOs. This was driven by the characteristics of the MDCCs in the Victorian sample, which were nearly all cancer MDCCs. Cancer MDCCs, across all jurisdictions, tended to be more mature and have a higher proportion of medical clinician participants, with fewer allied health and nursing staff. Despite this, the medical clinicians present at these meetings were from a variety of subspecialties, with the most common representatives from the diagnostic specialities of radiology, pathology and nuclear medicine. Victoria also tended to have more MDCCs that serviced both inpatients and outpatients.

The data for Victoria was largely gathered through information provided from the North Eastern Melbourne Integrated Cancer Service (NEMICS), which has been systematically collecting data on MDCCs. It is based on an analysis of around 400 MDCCs across 11 tumour streams, from a 12-month period. Consequently, the data presented for Victoria can be considered to be the most robust, albeit heavily skewed towards cancer care.

#### 4.5.2 New South Wales and Queensland

The consultations in New South Wales and Queensland were with a more diverse sample of clinical services. This accounts for the higher number of nursing and allied health staff present. Subacute (such as rehabilitation services) and chronic disease (such as diabetes) services tended to have proportionately more allied health and nursing staff attending MDCCs. There was a trend for services with exposure to clients over an extended period of time to have more developed MDCCs.

##### *Box 4-3: Case Study: Huntington's Service at Westmead Hospital*

The Huntington's service at Westmead Hospital has been running an MDCC in some form since 1996. It was one of the more mature MDCCs encountered, reflected by the existence of a formal terms of reference for the MDCC.

Huntington's Disease is an inherited disorder that results in the death of brain cells. Symptoms generally appear midlife, and a patient's relationship with a treating team can stretch over decades.

The MDCC has a comprehensive multidisciplinary approach, with two medical specialities, six allied health specialities and nursing staff represented at the meeting. Cases are only brought to the meeting if the discussion involves three disciplines. Each patient has a case manager who presents during the meeting. The case manager typically spends 15-20 minutes prior to the meeting preparing for each patient, and spends around 5 minutes following the meeting with follow-up activities. While the mean time spent discussing a patient was 4-5 minutes, the service estimated that around a quarter of patients were discussed for over 15 minutes. These discussions were billed to a relevant item number in the Medicare Benefits Schedule.

The discussion is clinically driven but also involves case coordination. The service uses an excel sheet to record data, including the names of the participants, their designations, names of participants, start and end time of the discussion, and the clinical or case coordination outcomes as they impact the patient.

Source: KPMG 2016

### 4.5.3 South Australia, Northern Territory and Western Australia

The consultations conducted in South Australia and the Northern Territory were with regional health sites, and should be treated with caution due to the low number of clinical areas consulted. For instance South Australia is significantly below the mean number of patients discussed per MDCC, while the Northern Territory is significantly higher. This is reflected in the Northern Territory’s labour cost per MDCC. MDCCs in South Australia tended to have a lower patient throughput.

The MDCCs in South Australia and Western Australia had more allied health and nursing staff combined, relative to the number of medical staff. This was in contrast to the MDCCs in other states. This idiosyncrasy reflected the services that were included in those states’ samples, which tended to be subacute.

## 4.6 Costing of MDCC events

This study derived an estimate of the costs of MDCC events largely using qualitative processes, namely interviews of coordinators.

The direct labour costs associated with MDCCs identified in the study were calculated to develop indicative estimates of the labour costs of an MDCC event.

The key cost drivers of an MDCC are the labour inputs which is a function of the following:

- time taken for the MDCC event;
- amount of time spent in any ancillary activities associated with the MDCC event;
- number of participants attending the event and/or participating in any ancillary activities; and
- respective pay grades of each participant<sup>12</sup>.

Table 4-7 presents the results of the labour costing of MDCC events. The costing is split into two categories:

1. the mean labour cost of an MDCC per patient estimates the cost of the clinicians present during an MDCC event; and
2. the mean labour cost of ancillary work associated an MDCC event per patient, estimates the costs of any preparatory and/or post-event work.

The costs are presented separately as the first category is more robust than the second, which should be treated cautiously. It often involved individuals estimating the effort of other individuals, which they did not necessarily observe. In contrast, the estimates for the mean labour cost of an MDCC per patient were based on individuals’ recollection of attendees at meetings that they also attended.

Table 4-7: Costing of MDCCs at select sites

State	Mean length of discussion / patient (mins)	Mean number of staff attending				Mean labour cost of MDCC per patient	Mean labour cost of ancillary work associated with MDCC per patient	Mean hourly labour cost of an MDCC event	MDCC sample size
		Medical clinicians	Nursing staff	Allied health	Admin staff				
<b>NSW</b>	7.2	3.2	1.0	1.6	0.1	\$57	\$37	\$470	12

<sup>12</sup> Salaries have been obtained from each jurisdiction’s health awards. For medical clinicians and nursing staff, the mid-point of the salary band for that individual’s title (e.g. Staff Specialist or Clinical Nurse Consultant) has been used. For allied health clinicians, the mid-point of the salary band for an individual with four to six years of experience, has been used. An on-cost loading of 30%, to account for non-wage costs of employment (e.g. superannuation, payroll tax, workers compensation etc.), has been applied to those salaries.

State	Mean length of discussion / patient (mins)	Mean number of staff attending				Mean labour cost of MDCC per patient	Mean labour cost of ancillary work associated with MDCC per patient	Mean hourly labour cost of an MDCC event	MDCC sample size
		Medical clinicians	Nursing staff	Allied health	Admin staff				
<b>Vic</b>	4.1	9.7	1.0	0.3	0.6	\$80	N/A	\$1,159	12
<b>Qld</b>	8.8	5.6	1.8	2.3	0.4	\$115	\$75	\$791	10
<b>WA</b>	6.9	3.7	1.3	2.7	0.3	\$73	\$8	\$636	3
<b>SA</b>	8.3	3.4	0.1	4.4	0.6	\$86	\$52	\$616	3
<b>NT</b>	3.4	5.0	1.0	1.0	1.0	\$38	\$19	\$662	1
<b>All</b>	<b>6.0</b>	<b>5.8</b>	<b>1.2</b>	<b>1.3</b>	<b>0.5</b>	<b>\$92</b>	<b>\$30</b>	<b>\$915</b>	<b>41</b>

<sup>NA</sup> Victoria was excluded from this analysis as 10 MDCCs in the sample were from NEMICS. Data on ancillary work associated with for this was not gathered. Therefore this was not calculated to avoid providing a misleading figure.

