

# **Alternative Aged Care Assessment, Classification System and Funding Models Final Report**

---

**Volume One: The Report**

**February 2017**

Jenny McNamee

Chris Poulos

Habibur Seraji

Conrad Kobel

Cathy Duncan

Anita Westera

Peter Samsa

Kathy Eagar

**Suggestion citation:**

McNamee J, Poulos C, Seraji H et al. (2017) *Alternative Aged Care Assessment, Classification System and Funding Models Final Report*. Centre for Health Service Development, Australian Health Services Research Institute, University of Wollongong.

# Contents

## Volume One

<b>Abbreviations.....</b>	<b>1</b>
<b>Glossary of Terms.....</b>	<b>4</b>
<b>Key messages.....</b>	<b>7</b>
<b>Executive summary .....</b>	<b>9</b>
Recommended Option .....	10
<b>1 Introduction.....</b>	<b>12</b>
1.1 Background and context .....	12
1.2 Scope of the project.....	12
<b>2 Project Methodology.....</b>	<b>13</b>
2.1 Data sources.....	13
<b>3 An overview of key design issues .....</b>	<b>15</b>
3.1 Current ACFI funding model .....	15
3.2 Pricing .....	16
3.3 Classification and pricing optional approaches.....	17
3.4 Implementation of the funding system .....	18
3.5 Assessment issues and options.....	18
3.6 The need to align incentives .....	22
3.7 Audit systems.....	26
<b>4 Detailed outline of options for the future funding approaches.....</b>	<b>27</b>
4.1 Option One: refinement of the current ACFI model .....	27
4.2 Option Two: a simplified model with four funding levels.....	29
4.3 Option Three: Option Two plus supplements subject to external assessment .....	31
4.4 Option Four: an Activity Based Funding model with a branching classification. ....	32
4.5 Option Five: a blended payment model. ....	34
<b>5 Evaluation of the options for the future .....</b>	<b>37</b>
<b>6 The recommended staged approach to residential aged care funding reform.....</b>	<b>39</b>
6.1 Stage 1 – Refine the current ACFI based on expert advice .....	39
6.2 Stage 2 - Undertake a costing and classification study .....	40
6.3 Stage 3 – Model and test a fixed and variable payment model.....	42
6.4 Stage 4 - Implementation of fixed and variable payment model using a branching classification.....	44
<b>7 High level project methodology to implement the recommended model .....</b>	<b>48</b>
<b>8 Next steps.....</b>	<b>53</b>
<b>References .....</b>	<b>54</b>

## List of tables

### Volume One

Table 1	Current ACFI funding model.....	16
Table 2	Current ACFI funding model expressed as Relative Value Units (RVUs) .....	16
Table 3	Criteria for evaluating the five options .....	38
Table 4	Overall project schedule .....	50

## List of figures

### Volume One

Figure 1	Methods for formulating funding approach options .....	13
Figure 2	An illustration of a branching classification structure.....	17

## Abbreviations

Acronyms	Description
ABF	Activity Based Funding
ACAT	Aged Care Assessment Team
ACFI	Aged Care Funding Instrument
ACN	Australian College of Nursing
ACSA	Aged and Community Services Australia
ADL	Activities of Daily Living
AGGIR	Autonomie Gérontologique Groupes Iso-Ressources (Gerontological Autonomy Iso-Resource Groups)
AHSRI	Australian Health Services Research Institute
AN-SNAP	Australian National Subacute and Non-acute Patient
ANZSGM	Australian and New Zealand Association of Geriatric Medicine
APA	Allocation personnalisée d'autonomie (Personalised Allowance for Autonomy)
AR-DRG	Australian Refined Diagnosis-Related Groups
BEH	Behaviour
CALD	Culturally and Linguistically Diverse
CAM	Care Aggregated Module
CDC	Consumer Directed Care
CHC	Complex Health Care
CHSP	Commonwealth Home Support Program
CMI	Casemix Index
COTA	Council on the Ageing
DoH	Department of Health
DST	Decision Support Tool
ED	Emergency Department
EHR	Electronic Health Record
FIM	Functional Independence Measure

<b>Acronyms</b>	<b>Description</b>
GP	General Practitioner
IADL	Instrumental Activities of Daily Living
IHPA	Independent Hospital Pricing Authority
LASA	Leading Aged Services Australia
LGBTI	Lesbian, Gay, Bisexual, Transgender, and Intersex
LTC	Long-Term Care
MAC	My Aged Care
MAPLe	Method for Assigning Priority Levels
MBS	Medicare Benefits Schedule
MDS	Minimum Data Set
MEDPAC	Medicare Payment Advisory Commission
MMSE	Mini-Mental State Examination
NACA	National Aged Care Alliance
NAF	National Assessment Framework
NEP	National Efficient Price
NHCDC	National Hospital Cost Data Collection
NMDS	National Minimum Data Sets
NSAF	National Screening and Assessment Form
NWAU	National Weighted Activity Unit
OCRE	Other Cost Reimbursed Expenditure
PAS	Psychogeriatric Assessment Scale
PEG	Percutaneous Endoscopic Gastrostomy
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analysis
RAC	Residential Aged Care
RACF	Residential Aged Care Facility
RACGP	Royal Australian College of General Practitioners
RAI	Resident Assessment Instrument

---

<b>Acronyms</b>	<b>Description</b>
RAS	Regional Assessment Services
RCS	Resident Classification Scale
RUG	Resource Utilisation Groups
RVU	Relative Value Unit
SAM	Standard Aggregated Module
SMAF	Système de Mesure de l'Autonomie Fonctionnelle (Functional Autonomy Measurement System)
SPA	Speech Pathologists Association
STRC	Short Term Restorative Care
STRIVE	Staff Time and Resource Intensity Verification
WAU	Weighted Activity Unit
WWST	Wage Weighted Staff Time

---

## Glossary of Terms

Terms	Definition
ABF - Activity Based Funding	A system of funding service providers whereby they are paid for the number and characteristics of people that they provide services to.
ACAT - Aged Care Assessment Team	A multidisciplinary team of health professionals responsible for determining eligibility for entry to residential aged care and other types of care under the Aged Care Act 1997. In Victoria, this function is carried out by the Aged Care Assessment Service.
ACFI - Aged Care Funding Instrument	A resource allocation instrument that focuses on the main areas that discriminate care needs among residents. It assesses core care as a basis for allocating subsidies to residential aged care facilities.
ADL - Activities of daily living	Self-care tasks that include, but are not limited to: functional mobility, bathing and showering, dressing, self-feeding, personal hygiene and grooming and toileting.
AN-SNAP - Australian National Subacute and Non-acute Patient Classification Version	A casemix classification for subacute and non-acute care patients. AN-SNAP classifies episodes of subacute and non-acute patient care that are provided in inpatient, outpatient and community settings. Patients are classified on the basis of setting, care type, phase of care, assessment of functional impairments, age and other measures.
Approved provider	A person or organisation approved under Part 2.1 of the <i>Aged Care Act 1997</i> to be a provider of aged care for the purposes of payment of subsidies.
AR-DRG - Australian Refined Diagnosis-Related Groups	An Australian admitted patient classification system which provides a clinically meaningful way of relating the number and type of patients treated in a hospital (that is, its casemix) to the resources required by the hospital.
Care recipient	A person who is receiving aged care provided by an approved provider.
Casemix	A system that allocates service recipients into similar groups to permit comparison of outcomes between providers with differing mixes of service recipients.
CDC – Consumer Directed Care	CDC is an approach to the planning and management of care, which allows consumers and carers more power to influence the design and delivery of the services they receive, and allows them to exercise a greater degree of choice in what services are delivered, where and when they are delivered.
Challenging behaviour	A term used to describe those behaviours that threaten the quality of life and/or physical safety of an individual or others
Dependency	A subjective, secondary need for support in the domain of care to compensate a self-care deficit.
Frailty	A chronic condition acquired with aging and associated with adverse outcomes, such as ADL impairment, falls, institutionalisation, and death.



Terms	Definition
Functional Independence Measure	A basic indicator of patient disability. It involves 18 items that are ranked on a seven point scale indicating dependence.
Grey literature	Materials and research produced by organizations outside of the traditional commercial or academic publishing and distribution channels.
IADL - Instrumental activities of daily living	Activities that are not necessary for fundamental functioning, but they let an individual live independently in a community. They include housework, preparing meals, taking medications as prescribed, managing money, shopping for groceries or clothing, use of telephone or other form of communication, and transportation within the community.
LTC - Long-term care	A variety of services that help to meet both the medical and non-medical needs of people with a chronic illness or disability who cannot care for themselves for long periods.
MMSE - Mini-Mental State Examination	A 30-point questionnaire that is used extensively in clinical and research settings to measure cognitive impairment.
My Aged Care	Single point of entry for Australians to access aged care information.
NAF - National Assessment Framework	A nationally consistent approach to assessing people's aged care needs and eligibility for government-funded services.
National Health Data Dictionary	A dictionary that provides national standards for the broader health sector.
NEC - National Efficient Cost	A funding system that is used when Activity Based Funding is not suitable for funding such as in the case of small rural public hospitals. In these cases, services are funded by a block allocation based on size and location.
NEP - National Efficient Price	The price paid for the delivery of a National Weighted Activity Unit.
NHCDC - National Hospital Cost Data Collection	An annual and voluntary collection of public hospital data used to determine the National Efficient Price (NEP) and National Efficient Cost (NEC) for the funding of public hospitals services.
NHCDC - National Hospital Cost Data Collection data set specifications	A set of specifications that define what needs to be done in order to apply best practice costing principles to generating NHCDC data.
NMDS - National Minimum Data Set	A minimum set of data elements agreed for mandatory collection and reporting at a national level and is maintained by the Australian Institute for Health and Welfare.
Non-acute care	Care in which the primary clinical purpose or treatment goal is support for a patient with impairment, activity limitation or participation restriction due to a health condition.
NSAF - National Screening and Assessment Form	Supports the collection of information for the screening and assessment processes conducted under My Aged Care.
NWAU - National Weighted	A unit of relative costliness (a Relative Value Unit) that describes the average

<b>Terms</b>	<b>Definition</b>
Activity Unit	cost of an acute hospital diagnosis.
Outcome	A change in an individual or group of individuals that can be attributed (at least in part) to an intervention or series of interventions.
Permanent resident	A person who enters residential aged care as their ongoing place of residence.
RAS - Regional Assessment Services	Regional services that conduct assessment for applicants for home support services in order to develop a care support plan (do not currently operate in Victoria or Western Australia).
Re-ablement	Targeted, time-limited interventions that address functional loss, or that help the resident regain their confidence or capacity to resume activities – implemented by aged care facility staff.
Residential aged care	Personal and/or nursing care that is provided to a person in a residential aged care service in which the person is also provided with accommodation that includes meals, cleaning services, furniture and equipment. The residential aged care service must meet certain building standards and appropriate staffing in supplying the provision of that care and accommodation.
Restorative care	Support for the provision of this type of care needs longer term consideration. It is similar to re-ablement but implemented by clinical staff such as allied health and medical clinicians, possibly externally based. Requirements for restorative care would be externally assessed and based on sound, objective criteria involving accredited providers.
Scalability	The capability of a system, network, or process to handle a growing amount of work, or its potential to be enlarged in order to accommodate that growth.
Snowballing	A process of searching and locating, tracking and chasing down references in footnotes and bibliographies of articles and other research documents.
Subacute care	Specialised multidisciplinary care in which the primary need for care is optimisation of the patient’s functioning and quality of life. Subacute care comprises the following care types; Rehabilitation care, palliative care, geriatric evaluation and management (GEM) care and psychogeriatric care.
TENS therapy - Transcutaneous electrical nerve stimulation	A therapy that uses low-voltage electrical current for pain relief.
Wellness	An approach to care that seeks to build on the strengths, capacity and goals of an individual in order to maximise their functioning and participation. This should be considered “core business” of aged care services and not attract additional payments.

## Key messages

- The residential aged care sector has undergone considerable change since the current Aged Care Funding Instrument (ACFI) was introduced close to a decade ago. This is due in large part to a substantial growth in community aged care programs that has enabled people to live in their own homes for much longer.
- Today, residents are older (half are aged over 85 years on entry) and frailer, with an annual mortality rate of around 32%. Reflecting this profile, half of those entering residential care will be there for two years or less.
- Given this changing profile, the ACFI is no longer fit for purpose. It does not adequately focus on what drives the need for care among this frail population and it no longer satisfactorily discriminates between residents based on their care needs. One third of all residents are now classified to just one ACFI payment class, with most of the remaining 63 classes being rarely claimed.
- The structural problem is that the ACFI is **additive** in design. It contains three scales and multiple questions and sub-questions, with the score from each item being added to give a total score. The higher the total score, the more ACFI funding. This design assumes that each item stands alone and that care needs are met item by item rather than in combination. This is not clinically plausible.
- We propose a move from the ACFI's additive model to a **branching** classification that considers a person's needs in combination. This branching structure will focus on those resident needs that best predict the level of resources they require.
- The other structural change we propose is to recognise that a substantial proportion of a facility's care costs are **fixed** (at least in the short term) and determined by the number (and not the complexity) of residents in care. The remaining costs are **variable** based on the needs (complexity) of each individual.
- We therefore propose a new payment model with two elements. Standard per diem ('**fixed**') care payments cover the costs of ensuring capacity and providing the care that all residents receive equally. The **variable** payment covers the costs of individualised care for residents. This covers the care that some residents receive but not others. Activity Based Funding (ABF) will be the model used to fund this variable component.
- There are lessons from health and other human service sectors in Australia and internationally that can be drawn upon to inform this, including ABF models in the health sector. However, the aged care sector does not currently have a good understanding of ABF or how it works. While hospital acute and subacute care ABF models are not relevant, residential aged care is akin to non-acute health care and this evidence can be used to inform the design of a tailor-made model for the Australian residential aged care sector.
- Given that the model we are recommending represents a significant change, we propose a staged approach whereby development occurs over a number of carefully defined stages, with key stakeholder engagement and education being integral during all stages. The initial stages will take 18 to 24 months and will include refinements to the current ACFI assessment instrument.

- As part of this staged development, there is a need for a costing and classification study to inform the development of the branching classification and to empirically determine the proportion of costs that are fixed and variable. Fixed costs may differ between facilities depending on size, location and role and a costing study will help to determine this.
- The proposed new model with its fixed and variable elements can be implemented with either an internal or external system to assess the needs of residents. The best assessment system for the future is yet to be determined and will need to be resolved in the early stages of implementation.
- A key feature of our recommended model is a one-off adjustment payment for new residents. This recognises additional time-limited costs associated with a person-centred approach to helping residents transition to their new environment, staff getting to know residents and families, care planning, behaviour management (if necessary), health care assessments (including pain management) and the development of an advanced care plan for each resident.
- The ABF model we propose is conceptually more sophisticated than the current model but, once in place, will be administratively more efficient. A key advantage is that it provides the basis for greater funding certainty for both government and the sector as well as the information necessary to better manage financial risks.
- Through an iterative process of classification development, this ABF model provides the framework for government and the sector to move from a focus on Activity Based Funding to a broader focus on the Activity Based Management of residential aged care. This includes the potential to routinely measure and benchmark consumer outcomes and service quality using methods that take into account the changing mix of residents in aged care facilities.

## Executive summary

This is the final report of a project undertaken by the Australian Health Services Research Institute (AHSRI), University of Wollongong and commissioned by the Australian Government Department of Health (DoH) to develop options and recommendations for future funding models to be adopted for the residential aged care in Australia.

The Australian Government has legislative and regulatory responsibilities for aged care and invests substantial amounts of funding to the aged care sector annually (\$10.6 billion in 2014/15). Its most recent budget papers suggest that it is facing higher than projected sector-wide growth, estimated at \$3.8 billion over the next four years. In this context, AHSRI was commissioned to undertake this project as part of ongoing reforms in the aged care sector.

This review of the current system and consideration of options for the future has addressed five key issues: classification and assessment tools, pricing, funding models (including analysis of the resource and infrastructure implications), implementation considerations and audit mechanisms. Review activities have included a qualitative review of national and international approaches to aged care funding, a context and environment scan, and stakeholder consultations; and quantitative analysis of Aged Care Funding Instrument (ACFI) data provided by the Department of Health (DoH). The key deliverables (included in the body of this report) are a set of options and a recommended approach to funding reform and a high level implementation methodology.

A number of criteria emerged from the qualitative and quantitative reviews that formed the basis for formulating the options for aged care sector funding and for the selection and design of the recommended option. These included sustainability and certainty, equity in funding between different types of providers (particularly in the recognition of fixed and variable costs), alignment with cost drivers, incentive systems, approaches to the assessment of resident care needs, operational efficiency and implementation considerations.

Five options are included in this report (see Section 4):

### ***Option One - Refinement of the current ACFI model.***

This option retains the current overall design of the additive model but refines the measures of care need. This includes alternatives for the determination of price relativities. In the short term price relativity adjustments could be based on expert clinical advice. Subsequent adjustments would be based on a costing study, which would be associated with a longer implementation timeframe. Option One would involve either a six month or 12 month implementation timeframe depending on the decision regarding the basis for pricing.

### ***Option Two - A simplified model with four funding levels.***

This is a simplified “consumer directed care” model with only four funding levels or bands that map to the four funding levels that currently exist for home care packages but with pricing which reflects the cost of residential care. As with Option One, this option would involve a six month implementation timeframe or 12 months if pricing is to be informed by a costing study.

### *Option Three - Option Two plus supplements subject to external assessment.*

In real terms, this is a variant of Option Two with the provision of special supplements based in specified criteria being met. The implementation timeframe for this option is identical to Option Two.

### *Option Four - An Activity Based Funding (ABF) model with a branching classification.*

This option is based on the experience of the national public hospital ABF model which would involve an aged care Weighted Activity Unit (WAU) and the determination of a National Efficient Price (NEP) for residential aged care. The branching classification would create 'classes' of residents with similar care needs and costs and would be based on assessment variables that are aligned with cost drivers. This would require an implementation project conducted over two years and ongoing regular updates of the classification. Regular costing studies would also need to be undertaken to inform the cost relativities between classes and the NEP.

### *Option Five - A blended payment model with fixed and variable costs.*

This option recognises the fixed and variable costs of delivering care. The two main elements of this model are standard per diem or fixed payments to cover the cost of ensuring capacity within the facility and the variable payment to cover the costs of individualised care for residents. Both the fixed and variable payments under this model would be determined by a costing study. This option would also involve a two year implementation plan.

All five options were evaluated against a set of criteria that addressed the key issues identified for the sector, with Option Five assessed as most effectively addressing these criteria. Although this option will likely result in more significant impacts on workforce and aged care system infrastructure, it will deliver benefits that far outweigh these short term resourcing concerns.

### *Recommended Option*

**The recommended option is Option Five, with Option One being adopted in the short term to address immediate ACFI shortcomings.**

It is recommended that Option Five be implemented over a two year period with Option One, the refinement of the ACFI, to be introduced within the first six months to address the more immediate concerns about the performance of the current ACFI tool.

The implementation project should be undertaken in four stages each with its defined set of deliverables. The first stage would be the refinement of the ACFI based on clinical expert review. Subsequent stages include a costing and classification development study, the introduction of new assessment tools and the modelling and testing of the fixed and variable payment approach, and the implementation of final fixed and variable payment model with a branching classification.

Stakeholder engagement, communication and an effective education and project management plan are keys to the successful implementation of the significant reforms that are recommended. Facility staff must be engaged in the critical activities of assessment and service delivery data collection and in providing the required financial information for costing and classification development.

Our recommended proposal represents significant change for the sector. The engagement of industry leaders in decision-making and sector wide understanding of the key elements and aims of the reforms will help to ensure acceptance and effective operation of the new funding approach. This should be achieved through consultation and education activities throughout both the detailed design and implementation phases of the project.

Critical issues that should now be addressed are the requirements for legislative changes associated with the recommended approach and decisions regarding transition arrangements in the lead up to the new funding model.

## 1 Introduction

The Australian Health Services Research Institute (AHSRI), University of Wollongong, has been commissioned by the Australian Government Department of Health to undertake a study to develop options for future funding models that might be adopted for the residential aged care sector.

This final report incorporates key findings from a literature review, a national environmental and context scan and a high-level data analysis.

It includes five options for the future along with an outline of the preferred approach.

### 1.1 Background and context

The Australian Government is responsible for providing the legislative and regulatory framework of the Australian aged care system. Australian Government expenditure on aged care subsidies and supplements totalled \$10.6 billion dollars in 2014/15.

Given its significant investment of resources, the Australian government is committed to developing effective and sustainable funding models for aged care services. In this context, it has increased funding estimates for residential aged care by \$3.8 billion over the next four years to reflect higher than anticipated Aged Care Funding Instrument (ACFI) related expenditure. It has also announced its intention to investigate alternative assessment and funding arrangements for aged care, including options for external assessment processes.

The current project has been commissioned to contribute to the Australian Government's ongoing reform of the aged care sector. The key output from this study is a synthesis of international approaches to aged care funding and a set of options for changes to the model currently used in the Australian residential care sector.

### 1.2 Scope of the project

The scope of the project was limited to the assessment tools, classification systems and models for the allocation of funding for the provision of care and services in residential aged care. Although one of the key design considerations was the capacity to interface with existing mechanisms for access to aged care and with the broader health system, the options for funding care provided outside of the residential aged care setting were not in-scope.

This project does not address issues such as the sources and amounts of funding to be allocated. Although it is a critical consideration that the funding system incentivises high quality care delivery, issues relating to the safety and quality of care provided are also out of scope.

This project did consider relevant international funding initiatives and Australian approaches in sectors such as health and disability care to ensure that the potential to adapt the most promising aspects of other models was considered in the development of options.

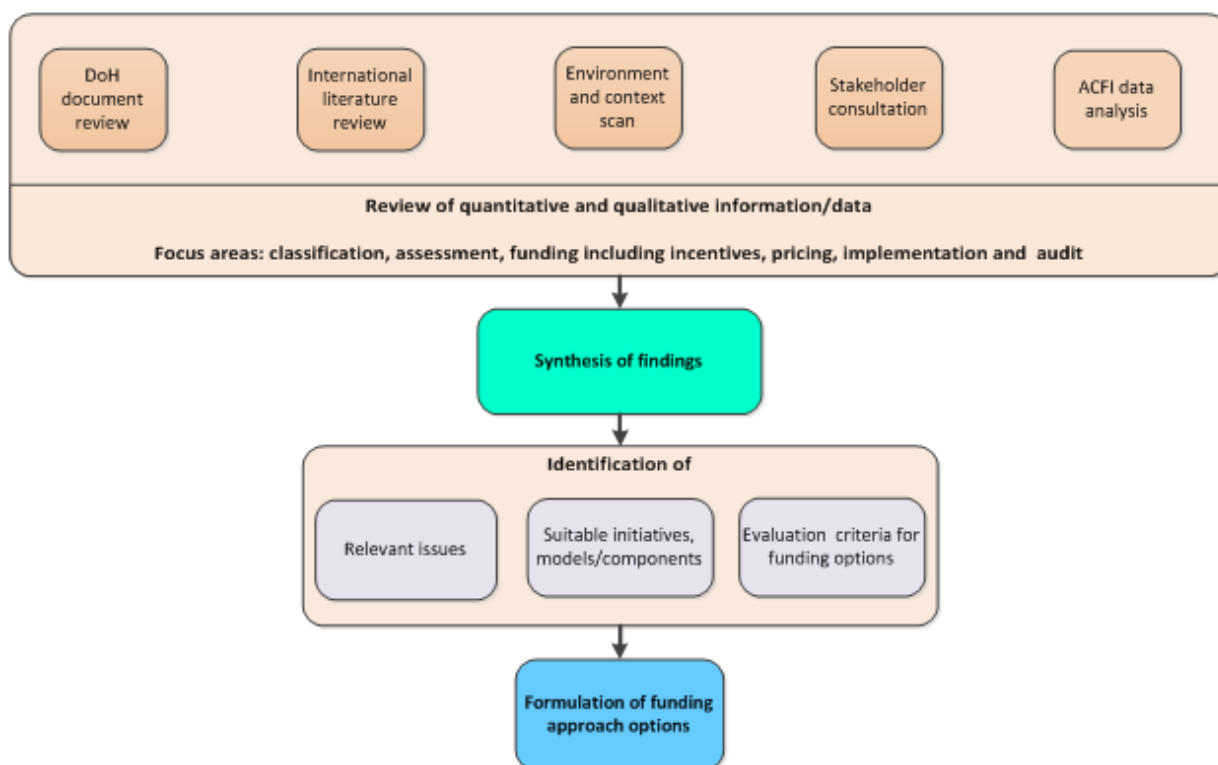


## 2 Project Methodology

The methodology utilised relevant quantitative data provided by the Department of Health (DoH) and qualitative data from routine program information sources which was supplemented by a national context scan including website reviews and consultations with stakeholders.

A graphical representation of the methods involved in the formulation of funding options is presented below.

**Figure 1** Methods for formulating funding approach options



The approaches to the literature review, stakeholder consultations and development of options were aligned with the five key issues for the overall project listed below:

1. The **classification** system and associated assessment tools;
2. The technical design of the **funding model** itself;
3. The methodology for determining the **pricing** of services;
4. Features of the **implementation** design for the funding system, and
5. The **audit** systems that are adopted and the role of audit.