Source: KPMG 2016

The costing shows that the mean direct labour cost per patient discussed at an MDCC ranges between \$57 and \$115 (excluding the Northern Territory, where there was a sample size of one). This relative homogeneity masks some variation between services within jurisdictions. The 'mean hourly labour cost of an MDCC event' shows the mean labour cost of running an hour-long MDCC event in a particular jurisdiction. This shows significant variation in hourly labour cost between jurisdictions, which is driven by the mean length of discussion per patient, the staffing profile of the attendees and labour costs in each jurisdiction.

Table 4-8 details the mean hourly labour cost of an MDCC event. It also provides the weighted hourly labour cost by staff category and jurisdiction. The weightings account for the various roles within each category, for instance, the medical staff category includes Staff Specialists, Registrars and Junior Medical Officers. The weighting reflects the relative proportion of their attendance at MDCC events in the sample. Applying the mean number of staff attending MDCC events (from Table 4-7) to the mean weighted hourly cost per staff member will yield the mean hourly labour cost of an MDCC event.

Table 4-8: Mean hourly labour cost of MDCC, by staffing category, by jurisdiction

State	Mean hourly labour cost of MDCC	Mean weighted hourly cost per staff member, by staffing category			
		Medical staff	Nursing staff	Allied health	Admin staff
<b>NSW</b>	\$469.6	\$103.8	\$63.6	\$42.8	\$29.6
<b>Vic</b>	\$1,159.1	\$110.2	\$58.7	\$43.8	\$37.3
<b>Qld</b>	\$791.0	\$99.6	\$62.0	\$47.3	\$33.9
<b>WA</b>	\$635.6	\$118.4	\$65.6	\$38.7	\$30.6
<b>SA</b>	\$616.0	\$119.0	\$43.2	\$42.8	\$35.0
<b>NT</b>	\$661.8	\$108.9	\$44.4	\$43.0	\$29.9

Source: KPMG 2016

#### 4.6.1 Participant profile

The participant profile of MDCCs was often a result of the clinical profile of the service, for example, cancer services were dominated by medical clinicians. However, mental health and geriatrics services had proportionally more allied health clinicians. A child health MDCC in South Australia did not have any medical clinicians present. The costing of MDCCs in Victoria can be used as a proxy for costing of cancer MDCCs, as 10 of the 12 in the sample are for cancer MDCCs. The cost of an

MDCC per patient in Victoria is not radically different from the NSW profile, and is similar to the Queensland costing.

Some MDCCs also have multiple individuals representing the same clinical speciality at the meeting. For instance, the Renal MDCC in the Northern Territory had four Nephrologists that would participate, in addition to a nurse, Aboriginal and Torres Strait Islander Health Worker and an administrative officer. The ostensible purpose of this was that different Nephrologists were responsible for different patients. However, it appears that at least some of the meeting is given to an intra-disciplinary discussion of patients – essentially a peer review – as opposed to a multidisciplinary discussion. This appeared to occur in several MDCCs. This presents the question of: to what extent should these meetings be considered multidisciplinary, and recognised as such, versus an ordinary peer review process.

#### **4.6.2 Length of discussion and limitations**

The mean time taken to discuss individual patients varied from 4.1 minutes in Victoria to 8.3 minutes in South Australia. The number of patients discussed during each MDCC, and consequently the amount of time spent discussing each patient, can be a deceptive figure. The large range in time spent per patient – three to thirty minutes – can be partly explained by different services' approaches to MDCCs, which is discussed earlier in this report.

It emerged during consultations that some services tended to have a more rigorous screening process for deciding which patients were eligible for an MDCC discussion. These services often tended to have more time spent discussing individual patients, who tended to require more complex or a genuine multidisciplinary approach to care. Other services would not necessarily have a rigorous screening process. For these services, patients would be discussed during MDCCs. However, less complex patients would be dispensed with relatively quickly, while more time was spent on other patients.

This inevitably makes the conduct of the MDCC appear more efficient in this analysis. However, without more granular analysis of the conduct of MDCCs, potentially including direct observations, this would not be possible to investigate further.

The mean labour cost of MDCC pre- and post-work examines the time spent on activities before and after the MDCC, such as pulling files or writing up notes.

Due to the nature of the data collected from NEMICS (participants in each MDCC were not interviewed), information on the time spent preparing for an MDCC and following up on actions following an MDCC – particularly by clinicians – was not collected. Consequently, that cost information is not presented. However, it is known that 1.5 FTE staff supports all NEMICS's MDCCs (though this only accounts for that individual's time and excludes the time of clinicians).

#### **4.6.3 Other costs drivers of MDCC**

In addition to labour costs, costs that were incurred by services to run an MDCC included:

- Communication services, such as videoconferencing and teleconferencing;
- Laboratory and information technology equipment, for the projection of slides and notes;
- General overhead costs (e.g. rent); and
- Refreshment costs (e.g. some longer MDCCs provided lunch for participants).

These additional costs were not collected, however, an overhead component, covering these cost categories could be allocated to the MDCC event.

#### **4.6.4 Summary**

Additional data collection is recommended in order to stratify the sample according to the potential classification to see if there are material cost differences between classifications. While the cost variations of MDCCs in different jurisdictions are not large, the mean estimates presented mask the large ranges within the sample.

**Recommendation 3: Conduct a study to directly cost MDCC activities**

This study derived an estimate of MDCCs costs from qualitative processes. A study collecting event level cost driver data would need to be considered to obtain a more reliable estimate of MDCCs' costs.

Such a study would also enable an assessment of whether or not multiple MDCC classes are warranted.

## 5 Summary of recommendations

This study provided a detailed understanding of the various characteristics of MDCCs and the different ways in which MDCCs are conducted across the different states and territories.

In order to progress the development of a robust mechanism to count, cost and classify MDCCs, this report has identified three recommendations for IHPA to consider.

### **Recommendation 1: Refine the current MDCC definition**

Consider the suggested revisions to the current definition of the MDCC and impart the necessary refinements to improve the identification of an MDCC. Once complete, adopt the newly revised MDCC description as the single national definition.

Based on the assessment of the operation of MDCCs across the study sites and the analysis contained above, a proposed revised definition of an MDCC event is contained in Box 5-1. The proposed revised definition does not remove any elements of the existing definition. The proposed additions are marked in bold and red.



Box 5-1: Proposed reviewed definition of an MDCC event

The draft definition of a non-admitted MDCC where the patient is not present includes:

1. Non-admitted MDCCs where the patient is not present are:

- e) a meeting or discussion held **concurrently**<sup>13</sup> between health care providers
- f) arranged in advance
- g) to discuss a patient in detail and
- h) to coordinate care.

2. Non-admitted MDCCs ensure that a patient's multidisciplinary care needs are met through a planned and coordinated approach.