A more detailed description of the methodology used for each of the project activities can be found along with the relevant findings in the Appendices.

### 2.1 Data sources

There were four primary qualitative data sources for this project. These were:

- Documents provided by DoH providing reviews of international and Australian funding models including the ACFI;
- National and international literature review focusing on alternative classification systems, funding models and funding system implementation in residential care;
- National environment and context scan, and
- Consultations with stakeholders.

In relation to quantitative data, the Department provided eight recent years of ACFI assessment data at the client level for analysis. There were no measures of client-level resource utilisation within this data set.

### 3 An overview of key design issues

The project has considered the five overlapping and interrelated issues mentioned above, (i.e. classification, funding, pricing, implementation and audit) and this section provides an overview of how these have been incorporated into the design considerations for funding reform. These considerations have also been informed by the environment scan and literature review, stakeholder consultation and ACFI data analysis. Background and contextual information, including a summary overview of the current ACFI system and an analysis of ACFI data, is included in the appendices (Volume 2 of this report).

A change in the core funding model for residential aged care may be achieved by revising any of the above five elements alone, or by revising two or more elements in combination. As one example, if Commonwealth expenditure is increasing at a rate not considered to be justified based on changing resident needs, this could potentially be addressed in multiple ways. For example:

- Revise the classification system so that fewer residents are allocated to the high cost classes. This could be achieved by revising the assessment tools. Alternately, the current assessment tools could be retained but the thresholds for defining each level could be lifted.
- Maintain the current assessment system but reduce the (subsidy) price paid to each class (level) or change the relativities between the classes. As one example, the relativities between the funding bands might be changed so that they are determined based on marginal costs rather than full average costs.
- Maintain both the current assessment tool and the price but change implementation arrangements. For example, some elements of the assessment might best be undertaken by external rather than internal assessors. Such a change could be complemented by introducing more comprehensive auditing arrangements.

Each of these elements is discussed below along with an introduction to the various options for reform. These options are considered in further detail later in this report.

#### 3.1 Current ACFI funding model

The aged care funding model consists of three components – accommodation, basic services and care. This project is concerned only with the care component. The core of the design of the current funding model for the care component is that each resident is funded at a basic daily subsidy rate based on their ‘usual’ needs in each of the three ACFI domains - Activities of Daily Living (ADL), Behaviour (BEH) and Complex Health Care (CHC). Section 3.5.1 provides more detail on these domains.

For illustrative purposes, the current rates are shown in the table below. The daily subsidy paid for each resident for the care component is the sum of these three daily subsidies.

**Table 1** Current ACFI funding model

Level	Activities of daily living (ADL)	Behaviour (BEH)	Complex Health Care (CHC)
Nil	\$0.00	\$0.00	\$0.00
Low	\$36.65	\$8.37	\$16.37
Medium	\$79.80	\$17.36	\$46.62
High	\$110.55	\$36.19	\$67.32

There are also a range of subsidies and supplements. These include, for example, an oxygen supplement, enteral feeding supplements and supplements for veterans and homeless residents. Some of these supplements (such as those just listed) relate to the needs of individual residents. Others address structural issues such as the geographic isolation of some care homes. While these subsidies are an important feature of the overall design of the aged care funding system, they are supplementary rather than the core model.

### 3.2 Pricing

As the above table illustrates, the Commonwealth determines a subsidy (a price) for each level in each domain. The table below presents the same information but this time as a set of Relative Value Units (RVUs). In this illustration, the ADL level of 'low' is assigned a value of 1.00. All other values are relative to this. For example, the daily subsidy for ADL=High is 3.02 times higher than ADL=Low (pays 3.02 times per more day). The implication is that the cost of caring for a resident with high ADL needs is three times more than a resident with low ADL needs. Likewise, CHC=High has an RVU of 1.84, implying that the CDC=High care component is 84% more per day than the ADL=Low care component.

**Table 2** Current ACFI funding model expressed as Relative Value Units (RVUs)

Level	Activities of daily living (ADL)	Behaviour (BEH)	Complex Health Care (CHC)
Nil	0.00	0.00	0.00
Low	1.00	0.23	0.45
Medium	2.18	0.47	1.27
High	3.02	0.99	1.84

In simple terms, pricing has two components. One is to determine each of the RVUs in the funding formula. The other is to determine a dollar value for an RVU of 1.00. This is similar to the approach of Activity Based Funding which is discussed in Appendix Five.

### 3.3 Classification and pricing optional approaches

One of the issues that we have considered is how the relativities above were determined and, by extension, whether these relativities should be retained in a future funding model. The same applies to the current subsidy rates (prices).

Another issue is whether there is an interactive effect between these three domains. The current model is **additive** in that the subsidy per day is the sum of the three domains. This assumes that each domain stands alone. This is not clinically plausible.

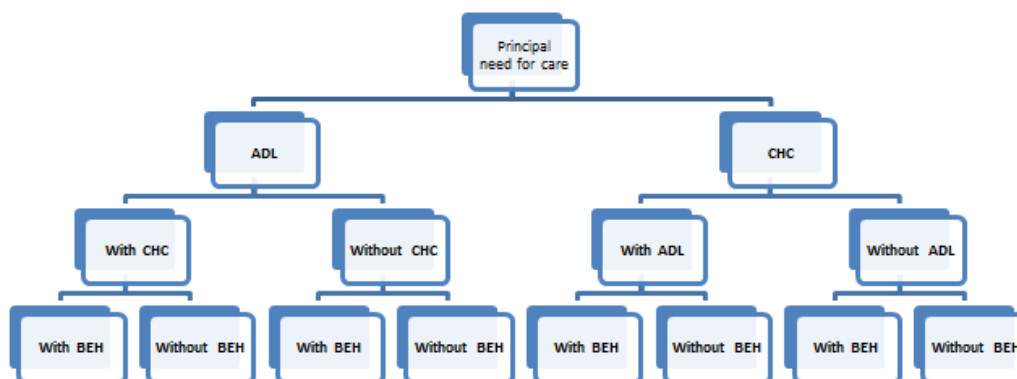
An alternative to an additive model is a classification and pricing model that uses a **branching** structure. If such a structure were applied in the residential aged care context, the design could start by identifying the domain that is the principal reason why the person's needs are best met in the residential setting. This would form the first branch in a classification tree. Subsequent branches would be added in which domains would be progressively included based on their capacity to explain resource requirements.

An illustration of a branching structure that forms an alternative to an additive structure is shown below (Figure 2). In this approach prices (subsidies) are determined for the final classes in the classification tree. This diagram is included only for illustrative purposes to make the point that alternative structures for the design of the funding system are available.

The major casemix classifications used in national and international health care system Activity Based Funding (ABF) models are branching classifications and not additive in design. These include the Diagnosis Related Group (AR-DRG) classification for acute care and the Subacute and Non-acute Patient (AN-SNAP) classification for subacute (Palliative Care, Rehabilitation, Psychogeriatric and Geriatric Evaluation and Management) and non-acute (maintenance and supportive) care. Residential aged care is akin to non-acute care in the health sector.

Such an approach would not have been possible in the aged care sector in the past because the sector lacked the IT systems necessary for implementation. But this is no longer the case. This creates the opportunity to design a funding system for the future that is conceptually sophisticated but administratively straightforward. A sophisticated funding model can now be achieved using standard information systems.

**Figure 2** An illustration of a branching classification structure



### 3.4 Implementation of the funding system

A range of implementation issues have been considered but three issues related to assessment and incentives warrant special mention. These are discussed below and are also considered in the design options presented in Section 4.

One key implementation issue is **how the ACFI assessment is undertaken**. The current system (described in more detail in Section 3.5 below) is that the ACFI assessment is undertaken by the care home in the first few weeks after a resident is admitted and has settled. This is predicated on the assumption that the resident requires progressive assessment over time in order to assess their 'usual' care needs. This reflects the additive design of the ACFI which assumes a comprehensive assessment with scores included across multiple domains, even though those domains might be duplicative when it comes to their impact on resource needs.

In contrast, an assessment designed to populate a branching classification (such as that illustrated above) is more targeted. The purpose of an assessment in a branching classification model is simply to capture those attributes that predict and explain the overall level of resources that a person needs. These 'cost drivers' are the variables that are included in the branching classification. Needs assessment for comprehensive care planning purposes is a separate process.

In considering options for the future in relation to internal versus independent assessment, the interface between the residential aged care sector and the broader health system is a key issue. The current ACFI assessment model requires assessors to specify *source materials* to support each rating they make, with clinical reports being accepted to provide supporting evidence. These reports may be provided by primary care providers (GPs, nurses, psychologists), acute care providers and subacute care providers such as palliative care services and geriatricians. However, clinical reports are not necessary for any ACFI question.

This raises a broader issue about the design of the assessment instrument itself and, specifically, whether the assessment is **rating what the person needs, or what they get**. As one example, the pain management item is rated based on what the resident receives (e.g. the frequency of therapeutic massage and interventions involving technical equipment) irrespective of whether these interventions are what the individual resident actually needs. It may be that an independent assessment of what a person needs, rather than an assessment by the care home of what a person receives, is a better model.

Given the importance of assessment-related issues, they are discussed further in Section 3.5 below.

The third key implementation issue relates to **incentives**. The issue of incentives is discussed in Section 3.6 below.

### 3.5 Assessment issues and options

Assessment is a key issue in any change to the aged care funding model. There are three aspects to assessment which we discuss here –assessment for **eligibility** for residential aged care; assessment for the **funding level** while in residential aged care; and **reassessment**.

Implicit in these three aspects is whether assessment is *internal* (done by the provider) or done by an *independent* entity. Before doing so, we briefly summarise the current model.

### 3.5.1 Overview of the current ACFI

The current Aged Care Funding Instrument (ACFI) assesses the needs of residents using twelve questions. Each question consists of one or more parts. The ACFI also includes two diagnostic sections. The twelve ACFI questions map to three ACFI domains as follows:

- **Activities of Daily Living (ADL)** consisting of ACFI questions on Nutrition, Mobility, Personal Hygiene, Toileting and Continence
- **Cognition and Behaviour (BEH)** consisting of ACFI questions on Cognitive Skills, Wandering, Verbal Behaviour, Physical Behaviour and Depression
- **Complex Health Care (CHC)** consisting of ACFI questions on Medication and Complex Health Care Procedures.

A person can only be admitted to a residential aged care facility after an independent assessment by an Aged Care Assessment Team (ACAT). The ACAT is external to the care home. Once in the care home, the ACFI is administered by the care home and this initial assessment results in the resident being classified on each domain to one of four levels of need – nil, low, medium or high need. There are protocols for reassessment if the resident has been admitted from hospital or if the person's care needs change.

The ACFI specifies the evidence that needs to be available to warrant specific ratings and assessors need to specify *source materials* to indicate which evidence source(s) support each rating. As one example, the ACFI has a question on 'Depression' where the care need is defined as 'depressive symptoms' that are rated as none, mild, moderate or severe. The ACFI appraisal evidence that can be used to support this rating is specified as either a Depression Assessment Summary, the Cornell Scale for Depression, the Depression Checklist or a diagnosis, with a clinical report being accepted to provide supporting evidence.

Copies of these source materials need to be stored as part of the 'ACFI Appraisal Pack' which may later be subject to audit by the Commonwealth. This Appraisal Pack is the completed record of the resident's ACFI appraisal or reappraisal including all the evidence specified for inclusion.

### 3.5.2 Assessment for eligibility for residential care

The key question in relation to the eligibility assessment for residential care is whether the eligibility assessment can be linked to the funding level for the resident.

Assessment for eligibility for residential aged care is a role of the Aged Care Assessment Team (ACAT), and from July 2015 the tool used by ACATs is the National Screening and Assessment Form (NSAF). My Aged Care, the Regional Assessment Services (RAS) and ACATs operate under the National Assessment Framework (NAF), which ensures a nationally consistent approach to assessing a person's needs and eligibility for government-funded aged care services.

A new residential aged care funding model should be consistent with the NAF, and should also consider ways in which the NSAF could be leveraged to streamline assessment processes and avoid duplication. In other words, is there a way that the ACAT comprehensive assessment

under the NAF can inform the design or implementation of a new funding model for residential care?

Despite the fact that ACATs conduct a comprehensive assessment across a number of domains that largely correspond to the domains assessed by the ACFI, the ACAT comprehensive assessment does not produce a 'score', as such, to indicate a 'level' of residential care that could be linked to a residential care funding band. The ACAT uses the comprehensive assessment as a guide to assist in the decision about the need for residential care versus other care types (including community care), as well as other individual client goals and care and management needs.