3. A non-admitted MDCC must involve three or more health care providers **who have direct care responsibilities for the patient discussed:**

- The health care providers may be of the same profession (medical, nursing, midwifery or allied health).
- Each participating health care provider must each have a different speciality so that the care provided by each provider is unique.

4. For each non-admitted patient discussed - a multidisciplinary management plan must be in place or developed at the MDCC, and one participating health care provider must record the following items in each patient's clinical record:

- e) **the name of the MDCC event**, the date **of the event**, and the start and end times (or duration) at which each patient was discussed during the case conference
- f) the names of the participants involved in the discussion relating to the patient and their designations/clinical backgrounds
- g) a description of the non-admitted patient's problems, goals and strategies relevant to that MDCC, and
- h) a summary of the outcomes of the MDCC.

(Note: c. and d. may be completed through documentation (or revision) of a multidisciplinary care plan completed after each non-admitted MDCC where the patient is not present.)

Source: KPMG 2016

### **Recommendation 2: Revise the existing Counting rules**

Consider the suggested counting rules for MDCCs to support the proposed MDCC definition. A proposed revision can be found in Section 4.2.5.

### **Recommendation 3: Conduct a comprehensive MDCC cost data collection exercise**

Once the definition of MDCCs are confirmed and the counting rules established, consider the formal implementation of an MDCC data collection and reporting exercise at selected service provider sites.

The findings of the exercise should provide a foundation to more reliably estimate the cost of MDCCs and provide the evidence-based details to inform the design of a robust classification system.

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<sup>13</sup> Applying the term "concurrent" assumes that staggered conversations between the patient's care clinicians or that email conversations through a group of clinicians are not generally considered as MDCC events.

## Appendix A List of services consulted and MDCCs identified

The table below details the MDCC events that were encountered during consultations with health sites. The following notation has been used:

- Y – Yes
- N – No
- P – Partially
- na – data not collected

Table 5-1: List of MDCCs events

#	State	Site	MDCC	Interviewees	Date, start/end time collected?	Participant names and designations collected?	Problems, goals, strategies and outcomes recorded?	Patient care plan updated/created?	In costing database?	Brief description of MDCC
1	Vic	Austin Hospital	NEMICS – Breast cancer	MDCC Coordinator	P	Y	Y	Y	Yes	Pre-scheduled MDCC; full time assistant to prepare weekly meeting; Patient case selection based on cases which are destined for the following week's surgery inpatient admission list; Purpose is to agree medical and surgical treatment approach based on diagnostic findings.
2	Vic	Austin Hospital	NEMICS – Colorectal cancer	MBS Billing Project Manager	na	na	na	na	Yes	An overview of all cancer MDCCs was obtained, however, the individual characteristics were not discussed.
3	Vic	Austin Hospital	NEMICS – Head and Neck cancer	MBS Billing Project Manager	na	na	na	na	Yes	An overview of all cancer MDCCs was obtained, however, the individual characteristics were not discussed.
4	Vic	Austin Hospital	NEMICS – Hepatoma, Hepato-pancreato-biliary cancer	MBS Billing Project Manager	na	na	na	na	Yes	An overview of all cancer MDCCs was obtained, however, the individual characteristics were not discussed.
5	Vic	Austin Hospital	NEMICS – Lung cancer	MBS Billing Project Manager	na	na	na	na	Yes	An overview of all cancer MDCCs was obtained, however, the individual characteristics were not discussed.

#	State	Site	MDCC	Interviewees	Date, start/end, time collected?	Participant names and designations collected?	Problems, goals, strategies and outcomes recorded?	Patient care plan updated/created?	In costing database?	Brief description of MDCC
6	Vic	Austin Hospital	NEMICS – Lymphoma cancer	MBS Billing Project Manager	na	na	na	na	Yes	An overview of all cancer MDCCs was obtained, however, the individual characteristics were not discussed.
7	Vic	Austin Hospital	NEMICS – Upper Gastrointestinal cancer	MBS Billing Project Manager	na	na	na	na	Yes	An overview of all cancer MDCCs was obtained, however, the individual characteristics were not discussed.
8	Vic	Austin Hospital	NEMICS –Urology cancer	MBS Billing Project Manager	na	na	na	na	Yes	An overview of all cancer MDCCs was obtained, however, the individual characteristics were not discussed.
9	Vic	Austin Hospital	NEMICS – Melanoma cancer	MBS Billing Project Manager	na	na	na	na	Yes	An overview of all cancer MDCCs was obtained, however, the individual characteristics were not discussed.
10	Vic	Austin Hospital	NEMICS – Haematology & Myeloma cancer	MBS Billing Project Manager	na	na	na	na	No – Only two clinical specialities attended meeting	An overview of all cancer MDCCs was obtained, however, the individual characteristics were not discussed.
11	Vic	Austin Hospital	NEMICS – CNS Pathology cancer	MBS Billing Project Manager	na	na	na	na	No – Data on attendees not available	An overview of all cancer MDCCs was obtained, however, the individual characteristics were not discussed.
12	Vic	Austin Hospital	Pain service (1) – weekly outpatient MDCC	Director, Pain Service	P	P	Y	Y	Yes	A weekly outpatient meeting is intended to coordinate care between the different disciplines of pain service, and to assist in the formulation or updating of a patient management plan. The listing of patients is predetermined and anyone in the team can refer a patient to the meeting. The purpose of the MDCC is to provide a MDT approach to clinical decision making, discussions and education.

#	State	Site	MDCC	Interviewees	Date, start/end, time collected?	Participant names and designations collected?	Problems, goals, strategies and outcomes recorded?	Patient care plan updated/created?	In costing database?	Brief description of MDCC
13	Vic	Austin Hospital	Pain service (2) – post clinic MDCC	Director, Pain Service	P	P	Y	Y	Yes	A meeting is held after a (semi regular) weekly outpatient clinic amongst participating clinicians to discuss assessments of the patients. A patient plan is formulated, with the outcomes being written up in a letter. This is coordinated by the medical clinician with input from the allied health clinicians.
14	NT	Top End Health Service	Renal Service	Renal Service Coordinator	P	P	N	P	Yes	A monthly meeting, largely composed of medical clinicians, is held. It considers the new intake of patients and appears to be used for information sharing. The clinicians cover different geographies and the meeting assists in getting a peer review.
15	SA	Whyalla Hospital	Discharge planning	Out of hospital strategies, Team Leader	P	P	N	Y	No – Service is for inpatients	A monthly discharge planning meeting of inpatients is conducted, as an adjunct to a team meeting. Complex patients are discussed, such as individual with repeat presentations at ED within the past month. The meeting is more for identifying clients for referral rather than creating care plans.
16	SA	Whyalla Hospital	Rehabilitation	Rehabilitation Team Leader; Speech Pathologist; Physiotherapist; Physiotherapist	N	Y	Y	Y	Yes	A fortnightly meeting that considers both inpatients and outpatients. Notes are taken on each patient discussed, including a summary of the actions emanating from the MDCC. The Consultant and Registrar participate via videoconference every second meeting, as they travel between sites.
17	SA	Whyalla Hospital	Child Health (1) – Joint Assessment Committee	Team Leader	P	Y	N	Y	Yes	Monthly MDCC that happens with allied health clinicians. Individual patient summaries are written outlining the actions from the meeting that go into the case file.
18	SA	Whyalla Hospital	Child Health (1) – Child Development Unit	Team Leader	P	Y	Y	Y	No – Patient and/or	Monthly MDCCs for most client cases involving medical, nursing and allied health clinicians. In-depth clinicians and case coordinator discussion, with writing of a lengthy report following discussion. Patient discussions are booked for the year, as patients need to attend.