While there are potentially many advantages to using an ACAT assessment to determine the funding band in residential care, there are potential problems as well. These include:

- ACATs, while experienced in assessment, may not be experienced in understanding care needs in a residential setting;
- The person's level of dependency and care needs can change in the time between the ACAT assessment and admission into residential care;
- Care needs may be different between the person's home and residential care. For example, a person living with dementia may not experience challenging behaviours while in the home environment with a carer, but these may become apparent following admission into residential care.

In considering options for the future, one option is to maintain the overall design of the ACFI but to refine it. In this case, it does not seem feasible for the ACAT assessment to be translated into an ACFI funding level. This is because the ACFI is too cumbersome and is designed for completion after days to weeks of observation and interaction. The ACFI is not designed for independent administration.

Another option is a simplified funding system with four bands similar to home care packages, with or without supplements. If this approach were pursued, it would be possible for the ACAT to assess for these bands (as they do for home care packages) and also to approve the receipt of known care supplements for objective, high cost care items. Under this scenario there would need to be further work to examine the association between the ACAT's findings using the NSAF and the (simplified) residential care funding bands.

However, this does not address the problem of changing care needs between the ACAT assessment and admission into residential care, nor care needs that were not apparent at the ACAT assessment.

Another future option is to move from the current additive model to a branching classification model (similar to those used in casemix systems). In this case, the ACAT assessment could allocate a person to a casemix category, but perhaps only higher up in the branching system, still allowing fine tuning once a person is in care. How this would work in practice would depend on the design of the classification system adopted. The problem of changed care needs between ACAT assessment and admission remains.



In any model where the ACAT eligibility assessment is linked to the funding level, the ACAT would need to have clear guidelines from which to work. The input of the aged care sector into those guidelines would be paramount. Also, there would need to be an option for providers to seek a re-assessment from the ACAT should they feel that the assessment was not correct or that the person's care needs had changed.

### **3.5.3 Assessment for the funding level within residential care**

The exact nature of the assessment tool used to determine the level of funding will ultimately be determined by the funding model chosen. This initial discussion therefore does not focus on the assessment tool. Rather, we focus here on the advantages and disadvantages of internal versus independent assessment and highlight differences between potential funding models. Timing of the initial assessment is also discussed. The discussion assumes that the ACAT assessment for eligibility for residential care (discussed above) is not used to assess the funding level.

The main advantage of independent assessment is that it could be seen to be more transparent and objective, as it largely removes questions of gaming. A secondary advantage is that independent assessment will reduce the need for provider audit, thus creating savings elsewhere in the system.

There are also a number of negatives. Independent assessment places a greater burden on the system and potentially costs more than the current internal assessment model. While it could be argued that, as an assessment is still being done, then someone (i.e., the 'system') is paying for it (either the provider through use of staff time, or the government through the cost of the assessment agent). However, it is likely that, overall, independent assessment will add an element of duplication and increase overall assessment burden.

This is because the ACFI, even though a funding tool, still provides important information about residents that can be used in developing the care plan – although we do acknowledge stakeholder feedback that the extent to which the ACFI is used to inform care plans is variable.

Another potential negative of independent assessment is that the assessor may not possess as full an understanding of the resident's care needs as the provider, as the latter is able to observe the resident over a longer period of time, including nights.

As noted above, one option for the future is a small number of funding bands. These could be determined during the initial ACAT eligibility assessment, by an independent agent following admission into care, or by the provider following admission into care.

### **3.5.4 The approach to reassessment**

The approach to reassessment will also be an important part of a new funding model, given the progressive nature of most health conditions that residents admitted to aged care will experience. The current ACFI system allows for reassignment to a new funding level at any time if the person experiences a two category (or more) jump in ACFI score. Reassessment is also mandated at six months if the person is admitted from hospital or has hospital leave of greater than 28 days. Other than that, a voluntary reassessment can occur 12 months after the last ACFI assessment.

Apart from these situations, there is no protocol for reassessment (something that exists in most other countries). It appears that a decision was made during the ACFI funding design phase that reassessment would not be made mandatory. If a provider adopts a wellness approach, and the resident becomes more independent, there would be no need for a reassessment. This would create the right incentives.

However, there is a widespread perception among stakeholders that a reassessment is expected to be undertaken if a person's condition / functional abilities / behaviours improve (i.e. resulting in an improved ACFI score), because the funding level received should reflect current care needs. If a resident has improved on their ACFI, then this may be picked up in a random audit, with the onus being on the provider if they have not sought a reassessment.

A key decision for the future will be whether to adopt a standard protocol for reassessment and, if so, how to align this with desirable incentives. This issue is discussed further in the next section.

### 3.6 The need to align incentives

A key issue to consider in any funding model is the incentives that are created. These incentives may be positive or negative (i.e. carrots or sticks). It is also necessary to consider whether a funding model is likely to create incentives that are unintended. This section considers two issues that require careful attention to ensure that the right incentives are created. These two issues are not the only ones in which incentives need to be considered, however, they are key ones.

#### 3.6.1 Wellness, re-ablement, and restorative care within residential care

A number of terms are used to refer to approaches that seek to maximise a person's functioning, participation, and quality of life. These terms, which include 'wellness', 'enablement' and 're-ablement' are often used to describe both a philosophy of ongoing care provision, as well as targeted, time-limited interventions. Re-ablement and restorative care are often used interchangeably when describing time-limited interventions aimed at addressing functional decline, often after an event, such as a fall or fracture.

The CHSP Good Practice Guide (2015)<sup>1</sup> defines 'wellness', 're-ablement', and 'restorative care' in the context of the Commonwealth Home Support Program and it is sensible to align the terminology used throughout all aged care services, from entry level home care to residential care.

To briefly summarise the CHSP Good Practice Guide definitions:

**Wellness** is an approach to care that seeks to *build on the strengths, capacity and goals of an individual* in order to maximise their functioning and participation.

It should be seen as an overarching philosophy of care, and we suggest that this applies to the residential setting as well.

---

<sup>1</sup> Commonwealth Government Department of Social Services (June 2015) *Living well at home: CHSP Good Practice Guide* [Living well at home: CHSP Good Practice Guide](#). Accessed 21 November 2016

Maximising function and participation has a number of potential benefits for an individual across a range of wellness domains: physical health; cognitive; behavioural; emotional and social. Such an approach can also potentially lead to less future dependency and preventable comorbid medical conditions (for example: maintaining mobility for as long as possible can delay pressure areas and contractures and improve appetite, mood and behaviour; a secure environment that allows free movement can reduce anxiety and agitation; meaningful engagement can reduce feelings of isolation and depressive symptoms).

**Re-ablement** in the Good Practice Guide is defined as involving *targeted, time-limited interventions* that address *functional loss*, or that help the person *regain their confidence or capacity to resume activities*. As with the wellness approach, re-ablement is focused on helping the person maximise their function and participation.

**Restorative care**, according to the Good Practice Guide, also involves targeted and time-limited interventions that address functional decline, usually in the context of a *setback*, or to *avoid a preventable injury*. The main distinction between re-ablement and restorative care is that the latter generally involves *allied health* and *medical clinicians* in the program, whereas the former tends to focus on frontline staff. The new Short Term Restorative Care program, and the existing Transition Care Program, are examples of restorative care programs. Neither program targets people already in residential aged care.

### 3.6.2 Issues concerning wellness, re-ablement and restorative care

#### *Wellness as the care standard*

Engaging residents in meaningful activities and promoting participation and independence in an ongoing way (i.e., the wellness approach) should be regarded as the care standard for all residents in aged care settings who are likely to benefit. Provision of a wellness approach to care should be reflected in the Accreditation Standards. The requirement to meet the aged care standards, as well as market forces, should encourage providers to offer innovative wellness models as standard care.

Wellness needs to be considered in the development of the funding model not only because of the quality of life factors to be considered for residents, but also because a wellness approach is likely to result in reduced future care costs.

There are two main options for funding 'wellness'. One option is to build it into the baseline funding model. That is, wellness is a care standard that applies to all residents and to all homes and relevant standards of care are assumed within baseline payments. This approach recognises wellness as core business (not an add-on), minimises the need for re-assessment and also minimises opportunities for gaming.

The other approach is to consider wellness as a payment issue, in which specific payments (and payment rules) are built into the funding model on the assumption that the residential aged care sector needs financial incentives to provide care within a wellness framework.

Our view is that the funding model should assume that wellness is core business.

### **Episodic re-ablement / restorative care**

There are a number of scenarios when residents suffer illness or injury that results in functional decline that can potentially be reversed. Examples include: significant falls with musculoskeletal injury and/or fracture (not requiring hospitalisation), infectious diseases such as influenza, gastroenteritis or pneumonia that result in significant immobility and deconditioning and loss of functional reserve. Left unmanaged, functional decline after such a setback can result in greater long term dependency and higher care costs as well as reduced participation and quality of life for the resident.

The current aged care funding model has no provisions for a specific re-ablement/restorative care program to address potentially reversible functional decline.

While being beyond the scope of this review, consideration should be given in the longer term to the costs and benefits of developing a model for a targeted, time limited, restorative care program in residential care (i.e., *Short Term Restorative Care in Residential Care*).

If such an approach were pursued, assessment for a short term restorative care program in residential care would need to be external and based on sound, objective criteria. An external assessment is consistent with the Transition Care Program and the Short Term Restorative Care Program. Providers of restorative care programs would need to be accredited.

Program providers could include those who are also providing the residential care as long as assessment was at arm's length.

Benefits of restorative care in residential care programs may also extend beyond the aged care sector. For example, residents with a diagnosis of dementia who have required hospitalisation following illness or injury may receive better care back in their secure, familiar, residential aged care setting with a restorative care program brought to them, rather than remain too long in hospital environments poorly equipped to provide quality, person-centred care.

*In summary*, irrespective of the detail, the aged care funding model should promote and accommodate a wellness approach to care for people who will benefit, to improve participation and quality of life and potentially reduce future care costs. However, this does not need to be by way of incentive payments.

In the longer-term, consideration needs also to be given to how to provide targeted, time-limited re-ablement and restorative care programs to residents after a setback.

#### **3.6.3 Behavioural and psychological symptoms**

Many of the issues above that apply in relation to wellness also apply to how residents with challenging behaviours and with psychological problems are dealt with in a future funding model.

Consistent with the approach adopted in other countries, the current ACFI assessment includes a behavioural assessment. However, the definition of 'behaviour' varies between countries.

The current ACFI includes five 'behaviour' items - cognitive skills, wandering, verbal behaviour, physical behaviour and depression. *Wandering, verbal and physical behaviour* are clearly

aspects of 'behaviour'. But this is not the case with either *cognitive skills* or *depression*, neither of which would typically be defined as aspects of behaviour in other countries. Cognition skills may be better accounted for in the Activity of Daily Living domain, while depression should be included in the Complex Health Care domain and not in the behaviour domain. In this context, depression should be classified in the same way as diabetes.

There is now a strong and growing evidence base on best practice management regarding challenging behaviours. To summarise:

- Good physical design and staff expertise have been shown to positively influence the behavioural and psychological symptoms of dementia and other health conditions;
- Delivering a person-centred model of care which is tailored to the needs and preferences of the individual;
- An environment that allows free movement can reduce anxiety and agitation;
- Meaningful engagement can reduce feelings of isolation and help to counteract depressive symptoms;
- Good pain management can reduce verbal and physical aggression (as well as help sleep and depression and foster greater mobility), and
- Staff skills and attributes, clinical leadership, policies and processes that supports the delivery of individualised care.

Given this, there is an important question about how the behaviour domain is addressed within a future funding model. As with 'wellness', there are two main options. One option is to build good behaviour management into the baseline funding model. That is, a well-designed environment, meaningful engagement and good pain management are care standards that apply to all residents and to all homes and relevant standards of care are assumed within baseline payments. This approach recognises that behaviour management is core business (not an add-on). This, in turn, minimises the need for assessment and also minimises opportunities for gaming.

The other approach is to consider behaviour as a payment issue, in which specific payments (and payment rules) are built into the funding model. Treatment as a payment issue is on the basis either:

- that residents who are admitted with challenging behaviours are necessarily more costly and that these costs are beyond the control of the home, and/or
- that the residential aged care sector needs financial incentives to accept residents with challenging behaviours and need ongoing financial incentives to best support those residents.

Our view is that the core of the funding model should assume that a well-designed environment, meaningful engagement and good pain management are care standards that apply to all residents and to all homes and that relevant standards of care should be assumed within baseline payments.

That said, there is also evidence that a small percentage of people have health conditions that result in them exhibiting challenging behaviours irrespective of the standard of care they receive or their physical environment. In these cases, additional resources are required.

Rather than building payments for behaviour into the core funding model, a different approach whereby a behavioural supplement is paid only in exceptional circumstances, and only after independent assessment, would be more appropriate.

Irrespective of the final payment model, our clear view is that ‘behaviour’ needs to be better defined in any future assessment system (whether this is a modified ACFI or a different assessment system) and be limited to physical behaviour, verbal behaviour and wandering. Cognition and depression should not be dealt with as behavioural issues.

### 3.7 Audit systems

In this discussion we use the term ‘audit’ in its broadest sense to describe all of the systems that the Commonwealth has in place to ensure that subsidies are only paid when they are justified. This includes, but is not limited to, analysis of routine data, site visits and spot audits and covers both the review of initial claims and subsequent reassessments.

In considering options for the future it is important to determine whether current audit arrangements are adequate and suitable for any proposed new system. A key issue is whether the auditing system should focus on ACFI documentation or move to an audit model whereby the resident’s care plan is the key source of evidence about their needs and the services they are receiving.

## 4 Detailed outline of options for the future funding approaches

This section presents five options for the future development of the ACFI system. An outline of each option is provided rather than a detailed analysis of each option. The section that follows (Section 5, page 37) identifies the explicit criteria against which these options should be evaluated and applies those criteria to each of these options. Sections 6 (page 39) and 7 (page 48) then set out the recommended option and a high level methodology to achieve it.

In considering these options, it should be noted that they are not necessarily mutually exclusive and it is possible that favoured components of one model may be able to be incorporated into the option that is preferred overall. For example Option One, which is to refine the current ACFI model, may be considered as a short term interim step pending the development and implementation of a preferred option that requires a longer implementation timeframe.

There are also a number of activities that we recommend to be undertaken regardless of the option selected. For example, the selection of more appropriate care need assessment tools may be independent of the classification and funding approach selected and a costing study will inform the cost relativities between different care-needs groupings in any of the funding model options. These activities are identified in the recommended approach outlined in Section 6. Further information regarding the processes and resources involved in a costing study is provided in Appendix Six.

### 4.1 Option One: refinement of the current ACFI model

Option One is to retain the current overall design of the ACFI funding model but to refine the detail. It is anticipated that the development and implementation of this option would be a 6-12 month project depending on the decision to recalibrate pricing based on a costing study. If this option were adopted, further analysis and consultation would be required to identify and develop the necessary refinements. Following is an outline of the features of Option One and the requirements for implementation.

#### 4.1.1 Classification system and assessment tools

In this option the overall structure and design of the current ACFI would be retained. That is, there would be a comprehensive assessment across several domains (currently Activities of Daily Living; Behaviour; and Complex Health Care) with specifications about the necessary evidence to support each rating.

The classification system would remain as an additive model in which scores on the ACFI are added together across multiple domains (i.e. the higher the score, the higher the funding band). In this additive model, each domain stands alone with the overall banding based on the combination of high, medium and low scores within each domain.

Within this overall classification structure, there is potential for refinement in several areas. The following potential refinements are indicative only at this stage:

- Rationalisation of the ACFI items with the removal of redundant items. The potential for rationalisation was identified in our preliminary analysis of ACFI data (see Appendix Three).



For example, the majority of conditions in the Complex Health Care domain were found to be relevant for only a very small number of residents. Of the 17 conditions in that domain, seven are rated 'yes' for less than 1% of residents and a further 6 are relevant for only 1%-5% of residents. Only three conditions (pain, skin and oedema) are relevant for more than 10% of residents. Our analysis of the retrospective data provided by the DoH suggests that many items are redundant and some items can be used as proxies for others.

- A review of the evidence required to justify each rating and a clear link to the resident's Care Plan. The purpose would be to bring the assessment for funding into line with contemporary best practice. One example is that the current assessment evidence relating to the pain management items is widely regarded as outdated and inconsistent with good practice.
- Given the evidence on best practice behaviour management (see Section 3.6.3), there is an important question about whether the behaviour domain should remain within the ACFI and, if so, how. Option One assumes that this domain remains in the ACFI, at least in the short-term. However, it would include moving the questions on cognition and depression to the ADL and Complex Health Care domains respectively.

#### 4.1.2 Pricing model

Under Option One, the pricing model would remain unchanged. However, the price relativities between the funding bands, which were originally determined by mapping from the previous Resident Classification System, may be adjusted based on the changes to the tool.

The supplementary payments that exist under the current model will also be retained.

#### 4.1.3 Implementation, workforce and transition considerations

Current infrastructure arrangements would be retained under Option One with no changes to the assessment workforce or information systems required. The minor changes to the ACFI that would be delivered by the refinement may require some limited education or re-orientation but this could be addressed through the development of some supportive documentation.

The current ACFI assessment is designed for internal use within a care home and for completion over a period of days to weeks and, although some modifications to the tool would be made, the requirement for internal assessment would not change. The fundamental design of the ACFI will not change and it will remain unsuitable for use by an independent assessor.

It is anticipated that the refinement of the ACFI may be undertaken in a six month project. However, to ensure that a refined version would perform adequately for several years (or during transition to the final recommended model) a 12 month development project that includes the recalibration of pricing based on a costing study would be the preferred approach for Option One.

Under the current arrangements using ACFI, there is no standard protocol for reassessment other than for those residents transferring from hospitals. This would be retained under Option One on the basis that this gives an incentive for the care home to improve the physical function and engagement of its residents.



#### 4.1.4 Audit and validation

There is a well-established audit system in place which involves both statistical analysis and file audits of a subset of resident records each year. The existing audit processes and workforce would need to be retained. The key issue in relation to file audits is that the focus is on the ACFI documentation and the purpose is to ensure compliance with the ACFI documentation requirements.

An alternative audit model would involve a reconciliation of the ACFI assessment with the resident's Care Plan. Under such a model, a claim is considered justifiable if there is evidence in the Care Plan of both the needs of the resident and the action that the home is undertaking to meet those needs.

#### 4.1.5 Overall assessment of Option One

The various budget initiatives in recent years essentially reflect Option One. There are a number of potential refinements that could improve the overall model. However, a simple additive model will never result in an equitable funding distribution. Further, while the design of the current ACFI model is simple, it is administratively burdensome and does not align well with cost drivers or fairly manage financial risks.

While Option One offers the advantage of continuity with no significant impact on workforce or infrastructure, it falls well short of achieving the certainty in subsidy payments required by both funder and providers and does not reflect the true drivers of cost in aged care. There are better options.

### 4.2 Option Two: a simplified model with four funding levels

Option Two is a simplified "consumer directed care" model with only four funding levels or bands that map to the four funding levels that currently exist for home care packages. In this model prices would need to reflect the cost of residential care. This option would involve a 12 month project if pricing is to be informed by a costing study, however, the establishment of the four payment levels may be achieved within six months.

#### 4.2.1 Classification system and assessment tools

The purpose of assessment under Option Two is to assign a resident to one of only four funding levels. As such, it is unnecessary to collect the level of detail included in the current ACFI. Instead, this approach would involve an independent assessor (this could be an ACAT initially but not necessarily for ongoing assessments) making a professional judgement about which of the four funding levels is appropriate for each resident. As with the current approach to approvals for home care packages, there would be guidelines for assessors, but not a prescribed model.

Each resident would initially be assigned to one of four funding levels, each of which has a specified payment rate. The initial allocation to a funding level would be determined by the ACAT as part of the initial approval process. If the needs of the resident change the care home would apply for a new independent assessment. Ongoing assessments may be also undertaken by ACAT or another independent agent. Rules for reassessment would need to be determined.

#### 4.2.2 Pricing model

Initial pricing could be determined by modelling from current ACFI data with a view to maintaining current overall expenditure levels. The relativities between the four levels could be determined either by expert judgement or by a costing study. Supplementary payments would not continue with the subsidies relating to these conditions incorporated into each of the four levels, as an averaged allocation.

#### 4.2.3 Implementation, workforce and transition considerations

Option Two moves the system from internal to independent assessment. There are significant impacts in this in terms of resourcing independent assessment in terms of staffing, training and funding. This would take time and resources to implement.

There are, however, no complex infrastructure implications with the collection of assessment data only relating to four funding levels and without explicit linkage to the Care Plan required.

Subject to workforce and contracting issues, this model could be implemented within six to twelve months. The four payment levels could be established based on ACFI data with a notional realignment of the current ACFI payments into the four groups.

The payment levels for the groups may be informed by a costing study. However, this would prolong the implementation timeframe and incur additional cost for very little benefit with only four payment levels to be determined.

#### 4.2.4 Audit and validation

With independent assessment the current audit and validation systems would become largely unnecessary. There would be the potential to channel these resources into additional investments in independent assessment services.

#### 4.2.5 Overall assessment of Option Two

The major advantage of this model is that it aligns with the current approach to home care packages as well as aligning with the broader policy agenda. The introduction of independent assessments removes some of the incentives for gaming and need for audit. This option would also be simple to implement.

The major disadvantage, however, is financial risk which would be considered unacceptable in light of the key considerations of stability and certainty in funding. If there are only a few funding levels (in this case, four) the needs of residents in each group will be necessarily very diverse. When one price is paid for a heterogeneous consumer group, and when the funding differences between levels represent a quantum shift rather than reflecting incremental differences in care need, financial risks are created for both funders and providers. With the requirement for only minimal assessment evidence, neither the funder nor the provider has the necessary information to manage their financial risks.

While this option is superficially attractive, this option increases financial risks without achieving improvements in the equitable distribution of funds. It results in significant heterogeneity within funding levels and a failure to align funding with cost drivers.

### 4.3 Option Three: Option Two plus supplements subject to external assessment

Option Three is a variant of Option Two. The core is a simplified model with only a few levels or bands. However, there would also be the ability to attract special supplements if specified criteria are met. These might include, for example, a time-limited payment for end of life care or ongoing payments for the management of complex conditions (such as, for example, PEG feeding, chronic wound management, syringe drivers, tracheostomy and dialysis). A supplement could also be considered in exceptional circumstances for challenging behaviours. Each supplement would require external assessment but not necessarily by an ACAT. Supplements could also require a documented care plan and the reporting of outcomes on each resident. As per the previous option this would involve a six to 12 month development and implementation project.

#### 4.3.1 Classification system and assessment tools

The core of this option is the same as Option Two above. In relation to supplementary payments, a list of supplementary payments would be agreed along with the assessment requirements for each supplement. Some supplementary payments, and the assessments that underpin them, would be time-limited while others could be ongoing.

#### 4.3.2 Pricing model

Initial pricing could be determined by modelling from current ACFI data with a view to maintaining current expenditure levels. The relativities between the four levels and the payments relating to supplements, could be determined by expert judgement or by a costing study.

#### 4.3.3 Implementation, workforce and transition considerations

Implementation of this option is the same as Option Two with the addition of supplementary assessments and payments. Each supplement would require external assessment by a specialist assessor. Supplements would not be assessed by an ACAT. This would require the development and engagement of a national network of specialist assessors with the potential need for a national workforce development strategy.

#### 4.3.4 Audit and validation

As with Option Two, the audit of assessments would be largely unnecessary. The determination of eligibility for supplements, however, could require a documented care plan and the reporting of outcomes on each resident.

#### 4.3.5 Overall assessment of Option Three

The major advantage of this model is that it aligns with the current approach to home care packages as well aligning with the broader policy agenda. Relative to Option Two, financial risks to providers are reduced under Option Three, at least in the short-term.

In relation to disadvantages, a review of budget initiatives in recent years demonstrates that supplementary payment arrangements can be changed at short notice, which can lead to considerable uncertainty. A further issue is that supplementary arrangements in funding models create the incentive to shift the focus from how to use the core payment to best meet

the needs of the resident to a focus on the issues covered by supplements. There may be a good case for supplements in some situations. But supplements should be designed to be the exception rather than the rule.

#### **4.4 Option Four: an Activity Based Funding model with a branching classification.**

Option Four builds on the experience of the national ABF model and applies the elements of that model that are relevant for residential aged care. It includes the development of an aged care Weighted Activity Unit (WAU) and the determination of a National Efficient Price (NEP) for residential aged care. Options within this include per diem or per month payments, incentive payments, WAU modifiers to recognise legitimate additional costs. These additional costs may be related to characteristics of consumers or the service profile or geographic location of a facility. Section 3.7 and Appendix Five summarise the national public hospital ABF model and the lessons that have been learned from that experience

An ABF system similar to the national model would require regular updates of the classification, and costing studies that would inform the price and the setting of WAUs.

This option may include the continuation of internal assessments (where the assessment is tied to the resident's care plan) or independent assessment. This would be dependent on the assessment tools selected. The implementation program would be undertaken over a two to three year period with a possibility of Option One being implemented in the interim.