#	State	Site	MDCC	Interviewees	Date, start/end, time collected?	Participant names and designations collected?	Problems, goals, strategies and outcomes recorded?	Patient care plan updated/created?	In costing database?	Brief description of MDCC
									carer is present	
19	SA	Whyalla Hospital	Cancer	Cancer MDM Coordinator	N	Y	P	P	Yes	Regular, fortnightly MDCC that covers regional Whyalla and Port Lincoln facilities, with some clinicians participating via video conference, including from Adelaide; review of new cases and known patients. Purpose is to coordinate treatment pathways, coordinate team, sharing of information and management of referrals.
20	SA	Whyalla Hospital	Aged and community care	Aged and Community Care Team Leader	P	N	N	N	No – More information sharing – no clinical goals reached	A daily meeting focused on discussing the new patient intake. The meeting is used to triage incoming patients and create referrals for allied health. A care plan is not created, however a summary of the patient's goals are made.
21	NSW	Westmead Hospital	Storr Liver Unit – Liver Cancer	Director, Storr Liver Centre; NUM, Gastroenterology	P	Y	Y	Y	Yes	A weekly MDCC and anyone can refer a patient to the nurse that coordinates the list. Purpose is to discuss any hepatic cases with confirmed and suspected liver oncology, review diagnosis and plan for medical treatment; MDT input to affirm disease management; output documented in a separate database.
22	NSW	Westmead Hospital	Women's and Children's Health	Clinical Midwifery Consultant	N	N	Y	Y	Yes	Weekly inpatient admission planning MDCC, to assist in the coordination and clinical planning to manage high risk pregnancies who are due for admission in the following week. The meeting also reviews the progress of pending births using a schedule of registered patients.
23	NSW	Westmead Hospital	Geriatrics – DOM care	Consultant, Geriatrics; NUM; Physiotherapist	P	Y	Y	Y	Yes	Domiciliary care meeting for at risk patients (e.g. home situation may not be ideal), so referred to the MDCC (from internal clinicians and GPs) so that there is follow-up on the patient. Intended to review care needs, reduce readmissions, and coordinating care delivery.

#	State	Site	MDCC	Interviewees	Date, start/end, time collected?	Participant names and designations collected?	Problems, goals, strategies and outcomes recorded?	Patient care plan updated/created?	In costing database?	Brief description of MDCC
24	NSW	Westmead Hospital	Geriatrics – CBRE	Consultant, Geriatrics; NUM; Physiotherapist	P	Y	N	N	Yes	Community based rehabilitation meeting for the elderly MDCC, is a weekly meeting that is more or a clinical coordination meeting to ensure the right services are being provided to patients.
25	NSW	Westmead Hospital	Huntington's Disease	Director, Huntington's Disease Service; Consultant Neurologist; Social Worker; CNS	P	Y	Y	Y	Yes	A weekly MDCC, with a terms of reference, which has been ongoing since 1996. A case manager presents at the meeting which is used for both clinical decision making and care coordination. Patient have been seen previously in outpatients, or are known to the service. The agenda of the meeting is to discuss progress or raise any concerns of patients, and to discuss any medical issues arising. Notes are kept of the outcomes of the meeting.
26	NSW	Westmead Hospital	Renal Service (1) – Morbidity and Mortality meeting	Clinical Director	N	N	N	N	Yes	Weekly medically driven discussion of inpatients and outpatients that died in the past week or that had adverse events. There's a formal agenda, but a list of patients for discussion is not circulated beforehand (except deaths). Focus is on analysing cause of Mortality or Morbidity. The meeting is not designed for clinical care planning. The event is recorded for audit purposes.
27	NSW	Westmead Hospital	Renal Service (2) – Renal Service MDCC meeting	Clinical Director	N	N	N	N	Yes	Weekly pre-scheduled meeting; discuss a range of Outpatients, Inpatients, and patients who have died during the same period. The purpose of the meeting is to discuss selected patients which needs MDT input to medical management and care coordination. 30% are outpatients, with the remaining being in-patients. Clinical records are updated with actions and tasks after the meeting.
28	NSW	Westmead Hospital	Renal Service (3) – Transplant case conference	Clinical Director	P	Y	Y	Y	Yes	A case conference prior to and/or following transplants. This is used for inpatient admission planning and for follow-ups of patients experiencing complications. There is relatively sparse recording of care action plans. Provides a level of information sharing across the team members.

#	State	Site	MDCC	Interviewees	Date, start/end, time collected?	Participant names and designations collected?	Problems, goals, strategies and outcomes recorded?	Patient care plan updated/created?	In costing database?	Brief description of MDCC
29	NSW	Westmead Hospital	Complex endocrine - Thyroid meeting	Clinical Director; Consultant; Consultant; NUM;	P	Y	Y	Y	Yes	A monthly MDCC is held for complex endocrine patients with Thyroid/Parathyroid conditions. The purpose of the MDCC is to have a team-based approach to medical treatment decision making and care planning.
30	NSW	Westmead Hospital	Respiratory service – COPD service	Respiratory Physician; Respiratory Physician; CNC	P	P	Y	Y	Yes	Following an outpatient clinic, have an MDCC with participating clinicians to discuss the patients they have seen. This meeting identifies the issues, goals and documents it in the clinical record (electronic health record); a letter is typed and sent to the GP. MDCC is for medical decision making and care planning for patients.
31	NSW	Westmead Hospital	Brain Injury Rehabilitation Unit (1) – Community rehab MDCC	Manager of Community Integration Program; Rehabilitation Medicine Physician	P	Y	Y	Y	Yes	A weekly meeting that is more focused on information sharing, but is an opportunity for clinicians to bring up cases that they think are important for the team to discuss. The objective is to identify early at-risk patients and avoid/prevent hospital admission.
32	NSW	Westmead Hospital	Brain Injury Rehabilitation Unit (2) – Complex patient discussion	Manager of Community Integration Program; Rehabilitation Medicine Physician	P	Y	Y	Y	Yes	For particularly complex patients, a subgroup of therapists will convene for an MDCC. The meetings are held as needed, with file entries made into the clinical record. This meeting is often in preparation for carer training.
33	Qld	Metro North: PCH	General surgery	Clinical Director, General Surgery	P	Y	Y	Y	Yes	Weekly or fortnightly MDCC, based on volume, which is used to discuss cancer cases. Every malignancy comes through the MDCC initially, and it also receives follow-ups from previous investigations. The purpose of the MDCC is to provide an MDT approach to medical decision making and care planning. Outcomes of the meeting are documented as a series of actions and tasks for the patients.
34	Qld	Metro North: PCH	Mental Health (1) – Case conference (a)	Clinical Director, Mental Health; Team Leader; Consultant Psychiatrist	P	Y	Y	Y	Yes	A legislatively mandated review (90-days cycle) of a set of patients is conducted, with an MDCC used to present the summary to participants. It is part of a compliance requirement under Mental Health Services. This includes reviewing outcomes measures, checking the robustness of the