##### **4.4.1 Classification system and assessment tools**

Appendix Five sets out more information about ABF classifications and how they can be developed including relevant examples.

There is a widespread and incorrect perception in the aged care sector that the only ABF system is the Diagnosis Related Group (DRG) system used to fund acute care. A casemix (literally, the mix of 'cases') classification is based on those attributes of consumers that best explain (predict) the cost of the care and services they need. These variables are known as 'cost drivers'. In the context of residential aged care, a casemix classification would be a branching classification with classes defined by the consumer-related variables that drive care needs (and therefore costs) in aged care.

The assessment variables required to inform the classification would focus on capturing these cost drivers and they would be identified as part of the classification development process. The international evidence (see Appendix Four) confirms that the domains already included in the ACFI are likely to be included in an assessment that captures cost drivers for residents. However, it is highly unlikely that any assessment for ABF purposes would require the detail captured in the ACFI. It would thus be amenable to either internal or independent assessment.

Unlike the additive design of the current ACFI, the recommended approach would be to develop a branching classification. This type of model accounts for the total cost of care delivery and creates splits (or branches) within a group of residents only when a particular characteristic is found to explain significant differences in cost between members of that group.

The difference is best illustrated by example. Suppose a resident had high activities of daily living (ADL) needs as well as high Complex Health Care needs. The current ACFI calculates separate payments for each domain and then adds them together. A branching model is more sophisticated than this as it looks at needs in combination and recognises interactions between them rather than one at a time. This idea was illustrated previously in Figure 2 ([Section 3.3](#)).

#### 4.4.2 Pricing model

Under this option, there is an ABF or casemix classification and a unit of relative costliness (a 'Weighted Activity Unit' or WAU) for each class in the classification. There is an annual determination of a National Efficient Price (NEP) that is paid for each WAU. The subsidy paid is therefore the total WAU for a facility multiplied by the NEP. There is an explicit policy on the relationship between cost and price (currently missing in the ACFI model) with price being set by reference to the cost of an efficient provider (plus a reasonable return on investment).

Per diem or per month payments may be determined; and incentive payments and adjustments to account for legitimate additional costs as discussed above may be achieved by modifying the WAU for specified reasons. As an example of WAU modifiers, the pricing model adopted by the Independent Hospital Pricing Authority for subacute care makes provision to increase the national (N)WAU (and therefore the price) by additional weightings for Indigenous status and remoteness. More detail can be found on the IHPA website<sup>2</sup> and in Appendix Five.

#### 4.4.3 Implementation, workforce and transition considerations,

Option Four is the adoption of an ABF system as a total system and not individual elements. This means that the per diem or monthly subsidy that each resident attracts to the facility would be based on the full average cost of providing care. The elements of this type of system are presented graphically in Figure 12 in Appendix Five.

This option would involve significant implementation considerations including a work program covering a two year development project following by a further two to three year implementation plan including a strategy for transition to the new funding model.

If the current model of internal assessment is retained using assessment tools that are in common use in the aged care sector then the workforce implications for this option are minimal. However, if independent assessment is preferred then the workforce implications would be similar to Options Two and Three. While, with independent assessment, some resources in care homes will be freed up, aged care homes will still need to do their own internal assessment for care planning purposes. The net effect is that independent assessment will largely represent an additional system cost. At least some of this additional cost can expect to be offset by reduced audit and compliance costs.

There are likely to be shortages of external assessors in rural and remote areas. One option may be that RACF clinical staff may be accredited as independent assessors for other organisations. It is also possible that the use of tele-health may assist in these assessments. These options will need to be explored during the detailed design phase.

---

<sup>2</sup> [Independent Hospital Pricing Authority publication on National Pricing Model Technical Specifications 2016–17](#)

Importantly, this Option requires the capacity for the system to undertake regular costing studies within the aged care sector across a range of provider types and sizes. This costing may be undertaken by external agencies or in-house, however, participating services will need to be able generate financial expenses and client level activity data to support costing. This need not require the implementation of specialised costing software but will require some education of key staff.

#### **4.4.4 Audit and validation**

A key advantage of ABF systems is that they become self-regulating. This is because the costs in any one year inform prices in a subsequent year.

If internal assessment is retained, this option may require some review of assessments. However, it is expected that a system using a branching classification rather than additive components and regular costing studies would be much less exposed to gaming.

#### **4.4.5 Overall assessment of Option Four**

The major advantages of this system are that the relationship between cost and price can be articulated and that the system becomes self-regulating. It is much more sophisticated than the current ACFI model and, once fully established, ABF systems are both efficient and transparent.

The major disadvantage of this option is that this model represents a significant change for the aged care sector and it would take some time to develop and establish. For this reason, this option is best considered as a longer-term option with Option One potentially adopted in the transition period.

A further issue with this option is that it assumes that care costs are all variable. This is clearly not the case. Aged care facilities have both fixed and variable care costs. This needs to be recognised in future funding models to ensure the sustainability of small facilities.

### **4.5 Option Five: a blended payment model.**

This option recognises that a significant proportion of the cost of care in a residential facility is fixed (at least within a defined period) and determined by the number (and not the complexity) of residents in care. The remaining costs are variable based on the needs (complexity) of each individual.

The Option Five payment model has two elements. Standard per diem ('fixed') payments cover the costs of ensuring capacity and providing the care that all residents receive equally. For example, the costs of a night supervisor are fixed and are determined by the overall number of residents rather than the needs of a specific resident. If there is a small increase or decrease in the number of residents from one night to the next, overall night supervision costs do not change. This is why they are referred to as 'fixed' costs.

The variable payment covers the costs of individualised care for residents. This would relate to the tailored care received by residents with a greater need for assistance with activities of daily living and clinical support. The variable payment may also include costs of social activities and outings that only some residents are well enough to engage in. The variable (individualised)

payment is based on Option Four above. That is, there is a classification system with WAUs reflecting the differences in care need between the classes and a variable (marginal) NEP.

#### **4.5.1 Classification system and assessment tools**

The assessment tools and classification system that would be used in this option are as per Option Four.

#### **4.5.2 Pricing model**

Both the fixed and variable prices under this model would best be determined by a costing study in which component of costs that relate to services provided to all residents versus the relative costs of care provided to residents in different care need groupings would be identified.

Aged care homes would receive a per diem fixed cost care payment for each day a resident is in care. This payment may be standard across Australia. Alternatively, there could be different rates in circumstances where it can be demonstrated that there are legitimate cost differences in different locations. For example, there could be different rates based on geographic location or other factors.

The aged care home would receive, in addition, a per diem variable care payment for each day that a resident is in care. This variable payment is based on the ABF class to which they are assigned.

#### **4.5.3 Implementation, workforce and transition considerations**

The implementation considerations for this option are very similar to those in Option Four. The blended payment model with the variable component informed by a casemix classification represents considerable change and it will be critical that there be a comprehensive stakeholder engagement and education strategy.

As per Option Four, modifications may need to be made to information systems to capture the level of data required for classification and costing and accommodate new payment systems. However, these modifications should represent the capture and use of data that will become standard practice for aged care facilities in the future. The information systems may also support the analysis and sharing of clinical data for future possible developments such as in restorative care.

As per Option Four, the workforce implications are likely to be considerable if the decision is taken to move to independent assessment. This includes the capacity to resource the independent assessment functions. This issue will need to be worked through during the detailed design phase.

As the evidence base on the provision of aged care services develops, mechanisms will need to be implemented to ensure the fidelity of the system and to ensure that the system is consistent with contemporary evidence on good practice. An ongoing research and development strategy will need to be considered to monitor the evidence base and to consider the potential for progressive refinement of the funding system.



#### 4.5.4 Audit and validation

The systems for audit and validation required for this option are as per Option Four.

#### 4.5.5 Overall assessment of Option Five

The major advantage of this option is that it recognises the cost structure of aged care homes – that is, that a significant proportion of the care costs in a residential home are fixed and determined by the number (and not the complexity) of residents in care. Incorporating this into the baseline funding model reduces financial risk and increases certainty for both Government and providers.

This model also incorporates into the variable payment the specific resident characteristics that drive differences in care need and therefore differences in cost. It also enables these cost drivers to be seen as interactive rather than operating in isolation.

The major disadvantage of this option is that, at least initially, it may be perceived as too complex for the aged care sector. Our assessment is that this option is the most conceptually sophisticated of the options and that it represents a considerable change for the sector and for the Department.

However, conceptual sophistication needs to be distinguished from administrative complexity. Once established, ABF models are administratively simple, straightforward and self-regulating and require IT systems that can be made public domain and /or brought ‘off the shelf’. In contrast, the current ACFI system is conceptually straightforward but time—consuming and expensive to administer.



## 5 Evaluation of the options for the future

As noted previously, the brief set out three key design considerations, namely:

- That the model is able to be integrated with existing Australian aged care client pathways and system structures i.e. Gateway (My Aged Care),
- How incentives for maintenance or re-ablement of health status/function of recipients may be built into future funding arrangements,
- Interface with the broader health system.

These key design considerations formed the starting point in considering the options with additional criteria added as the project evolved. The important features of a new system that were considered important by stakeholder are also outlined in Appendix Three. The final set of criteria are summarised in Table 3 below along with a summary of how each option performs against each criterion.

The elements required to meet some criteria are clearer than others and some can be equally met in every option depending on detailed design. For example, the criterion about 'integration' can be achieved under any option except, perhaps, the option of refining the current ACFI system. The same applies to the criterion 'incentives for maintenance and re-ablement'. Each model can be designed to create these or other incentives.

The implementation considerations vary significantly with each option. At the extremes of this variation in implementation timeframes Option One, in its simplest form, could be implemented within six months whereas Option Five would involve a two year development period followed by a two to three year implementation and transition period. For this reason, the options are not mutually exclusive. Option One should be adopted under any scenario, either as an endpoint or as an interim measure, while work proceeds to develop one of the other options for longer term implementation.

Option Five is the preferred approach as it is the most robust model and achieves greater equity. Once implemented, it provides greater certainty for both government and providers. However, this option represents significant change and considerable stakeholder engagement and education would be required throughout both the design and early implementation periods. Given that it represents considerable change, a staged approach to implementation would be required. This staged approach is set out in Section 6.

Irrespective of the preferred option, we believe that there is a good case for better understanding costs. Costs do not need to be understood to be contained. But costs do need to be understood to be contained in sensible ways. The national hospital funding model is based on a National Efficient Price (NEP), which is informed by an annual hospital costing study (now in its twentieth year). A similar approach should be considered for the aged care sector.

**Table 3 Criteria for evaluating the five options**

Criterion	Option One (Refined current ACFI)	Option Two (Simplified model similar to Home Care Package)	Option Three (Option two plus supplements)	Option Four (ABF with casemix classification)	Option Five (Blended model with fixed and variable payments)
Integration with pathways & structures	Depends on assessment system	Depends on assessment system	Depends on assessment system	Depends on assessment system	Depends on assessment system
Certainty for government	*	*	***	****	*****
Certainty for providers	***	**	***	**** <sup>1</sup>	***** <sup>1</sup>
Adequacy of price for providers	Depends on price and efficiency of provider	Depends on price and efficiency of provider	Depends on price and efficiency of provider	Depends on price and efficiency of provider	Depends on price and efficiency of provider
Equity	**	*	**	****	****
Alignment with aged care cost drivers	**	*	***	****	****
Incentives for maintenance and re-ablement	Depends on reassessment policy	Depends on reassessment policy	Depends on reassessment policy	Depends on reassessment policy	Depends on reassessment policy
Interface with the broader health system	Depends on assessment system	Depends on assessment system	Depends on assessment system	Depends on assessment system	Depends on assessment system
Incentives for innovation & efficiency	**	**	**	***	***
Continuity between home & residential care	*	*****	***	*	*
Operational efficiency	*	****	**	***	****
Robustness	*	*	**	****	*****
Suitability for use under external assessment arrangements	**	*****	*****	*****	*****
Implementation and transition considerations	***	***	**	**	**

<sup>1</sup> Certainty for providers is rated as two stars during the establishment period rising to four with full implementation.

## 6 The recommended staged approach to residential aged care funding reform

It is recommended that funding reform be achieved through a staged process over two years with ongoing maintenance and refinement of the system thereafter. This recommended approach includes the short term refinement of the ACFI as per Option One (outlined in Section 4.1) along with the longer term implementation of Option Five including fixed and variable payments and a branching classification system (outlined in Section 4.5).

This section outlines the stages of development and the key features of our recommended approach. A more detailed outline of the activities, resources and timeframes associated with a costing and classification study (a critical step in the process) is provided in the next section (Section 7).