#	State	Site	MDCC	Interviewees	Date, start/end, time collected?	Participant names and designations collected?	Problems, goals, strategies and outcomes recorded?	Patient care plan updated/created?	In costing database?	Brief description of MDCC
				Director, Service Improvement and Performance, PCH						diagnosis and reviewing any alerts in the system. A clinical or case coordination discussion can ensue, depending on the complexity of the cases being discussed. Listing of the patients for review is periodic and pre-determined based on the time-cycle.
35	Qld	Metro North: PCH	Mental Health (2) – Case conference (b)	Clinical Director, Mental Health; Team Leader; Consultant Psychiatrist  Director, Service Improvement and Performance, PCH	P	Y	Y	Y	Yes	A legislatively mandated review of a set of patients is conducted, with an MDCC used to present the summary to participants. This includes reviewing outcomes measures, checking the robustness of the diagnosis and reviewing any alerts in the system. A clinical or case coordination discussion can ensue, depending on the complexity of the cases being discussed.
36	Qld	Metro North: PCH	Mental Health (3) – Court assessment (b)	Clinical Director, Mental Health; Team Leader; Consultant Psychiatrist  Director, Service Improvement and Performance, PCH	P	Y	Y	Y	Yes	A court mandated assessment of selected patients who are on mental-health restricted medications are conducted in a weekly MDCC. The review examines patient notes and progress, multidisciplinary, and have outputs documented. The listing of patients are planned and pre-determined based on those who are currently on restricted medications.
37	Qld	Metro South: PAH	Head and Neck service (1) – Main MDCC	Head and Neck MDCC Coordinator	P	P	Y	Y	Yes	A weekly MDCC meeting; coordinates state-wide referrals of Head and Neck cases; purpose is for MDT to review both new referrals and post-operation cases to determine the next stage management plan; mix of medical treatment decisions, team coordination and patient care planning; all output are documented in the clinical notes (electronic). The session is not separately documented.
38	Qld	Metro South: PAH	Head and Neck (2) – Complex limb MDCC	Complex Limb coordinator; Monthly complex limb MDCCs	P	P	Y	Y	Yes	A monthly MDCC that occurs following an outpatient clinic; coordinated by surgical fellows; the clinic is targeted for patients with complex limb issues



#	State	Site	MDCC	Interviewees	Date, start/end, time collected?	Participant names and designations collected?	Problems, goals, strategies and outcomes recorded?	Patient care plan updated/created?	In costing database?	Brief description of MDCC
										who require MDT discussion post clinic to affirm treatment plan; output documentation completed in notes.
39	Qld	Metro South: PAH	GARU (1) – Geriatrics MDCC	CNC, Geriatrics and Rehabilitation Unit; NUM, Day Hospital	P	P	Y	Y	Yes	A weekly MDCC for patients, following the outpatient clinic. Patients are also automatically reviewed every six weeks, with their progress, goals and issues that have arisen being discussed. The meeting is used for clinical decision making and case coordination, with actions recorded in their notes.
40	Qld	Metro South: PAH	GARU (2) – Brain Injury Rehabilitation Unit MDCC	CNC, Geriatrics and Rehabilitation Unit; NUM, Day Hospital	P	P	Y	Y	Yes	A weekly MDCC that discusses new outpatients and automatically reviews outpatients after 4-6 weeks. The patient's clinical records, including the clinical or coordination actions, are updated as the meeting progressed.
41	Qld	Metro South: PAH	GARU (3) – Memory case conference	CNC, Geriatrics and Rehabilitation Unit; NUM, Day Hospital	Y	Y	Y	Y	Yes	A weekly MDCC that is used to discuss outpatients with allied health and nursing, after they have been seen by the medical clinicians in the outpatient clinic. These patients are reviewed every six months, with actions recorded in their care plan.
42	Qld	Metro South: PAH	GARU (4) – Falls case conference	CNC, Geriatrics and Rehabilitation Unit; NUM, Day Hospital	Y	Y	Y	Y	Yes	An ad hoc MDCC is conducted with medical, nursing and allied health staff. The purpose of the MDCC is often to handover care of the patient to the physiotherapist from the medical clinician.
43	WA	PMH	Child protection – High risk patient MDCC	Child Protection Unit	na	na	na	na	No – significantly alters costing mean	An important meeting which is set up on an ad-hoc basis when a critical and complex child protection issue has arisen and requires MDT review; only one patient discussed with each meeting going for 2-3 hours; involves hospital, social care and community members; often takes weeks to coordinate. Notes are formally recorded, and circulated to all participants post meeting. Not all notes are recorded in the clinical record due to sensitivity issues.

#	State	Site	MDCC	Interviewees	Date, start/end, time collected?	Participant names and designations collected?	Problems, goals, strategies and outcomes recorded?	Patient care plan updated/created?	In costing database?	Brief description of MDCC
44	WA	PMH	Endocrinology (1) – CIU MDCC	Paediatric Endocrinologist Consultants	na	na	na	na	No – attendee list not available	Weekly MDCC; Patient selection is based on all endocrine results from the previous week; meeting to review results and arrange for next stage testing; MDT input required to confirm next stage test requirements; output listed as actions and tasks in clinical notes.
45	WA	PMH	Endocrinology (2) – Pre and post clinic MDCC	Paediatric Endocrinologist Consultants	P	Y	Y	Y	Yes	This MDCC occurs for all Outpatient Clinics; purpose is to prepare and coordinate a team approach to manage all visiting outpatients for the session. Generally pre-session is for team planning and post-session is for team review and consensus on management plan. It expedites a team decision and streamlines patient ongoing care. Documentation in the form of clinic letter and listing of actions and tasks in clinical notes.
46	WA	PMH	Paediatric	Paediatric Rehabilitation Manager	na	na	na	na	Yes	Prescheduled meeting; reviews progress and needs of patients requiring ongoing rehabilitation from acquired brain injuries; MDT review and input required; session prepared with formal agendas and patient listing; formally documented on a “yellow sticker” into the clinical notes.
47	WA	PMH	Refugee Child Health – CLASP patient / family intake meeting	Consultants	P	P	Y	Y	Yes	Prescheduled; the MDCC occurs prior to the start of the clinic, and prepares the review of the listing of patients who are due to attend the Outpatient clinic; preparation occurs prior to the meeting to ensure that information about the cases are sufficient for discussion and review. The purpose is to agree care approach and to coordinate care and planning for the patient; has a formal “yellow” form with structured information collected in a consistent format and inserted into the patient clinical notes.

## Appendix B Jurisdictional briefing note

### Briefing note: study to count, cost and classify non-admitted MDCCs where the patient is not present

#### Background

The Independent Hospital Pricing Authority (IHPA) has engaged KPMG to liaise with jurisdictions and health service sites to examine how to count, cost and classify multidisciplinary case conferences (MDCCs), also known as multidisciplinary team meetings (MDTs), for non-admitted patients, where patients are not present.

KPMG will be undertaking a series of consultations with jurisdictions and nominated health services. The purpose of consulting with each of these groups is outlined in the table below.

Purpose of consultation with jurisdictions	Purpose of consultation with sites
<ul style="list-style-type: none"><li>• Test the study design and approach</li><li>• Understand the data collection requirements of hospitals in its jurisdictions</li><li>• Understand the views of jurisdictions in classifying and pricing non-admitted MDCCs where the patient is not present</li></ul>	<ul style="list-style-type: none"><li>• Understand how non-admitted minimum data sets are collected across clinics where MDCCs are likely to occur</li><li>• Understand what is the span of clinics in which MDCCs mainly occur</li><li>• Understand why they occur</li><li>• Understand what are the cost drivers</li></ul>


#### Timeframe and high level approach

Consultations with jurisdictions are scheduled to occur over April and May 2016. The consultations with sites is scheduled to occur over June and July. The consultations with sites will occur on-site. The engagement approach adopted will vary according to the circumstances of each site. A selection of activities that may take place include:

- interview with nominated contact;
- interviews with personnel responsible for collecting relevant data;
- collection of deidentified MDCCs cost and activity data;
- interviews with Multidisciplinary Case Coordinators;
- interview with MDCC participants (clinicians); and
- direct observation of MDCCs.

#### Rationale for project

Under the 2011 National Health Reform Agreement, the Council of Australian Governments unanimously agreed to the establishment of activity based funding (ABF) as the primary funding methodology for public hospitals throughout Australia. The aim of ABF is to improve the efficiency and transparency in the delivery of funding of Australian public hospital services.



To support its core role of determining the national efficient price for ABF of public hospital health care services, IHPA develops classification systems and associated data and coding standards to ensure that nationally consistent data is available for ABF purposes.

IHPA's Clinical Advisory Committee and Pricing Authority support the counting of MDCCs, noting that this work is a growing practice in non-admitted care settings.

The reporting of non-admitted MDCCs where the patient is not present will contribute to the ability to identify, count and price this growing practice.

**The approved definition for a non-admitted MDCC where the patient is not present includes:**

Non-admitted MDCCs where the patient is not present are a meeting or discussion held between health care providers, arranged in advance, to discuss a patient in detail and to coordinate care. Non-admitted MDCCs ensure that a patient's multidisciplinary care needs are met through a planned and coordinated approach.

A non-admitted MDCC must involve three or more health care providers. The health care providers may be of the same profession (medical, nursing, midwifery or allied health). However, they must each have a different speciality so that the care provided by each provider is unique.

For each non-admitted patient discussed, a multidisciplinary management plan must be in place or developed at the MDCC, and one participating health care provider must record the following items in each patient's medical record:

- a. the date of the case conference, and the start and end times at which each patient was discussed during the case conference
- b. the names of the participants involved in the discussion relating to the patient and their designations/clinical backgrounds
- c. a description of the non-admitted patient's problems, goals and strategies relevant to that MDCC, and
- d. a summary of the outcomes of the MDCC.

Note: c) and d) may be completed through documentation (or revision) of a multidisciplinary care plan completed after each non-admitted MDCC where the patient is not present.

## Appendix C Health site briefing note

### Briefing note for health sites: study to count, cost and classify non-admitted MDCCs where the patient is not present

#### Background

The Independent Hospital Pricing Authority (IHPA) has engaged KPMG to liaise with jurisdictions and health service sites to examine how to count, cost and classify multidisciplinary case conferences (MDCCs), also known as multidisciplinary team meetings (MDTs), for non-admitted patients, where patients are not present. KPMG will be undertaking consultations with jurisdictions and nominated health services.

#### Purpose of consultation with health sites

- Understand how non-admitted minimum data sets are collected across services where MDCCs are likely to occur
- Understand what is the span of clinics in which MDCCs mainly occur
- Understand why they occur
- Understand what are the cost drivers

#### Rationale for project

Under the 2011 National Health Reform Agreement, the Council of Australian Governments unanimously agreed to the establishment of activity based funding (ABF) as the primary funding methodology for public hospitals throughout Australia. The aim of ABF is to improve the efficiency and transparency in the delivery of funding of Australian public hospital services.

To support its core role of determining the national efficient price for ABF of public hospital health care services, IHPA develops classification systems and associated data and coding standards to ensure that nationally consistent data is available for ABF purposes.

IHPA's Clinical Advisory Committee and Pricing Authority support the counting of MDCCs, noting that this work is a growing practice in non-admitted care settings. The reporting of non-admitted MDCCs where the patient is not present will contribute to the ability to identify, count and price this growing practice.

#### IHPA's definition for a non-admitted MDCC where the patient is not present includes:

Non-admitted MDCCs where the patient is not present are a meeting or discussion held between health care providers, arranged in advance, to discuss a patient in detail and to coordinate care. Non-admitted MDCCs ensure that a patient's multidisciplinary care needs are met through a planned and coordinated approach.

A non-admitted MDCC must involve three or more health care providers. The health care providers may be of the same profession (medical, nursing, midwifery or allied health). However, they must each have a different speciality so that the care provided by each provider is unique.