### 6.1 Stage 1 – Refine the current ACFI based on expert advice

This stage is estimated to take approximately six months during which foundation activities for funding reform will be undertaken. This will include a clinical review of the ACFI leading to modifications to its design. Concurrently, a stakeholder engagement strategy will be developed and commenced and an assessment of existing infrastructure and capacity will be undertaken.

At the end of this six month period an improved version of the ACFI will be available for implementation. This refined ACFI should better address the current issues including the perceived disconnect between the ACFI and the resident's care plan, perverse incentives and the complexity of the current assessment process.

The pricing structure for the refined ACFI at the end of Stage 1 will be based on ACFI data analysis and expert opinion.

#### 6.1.1 Stage 1 project deliverables

##### *Classification*

A refined ACFI **assessment** system is the main deliverable in Stage 1. The ACFI refinement activities will include:

- Identifying and removing redundant items within the tool;
  - This includes items that do not contribute to the resident's rating in each domain
- Adjusting where items belong within domains;
  - For example, the cognition and depression items currently within the behaviour domain need to be moved into the ADL and CHC domains respectively and domain scores recalibrated.
- Recalibrating the instrument following the removal of redundant items, and
- Updating the evidence required to justify each rating.

These design changes would be implemented immediately. This work will also inform the selection and/or development of a suitable assessment tool for subsequent use in the proposed branching classification.

### **Pricing**

The subsidies attached to levels within the refined ACFI will be recalibrated based on changes made to the tool, but will be based on the existing payment structure and amounts. For example, with the movement of the cognition item to the ADL domain, an associated amount of subsidy will also need to be moved to the ADL domain.

Early evidence of actual costs that arise from the costing process, running in parallel with this stage, may be able to be used in the recalibration the prices in the refined ACFI.

### **Implementation**

The key implementation (change management) strategy in Stage 1 will be the engagement of stakeholders. The changes made to the ACFI will be modelled for the system and different types of facilities based on historical data so that there are no surprises when the changes are released into the sector.

The refined ACFI will be introduced as a modified tool with some materials prepared to assist with orientation to the changes. There will be no infrastructure, education or workforce implications associated with this modest level of change.

### **Regulatory systems (audit)**

No changes will be made to the current audit process for the ACFI assessment, although it is anticipated that audits will be less burdensome with fewer items and a greater evidence base for assessment under the refined ACFI.

#### **6.1.2 Stage 1 stakeholder engagement**

Funder, provider and clinician stakeholders will be engaged during Stage 1 in relation to refinement of the ACFI tool. The identification and selection of appropriate residential aged care assessment tools for use in subsequent stages of this work program will also begin at this stage. An expert clinical reference group will be established for this purpose.

Communication and discussions with stakeholder groups will involve both the current short terms changes and establishing the platform for the coming reforms including the development of a branching classification and the preparation of systems to undertake costing studies.

Modelling of ACFI changes to be introduced at the end of Stage 1 and the release of those results will be an important part of the change management strategy. This will aim to ensure engagement and support for the more significant changes to come.

#### **6.2 Stage 2 - Undertake a costing and classification study**

It is anticipated that this costing and classification study will be completed over an 18 month period with the first six months of work being undertaken concurrently with the ACFI refinement in Stage 1. This stage does not deliver any changes to the ACFI-based funding system but provides the evidence and basis for the changes that will be introduced in Stages 3 and 4.

### 6.2.1 Stage 2 project deliverables

The costing and classification study will involve the engagement of a stratified sample of aged care facilities in a study that involves a one month collection of cost, service utilisation and clinical assessment for each facility. The data collection process may be staggered over several months. The results of the costing and classification study will inform:

- The specific expenses that relate to the scope of services funded by the Commonwealth;
- The fixed and variable components of the cost that will be incorporated into the funding approach in the subsequent Stages 3 and 4, and the facility related factors that drive fixed costs;
- The design of a branching classification that forms the basis of an Activity Based Funding model for implementation in Stage 4;
- The additional costs incurred during the adjustment period after residents first enter care;
- The detailed design of the funding system including the price, the cost weights for different classes, and the proposed adjustment payment, and
- The specification of IT requirements in the residential aged care sector to support changes in Stages 3 and 4.

#### *Classification*

One of the earliest tasks to be finalised in this stage will be the selection and/or development of the assessment tools that will be used to capture the resident characteristics for the costing study. The review of the current use of assessment tools and stakeholder discussions that are undertaken as part of the ACFI refinement in Stage 1 will inform this.

A **branching classification** will be the key deliverable of this stage and this is required to populate the variable component of the funding model in the subsequent stages. This branching classification will use variables captured using the new resident assessment instrument along with other routinely available demographic data.

The development of this branching classification system will be informed by clinical expert consultations and the results of the costing study. The factors that drive costs will be identified through statistical regression analysis of the cost data and will inform the splits at each of the branching nodes.

Based on the international evidence, the core variables will be care needs in relation to activities of daily living and complex health care. A small number of additional splits in the branching classification may be used to account for extraordinary circumstances such as the requirement for oxygen or severe behavioural issues. Eligibility for assignment to these higher cost classes would be subject to an independent assessment by an authorised independent assessment specialist.

#### *Pricing and Funding*

No changes to the pricing and funding will be implemented during the Stage 2 development period. Rather, the costing and classification study will inform pricing and funding system adjustments to be introduced in Stages 3 and 4.

### 6.2.2 Stage 2 stakeholder engagement

This stage (which overlaps with Stage 1) will involve significant clinical engagement in the selection and/or development of assessment tools. This will involve formalised consultations with expert panels and peak bodies within the aged care sector.

Sector-wide education and change management will be essential during Stage 2. This should focus on ensuring adequate understanding of the system design and incentive systems.

The effective engagement and education of staff in participating sites is critical during this stage to support the required data collection. Resident specific assessment and service provision data and finance data extracts are required for both the initial costing study and the development of the residential aged care classification system.

### 6.3 Stage 3 – Model and test a fixed and variable payment model

This stage is estimated to take approximately six months following the completion of the costing and classification study. During this stage some new tools and approaches that are to be included in the final model will be introduced for modelling and testing. The purpose of this is to prepare the sector for the most significant changes associated with the fully implemented model and enable providers and government to assess the impact of these changes on workforce and funding.

The new assessment tools that were selected during Stages 1 and 2 will be progressively introduced from Stage 3. A decision on the future of assessment will be critical during this stage. This includes a consideration of whether to maintain the current system, move to independent assessment of resident care needs or move to a mix of both modalities. It is possible that decisions made about initial assessment will differ from those made about reassessments after the resident is in care. It also includes a consideration of whether there should be a standard reassessment protocol. These issues are discussed further in Section 6.4.3 below.

These changes may have significant workforce and resourcing implications so it is recommended that they be introduced ahead of the full implementation of the ABF model to enable adjustment to the new system and to provide an opportunity to review and assess its impacts. An education program will be delivered to support the introduction of changes along with detailed, provider specific analysis of resident assessments using the new tools. The nature of the education will depend on the decision/s regarding internal or independent assessment.

It is also recommended that, during this stage of the project, modelled analysis indicating the likely impact of the introduction of fixed and variable payments be provided to aged care provider and government stakeholders to review. This provision of analysed results should also be accompanied by a relevant program of education.

The fixed and variable proportions used in the data modelling will be informed by the costing study undertaken in Stage 2.

Funding for residential aged care will continue to be based on the refined ACFI tool at this time. During this period of modelling, testing and education no actual changes to the funding system will be introduced.

### 6.3.1 Stage 3 project deliverables

#### *Classification*

Implementation of the assessment tools that were selected in Stage 2 will be finalised during this stage. This includes implementation of final decisions regarding internal versus independent assessment.

During this stage, the sources of all data items to be used in the classification will be defined and standardised.

#### *Funding model*

The fixed and variable payment model will be developed and data analysis will be undertaken for modelling and testing involving government and residential aged care providers. It is anticipated that the costing study undertaken in Stage 2 will have confirmed a higher proportion of fixed costs in smaller facilities. It is therefore proposed that the model to be tested include a different basis for determining fixed payments for different types of facilities. For example, fixed payments for smaller facilities may be based on capacity and for larger facilities based on occupancy.

#### *Pricing*

The draft pricing of the fixed and variable components will be based on the results of the costing study. Options to include differential pricing for the fixed component for the following types of facilities will also be explored and tested:

- Large and small facilities;
- Remote, regional and metropolitan, and
- Adjustments for specialist units and services.

#### *Implementation*

The roll-out of new assessment tools will be the most significant implementation issue during Stage 3. The implementation process and the workforce impacts for the government and providers will be dependent on the decision regarding independent (or external) assessments for residents taken in Stage 3.

Options in the fixed and variable payment model to be tested may include the provision of prospective and retrospective payments for the separate components.

#### *Regulatory systems*

Stage 3 will not include any changes to the existing ACFI regulatory and audit processes

### 6.3.2 Stage 3 stakeholder engagement

This stage is principally one of stakeholder engagement in the testing of changes that will impact on the sector and in a sector wide education program. This extensive engagement is

designed to ensure widespread understanding of the overall design and incentives built into the funding reforms and the impact on both the sector and for individual providers.

This engagement will take the form of workshops, teleconferences, the preparation and delivery of formal reports and discussion materials (with feedback) and informal discussions.

#### **6.4 Stage 4 - Implementation of fixed and variable payment model using a branching classification**

This is the final stage of the recommended funding system development project and includes the implementation of the first version of the model described as Option Five in Section 4.5 of this report (page 34). The completion of this stage should be followed by ongoing maintenance and refinement resulting in the transition to full implementation across the aged care sector.

During Stage 4 the branching classification system will be implemented. This is anticipated to be a 6 month project following the fixed and variable model testing and the introduction of the new assessment tools in Stage 3. Importantly, the engagement, education and change management activities that support implementation will also have been key features of the Stages 1-3.

The branching classification will determine the variable component of subsidies to be paid in Stage 4. The fixed funding component will be retained from Stage 3.

##### **6.4.1 Stage 4 project deliverables**

###### ***Classification***

The branching classification will be implemented and sector-wide education about it will continue.

###### ***Pricing***

Variable pricing will be established based on the branching classification. The per diem variable payment will be informed by the per diem costs calculated during the costing study and the cost weights for each end-class within the classification.

The fixed payment pricing structure will be retained from Stage 3 with indexation as appropriate.

###### ***Funding model***

The fixed and variable payments that were modelled and tested in Stage 3 will be introduced with the variable per diem that relates to the cost of individualised care needs determined based on the branching classification.

###### ***Implementation***

There are two important implementation considerations for Stage 4 of the funding reforms from the perspective of workforce and culture within the aged care sector. These are:

- The introduction of an ABF system with its associated regulatory and incentive systems, and



- The introduction of adjustment payments and other pricing signals to reinforce the expectation that maximising function and wellness are core business for residential aged services (see Section 6.4.3 below).

Additional implementation concerns relate to the technical systems and infrastructure that need to be in place to support:

- the collection of assessment data and grouping to the residential aged care funding classes, and
- an ongoing program of costing to update price and cost weights.

Implementation issues are discussed further in Section 6.4.3 below.

The establishment of systems that enable the casemix adjusted benchmarking of services for cost and profitability, safety and quality and outcomes may be considered at this time.

### **Regulatory systems**

In the recommended system the reported costs in regular costing studies informs the payment levels in the subsequent funding period. This type of system is said to be self-regulating and does not incentivise the inappropriate assignment of a resident to a class for residents with higher care needs. This mechanism is described in more detail in Appendix Four and Appendix Five.

The requirement for audit will need to be considered as part of the implementation program in this stage. The use of a branching classification based on independent assessment supported by evidence, and the use of actual cost data as the basis for pricing, removes a number of the current imperatives for an audit system.

The new system may require some less frequent audit programs relating to resident assessments and costing processes.

#### **6.4.2 Stage 4 stakeholder engagement**

This stage will involve significant clinical engagement in the design and validation of the branching classification model including the selection of assessment tools. This will involve formalised consultations with expert panels and peak bodies within the aged care sector.

Wider engagement in Stage 4 will focus on issues of industry acceptance, change management and the identification/management of incentives created by the new system.

Implementation options around the adjustment payment and the requirements for ongoing costing (such as sample costing studies, voluntary submissions, targeted for specific services and so on) should be discussed with stakeholders.

Engagement with providers and IT experts representing both the providers and funding bodies will need to occur to ensure that the information systems are prepared adequately to accept and process new information.

### 6.4.3 Summary of key features of the fully implemented system

#### *Assessment*

Our recommendations regarding assessment are:

- The initial assessment should either be, or should build on, the initial ACAT assessment (if recent) and take account of all available evidence from health and service providers and carers (formal and informal);
- The assessment should address the current needs of the applicant/new resident, plus what those needs are likely to be in the post-adjustment period, and
- Each assessment should include an ‘outlook assessment’, i.e., are the residents’ care needs likely to change or have the capacity to be improved in the future (beyond the initial adjustment period)? The outlook assessment should also include a recommended timing for reassessment.