For each non-admitted patient discussed, a multidisciplinary management plan must be in place or developed at the MDCC, and one participating health care provider must record the following items in each patient's medical record:

- a. the date of the case conference, and the start and end times at which each patient was discussed during the case conference

- b. the names of the participants involved in the discussion relating to the patient and their designations/clinical backgrounds
- c. a description of the non-admitted patient’s problems, goals and strategies relevant to that MDCC, and
- d. a summary of the outcomes of the MDCC.

Note: c) and d) may be completed through documentation (or revision) of a multidisciplinary care plan completed after each non-admitted MDCC where the patient is not present.

### Timeframe and high level approach

Consultations with health sites are scheduled to occur over **June and July 2016**. The consultations with sites will largely occur on-site. The engagement approach adopted will vary according to the number of MDCCs that occur at the health site. The approach has been designed to minimise the data collection burden imposed on health sites. A selection of activities that may take place include:

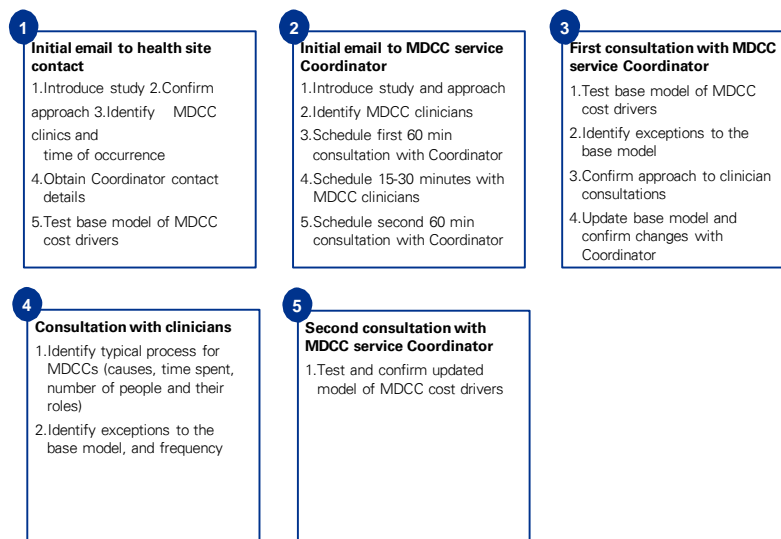
- interviews with nominated health site contact;
- collection of de-identified data on the processes associated with an MDCC;
- interviews with MDCC coordinators; and
- interviews with MDCC participants (clinicians).

[Figure 1](#) outlines the high level approach to engagement with health sites. [Figure 2](#) summarises the activities that will take place during each stage of the engagement process.

Figure 1: High level approach to engagement with health sites



Figure 2: Summary of activities during engagement with health sites



# Appendix D Jurisdictional consultation guide



## MDCC study: jurisdiction consultation guide

### **Purpose**

- Determine appropriate method for contacting health sites located in the jurisdiction, if relevant – either directly with sites or via an intermediary at the jurisdiction.
- Determine if confidentiality agreements need to be signed in order to interview health site staff, collect data and/or observe MDCCs.
- Understand how the conduct of MDCCs differs within each jurisdiction.
- Consider data requirements of counting, classifying and costing MDCCs.
- Test the study design and approach; understand the data collection requirements of hospitals in its jurisdiction; understand the views of jurisdictions in counting, classifying and pricing non-admitted MDCCs where the patient is not present.

### **Method**

90-minute group teleconference with jurisdictional representatives. The specific individuals will be nominated by the jurisdiction, and will include:

- a pricing policy representative
- an Activity Based Funding technical representative.
- data management and systems representatives (e.g. HIMs).

#### **The definition for a non-admitted MDCC where the patient is not present:**

Non-admitted MDCCs where the patient is not present are a meeting or discussion held between health care providers, arranged in advance, to discuss a patient in detail and to coordinate care. Non-admitted MDCCs ensure that a patient's multidisciplinary care needs are met through a planned and coordinated approach.

A non-admitted MDCC must involve three or more health care providers. The health care providers may be of the same profession (medical, nursing, midwifery or allied health). However, they must each have a different speciality so that the care provided by each provider is unique.

For each non-admitted patient discussed, a multidisciplinary management plan must be in place or developed at the MDCC, and one participating health care provider must record the following items in each patient's medical record:

- a) the date of the case conference, and the start and end times at which each patient was discussed during the case conference
- b) the names of the participants involved in the discussion relating to the patient and their designations/clinical backgrounds
- c) a description of the non-admitted patient's problems, goals and strategies relevant to that MDCC, and
- d) a summary of the outcomes of the MDCC.

Note: c) and d) may be completed through documentation (or revision) of a multidisciplinary care plan completed after each non-admitted MDCC where the patient is not present.



**Semi-structured jurisdiction consultation guide**

<b>1 Introduction</b>	
a	i. Welcome and introductions of everyone participating.
b	i. Overview of study and approach.
<b>2 Background</b>	
a	i. How widespread are MDCCs in your jurisdiction? Do they occur at all health sites? ii. If not, what are the characteristics of the health sites at which they occur? iii. Do they differ in how they are run between health sites?
b	i. What are the main cost drivers of MDCCs?
<b>3 MDCC data collection</b>	
a	i. Is there any data on MDCCs currently collected in your jurisdiction? ii. Is so, what is this data? iii. How complete and robust is this data? iv. Are we able to get access to it?
b	i. If MDCC costing was to be implemented, what additional data would need to be collected? ii. What would be the implication of this additional data collection for data systems? What changes would need to be made?
<b>4 Policy</b>	
a	i. What is your Jurisdiction’s view on the proposal to count, classify and cost MDCCs?
b	i. What is your Jurisdiction’s perspective on the appropriateness of the proposed definition for MDCCs? ii. Do you feel there are any additional minimum conditions that should need to be met? iii. Do you think the definition should be universally applicable as proposed at the moment?  Key elements of definition are: <ul style="list-style-type: none"> <li>• MDCC is arranged in advance</li> <li>• three or more health care providers from different specialities are present</li> <li>• requires a multidisciplinary management plan</li> <li>• administrative requirements</li> </ul>
c	i. Do you think there is any need to have multiple categories of MDCCs? If so, why?
<b>5 Health site visit (if applicable)</b>	
a	i. Are you able to provide contact details for the health site nominated in your jurisdiction to participate in this study?
b	i. What would be the most appropriate method to contact the health site? Directly, or via an intermediary?
c	i. Are there any confidentiality protocols that need to be signed in order to interview health site staff, collect data and/or observe MDCCs?



## Appendix E Health site consultation guide



### MDCC study: health site consultation guide

#### **Purpose:**

- Understand how MDCCs proceed at the health site
- To understand to what extent the MDCCs observed are representative of typical experiences, and if not, how and why they differ
- To collect data on who attends, how long it goes for and any other cost drivers for MDCCs
- Collect feedback on the appropriateness of the definition for MDCCs
- Understand if the site has access to or collects any relevant data

#### **Method:**

- 60-minute interview with the MDCC coordinator of a clinic
- 30-minute interview with up to two MDCC clinicians (or other clinical support staff) from the same clinic

#### **The definition for a non-admitted MDCC where the patient is not present:**

Non-admitted MDCCs where the patient is not present are a meeting or discussion held between health care providers, arranged in advance, to discuss a patient in detail and to coordinate care. Non-admitted MDCCs ensure that a patient's multidisciplinary care needs are met through a planned and coordinated approach.

A non-admitted MDCC must involve three or more health care providers. The health care providers may be of the same profession (medical, nursing, midwifery or allied health). However, they must each have a different speciality so that the care provided by each provider is unique.

For each non-admitted patient discussed, a multidisciplinary management plan must be in place or developed at the MDCC, and one participating health care provider must record the following items in each patient's medical record:

- a) the date of the case conference, and the start and end times at which each patient was discussed during the case conference
- b) the names of the participants involved in the discussion relating to the patient and their designations/clinical backgrounds
- c) a description of the non-admitted patient's problems, goals and strategies relevant to that MDCC, and
- d) a summary of the outcomes of the MDCC.

Note: c) and d) may be completed through documentation (or revision) of a multidisciplinary care plan completed after each non-admitted MDCC where the patient is not present.

#### **Guidance note for consultation guide**

The consultation guide (next page) is designed to support the data collection necessary to classify and cost non-admitted MDCCs where the patient is not present. It recognises that, depending on circumstances, MDCCs at a clinic proceed in a number of different ways. The consultation guide focuses on, first, understanding the 'typical' process that an MDCC takes.

It then seeks to understand the (top four) alternate processes that an MDCC might take and the reasons that those exceptions occur.



**Semi-structured MDCC coordinators and clinicians consultation guide**

<b>A</b>	<b>Introduction</b>
<b>1</b>	i. Welcome, introductions, overview of study and approach
<b>2</b>	i. Confirm what clinic is being discussed
<b>B</b>	<b>Background</b>
<b>1</b>	i. How long have MDCCs been proceeding at this clinic?
<b>2</b>	i. How often do they occur?
<b>C</b>	<b>Number of patients</b>
<b>1</b>	i. How many patients are typically discussed in an MDCC? ii. Does this vary significantly? iii. What proportion of MDCCs would see the typical number of patients discussed?
<b>2</b>	i. Are all the patients who are discussed at the MDCC non-admitted patients? If not, what proportion are non-admitted?
<b>3</b>	i. Typically, how long does it take to complete an MDCC? ii. Does this time vary significantly? iii. What proportion of MDCCs would be completed in that timeframe?
<b>D</b>	<b>Compliance</b>
<b>1</b>	i. Does the clinic receive ABF funding?
<b>2</b>	i. Are multidisciplinary care plans created or updated for patients that are discussed? ii. For what proportion of patients does this occur?
<b>3</b>	i. What is your site's view on the appropriateness of the definition for MDCCs?
<b>4</b>	i. Does your site collect or have access to any data that would support counting and costing of these MDCCs?
<b>E</b>	<b>Participation of clinicians and clinical support staff in typical scenario</b>
<b>1</b>	i. Typically, does any preparatory activity take place prior to the MDCC? ii. If so, what type of activity is this? Who completes this? How long does it take?
<b>2</b>	i. In a typical MDCC, who attends the MDCC? ii. What are their roles and levels?
<b>3</b>	i. Do all staff attend the entire length of the MDCC?
<b>4</b>	i. Are these staff members employed at the health site?
<b>5</b>	i. How do staff participate in the MDCC (e.g. in-person, teleconference etc)? ii. If travel is involved for staff, approximately how long is the commute? Are there any direct travel costs?
<b>6</b>	i. Typically, are there any post meeting activities? Please describe.
<b>F</b>	<b>Exception scenarios</b>
<b>1</b>	i. In circumstances where the typical scenario is not followed, why was it not followed?
<b>2</b>	ii. Re-ask above questions (sections: C, D, E) for up to four exception scenarios

## Appendix F Data collection template

Study to classify, count and cost MDCCs - Data collection template																							
[Jurisdiction]																							
[Health site]																							
[Insert Clinic]																							
[Date]																							
Sources for data: [Name], [Title]		1	1.1	1.2	2	2.1	2.2	2.3	2.4	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	4	4.1	5	5.1	6	6.1
		Participation in scheduling meeting	Total time spent	Participation in retrieving files	Total time spent	Participation in preparing for presentation	Total time spent	Participation in MDCC	Proportion of total time spent	Proportion of MDCCs attended	Is the staff member employed at health site?	How did staff participate in the MDCC?	If travel involved, what is the travel time involved?	What are the direct travel costs?	Description of additional pre meeting activity	Description of post meeting activity	Additional comment						
		Yes / No	mins	Yes / No	mins	Yes / No	mins	Yes / No	%	%	Yes / No	drop down	Mins	\$	Text	Text	Text						
<b>1</b>	<b>Typical scenario</b>																						
1.1	<b>Number of patients</b>																						
1.11	Number of patients typically discussed in MDCC																						
1.12	Proportion of patients discussed that are non-admitted																						
1.2	<b>Time to complete</b>																						
1.21	Typical length of time to complete MDCC																						
1.22	Proportion of MDCCs completed in typical length of face-to-face time																						
1.3	<b>Compliance</b>																						
1.31	Proportion of patients for which the MDCC leads to the creation or updating of multidisciplinary management plans.																						
1.32	Proportion of patients for which required information (date, start/end time of each patient discussed) is collected.																						
1.33	Proportion of patients for which required information (names of participants, participants designations) is collected.																						
1.34	Proportion of patients for which required information (description of the non-admitted patient's problems, goals and strategies relevant to the MDCC, and summary of the outcomes of the MDCC) is collected.																						
1.35	Does this MDCC currently receive any MBS funding?																						
1.4	<b>Medical clinician participation</b>																						
1.41																							
1.42																							
1.43																							
1.5	<b>Nursing &amp; midwifery participation</b>																						
1.51																							
1.52																							
1.53																							
1.6	<b>Allied health &amp; dentistry participation</b>																						
1.61																							
1.62																							
1.63																							
1.7	<b>Administrative and clinical support officer participation</b>																						
1.71																							
1.72																							
1.73																							