Whether assessments should continue to be conducted internally or moved to independent assessors cannot be resolved at this point. This decision cannot be made until funding system design is further advanced. If the initial assessment is to move from internal to independent arrangements, the pros and cons of the various independent assessment arrangements will need to be carefully considered. The question of how assessments are funded will also need to be addressed. There will also be workforce implications.

#### *Protocol for reassessment*

It is also too early to determine whether a protocol for reassessment is required. If so, the options for the timing of reassessment will need to be explored. These include:

- Reassessments occur based on advice from the previous assessment;
- Reassessments occur at regular time periods (say, each year), and
- Reassessments only occur in response to significant events such as the return from an acute hospital admission, or evidence of significant decline.

Protocols regarding who can initiate reassessment and acceptable timings between assessments will also be required.

#### *Wellness as core business*

Engaging residents in meaningful activities, and promoting participation and independence in an ongoing way (i.e., the wellness approach), should be regarded as the care standard for all residents in aged care settings who are likely to benefit. Wellness should be built into the baseline funding model.

#### *The adjustment payment*

We recommend that a core feature of the fully implemented system be the introduction of a one-off adjustment payment when residents first enter care. This one-off payment recognises the initial costs of an adjustment period when a new resident enters a facility. Importantly, it is also unambiguous about the fact that this should be a temporary situation after which adjustment issues should be resolved and the cost reduced.

The adjustment payment is proposed to incentivise the delivery of care to address adjustment issues early and should cover the additional costs within the first three months associated with:

- The resident taking time to adjust to their new environment;
- Facility staff getting to know the resident and family;
- Care planning;
- Behaviour management, if necessary;
- Health care assessments including pain management, and
- Working with every resident and their family to develop an advanced care plan.

Only in exceptional circumstances, and on the basis of a further independent assessment, (at which time the resident may be reassigned to a different class, if appropriate) should a higher payment level continue beyond three months. This assessment should include the review of evidence that the appropriate care interventions have been undertaken during the adjustment period.

This system also discourages the overstatement of what are known to be temporary issues as ongoing issues in order to attract additional funding to address them. It also incentivises care that will address initial behavioural or other issues as the additional costs will not be funded after the adjustment period.

There are a number of implementation considerations associated with the adjustment payment. They include:

- Setting the level of the adjustment payment. Options include having the same standard adjustment payment for all or specific adjustment payments informed by assessments;
- The assessments of care needs beyond the initial adjustment period. The assessment of current capability versus expected capability at the end of the adjustment period will require some definitions and expert assessment skills, and
- This adjustment payment is not for re-ablement or restorative care and it is expected that the resident should not be eligible for re-ablement or restorative care at this time.

Some considerations for the administration of this payment are:

- A resident may only receive one adjustment payment;
- If a resident leaves within a short period of time, the facility may not be entitled to the full adjustment payment, and
- If a resident moves to another facility within a short period of time, the initial facility may not be entitled to the full adjustment payment, with a proportion of the payment moving with the resident.

### ***Behaviour management***

Recognising that behaviour management through good care planning and environmental design is core business (not an add-on) is a key feature of the recommended approach. The funding model should assume that a well-designed environment, meaningful engagement and

good pain management are care standards that apply to all residents and to all homes, and assumed within baseline payments.

The one off 'adjustment' payment, discussed above, is recommended to incentivise the delivery of care to address adjustment issues early and to cover the additional costs within the first three months associated with behaviour management, if necessary, as well as other adjustment issues.

For the small percentage of people who have health conditions that result in them exhibiting challenging behaviours irrespective of the standard of care they receive or their physical environment additional funding after the initial adjustment period may be required.

The branching classification will include a small number of final classes for residents with exceptional challenging behaviours. However, allocation to these classes would not be routine. These classes would be used only in exceptional circumstances and only after independent assessment by an authorised specialist assessor.

### ***A self-regulating system with routine pricing review mechanisms***

One of the key features of this system based on a branching classification which is supported by regular costing studies is that the incentives to 'game' the system by 'up-classing' are largely removed.

The regular reporting of actual cost data will inform both the payment rate and the cost relativities (or cost weights) between different types of services. The use of cost weights means that even if the actual amount of subsidy (i.e. the price) changes the cost weight will ensure that the cost relativities are preserved. Where one service is known to cost twice as much as another service it will always receive twice as much funding regardless of the price.

The important self-regulatory feature is the fact that the reported costs in one year inform payments in the subsequent period. In the case that residents are incorrectly reported as being significantly more incapacitated in order to attract additional payments, the care that they receive will still be in line with their actual care needs and their reported costs will reflect that. The system response will be to reduce the payment for that type of resident in the subsequent round of funding and any benefit to the provider for 'up-classing' will be negated.

## **7 High level project methodology to implement the recommended model**

This section outlines the key activities that should be undertaken under the recommended approach and indicates the expected timeframe to complete each activity. The time indicated is elapsed time and it is anticipated that many of these activities will occur concurrently with overlapping timeframes. The proposed overall two year development schedule is summarised in Table 4.

A stakeholder engagement, communication and education program, the foundations of which will be developed in Stage 1, and a detailed project management plan are keys to the successful implementation of the significant reforms that are recommended.

It is assumed that the commencement of this program of work will be preceded by the endorsement of the recommended funding approach outlined in Section 6.

**Table 4 Overall project schedule**

Activity	Description	Time allocation	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	
<b>Stage 1</b>																											
1	Establish a steering group and a stakeholder and clinical expert reference groups	2 mths	█	█																							
2	Finalise the detailed project plan	2 wks		█																							
3	Develop an industry wide communication, consultation and education strategy that includes the project sponsors (government) and industry stakeholders	3 mths		█	█	█																					
4	Undertake the review and refinement of the ACFI in consultation with clinical experts and utilising available ACFI data	6 mths		█	█	█	█	█	█																		
<b>Stage 2</b>																											
5	Design a sampling framework for the costing and classification development study	2 mths	█	█																							
6	Consult with the clinical expert reference group to select / modify / design assessment tools	4 mths		█	█	█	█																				
7	Design the data collections for assessment and service utilisation data and financial data	2 mths					█	█																			

Activity	Description	Time allocation	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24
8	Prepare and submit application for ethical approval for the project	3-6 mths																								
9	Select a sample of facilities using the sampling framework and invite sites to participate in the study	2 mths																								
10	Undertake a formal education which will involve preparing sites for the data collection	3 mths																								
11	Undertake the data collection for costing and classification development. The data collection process may be staggered over several months.	3 mths																								
12	Undertake a series of statistical analyses that synthesis of the financial, service utilisation and clinical assessment data and provide the results of the analysis for comment.	2 mths																								
13	Undertake data analysis and expert consultation for classification development.	3 mths																								
14	Prepare the first draft of the classification for review and endorsement by the DoH and the project steering and stakeholder reference groups.	2 mths																								
15	Finalise Version 1.0 of the classification after incorporating feedback.	1 mth																								

Activity	Description	Time allocation	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	
<b>Stage 3</b>																											
16	Progressively introduce the new clinical assessment tools across the sector	6 mths																									
17	Model and test a draft version of the fixed and variable payment proportions developed based on data analysis	3 mths																									
<b>Stage 4</b>																											
17	Develop the ABF-based residential aged care funding model based on the agreed Option.	3 mths																									
18	Develop the detailed implementation plan including all elements of the funding reform.	3 mths																									
19	Implement the new funding approach in accordance with the implementation plan.	Up to a further 2 yrs																									



## 8 Next steps

Our recommended proposal represents significant change for the sector and it requires an implementation strategy that involves education and sector-wide consultation and engagement.

Sufficient time should be allowed for stakeholders to consider options and participate in decision making regarding the final model, including a suitable and realistic implementation timetable for the sector. This decision making may be an iterative process which could be supported with further analysis and modelling of options.

Those elements of the reform that requires changes to the legislation will need to be identified early in the process and the specific actions and timeframes required to enact required legislative changes will need to be scheduled.

Finally, it is critical to consider the issue of transitioning to the full implementation of the agreed reforms. This may include options to stagger the implementation, to include shadowing or safety nets in the funding allocation for a limited period and/or to 'grandfather' funding levels for residents already in care. The aged care sector (government, providers, consumers) needs certainty of funding during the transition period and, if an improved funding model is to be achieved, key stakeholders will need an opportunity to shape the details of the reform as it is progressively implemented.

## References

- ACSA (2016). 2016/17 PRE BUDGET SUBMISSION. Australia, Aged & Community Services Australia (ACSA).
- ACSA (2016). "ACSA National Report." 392, 10 November 2016
- ACSA (2016). Principles for Aged Care Services Funding, Aged & Community Services Australia (ACSA).
- Aged Care Guild. (2016). "Inquiry into introducing competition and informed user choice into human services, Submission 219." Retrieved Nov 2016, from [http://www.pc.gov.au/\\_data/assets/pdf\\_file/0020/204941/sub219-human-services-identifying-reform.pdf](http://www.pc.gov.au/_data/assets/pdf_file/0020/204941/sub219-human-services-identifying-reform.pdf).
- Alberta Health Services (2015). Patient/care based funding of long-term care: user summary. Alberta Health Services.
- Arik, G., H. D. Varan, B. B. Yavuz, E. Karabulut, O. Kara, M. K. Kilic, M. C. Kizilarlanoglu, F. Sumer, M. E. Kuyumcu, Y. Yesil, M. Halil and M. Cankurtaran (2015). "Validation of Katz index of independence in activities of daily living in Turkish older adults." *Arch Gerontol Geriatr* 61(3): 344-350.
- Arling, G., R. L. Kane, C. Mueller and T. Lewis (2007). "Explaining direct care resource use of nursing home residents: findings from time studies in four states." *Health Serv Res* 42(2): 827-846.
- Australian Aged Care Quality Agency (2015). Australian Aged Care Quality Agency Annual Report 2014-15, Australian Aged Care Quality Agency.
- Busse, R. (2011). *Understanding DRGs in Europe. The EuroDRG project*. EuroDRG Final Conference, Berlin, Germany.
- Cadieux, M.-A. (2012). *Comprehensiveness of the RUG-III grouping methodology in addressing the needs of people with dementia in long-term care*, Université d'Ottawa/University of Ottawa.
- Challis, D., P. Clarkson, J. Williamson, J. Hughes, D. Venables, A. Burns and A. Weinberg (2004). "The value of specialist clinical assessment of older people prior to entry to care homes." *Age and Ageing* 33(1): 25-34.
- CIHI (2011). How RUG-III (44 Group) Case Mix Index Values Are Calculated, 2011—CCRS Technical Document, Canadian Institute for Health Information (CIHI).
- CMS. (2013). "Analyses of data collected in CMS national nursing home time study used to establish RUG-IV model." Retrieved Nov 2016, 2016, from <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/SNFPPS/TimeStudy.html>.
- CMS. (2013). "Skilled Nursing Facility PPS - Case Mix Prospective Payment for SNFs Balanced Budget Act of 1997." Retrieved 28/11/2016, from <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/SNFPPS/>.
- COTA Australia. (2016). "Federal Budget 2016 Position Statement " Retrieved Nov 2016, from [http://www.cota.org.au/lib/pdf/COTA\\_Australia/publications/submissions/cota-federal-budget-2016-positioning-statement.pdf](http://www.cota.org.au/lib/pdf/COTA_Australia/publications/submissions/cota-federal-budget-2016-positioning-statement.pdf).
- Department of Health. (2016). "Aged care provider funding – further revision of the Aged Care Funding Instrument." Retrieved Nov 2016, from <http://www.health.gov.au/internet/budget/publishing.nsf/Content/budget2016-factsheet20.htm>.
- Department of Health (2016). Public Long-Term Care Financing Arrangements in Selected OECD Countries. Canberra, Department of Health.
- Department of Health (2016). Public Long-Term Care Financing Arrangements in Selected OECD Countries (Internal Draft Report). Department of Health.

Doty, P., Nadash, P., Racco, N. (2015). "Long-Term Care Financing: Lessons From France." Milbank Quarterly 93(2): 359-391.

Dubuc, N., R. Hébert, J. Desrosiers, M. Buteau and L. Trottier (2006). "Disability-based classification system for older people in integrated long-term care services: The Iso-SMAF profiles." Archives of Gerontology and Geriatrics 42(2): 191-206.

Federal Government of Belgium. "Allowance for assistance to the elderly." Retrieved 28/11/2016, from <http://handicap.belgium.be/fr/mes-droits/allocation-aide-personnes-agees.htm>.

Federal Government of Belgium. "Maximum amounts of allowances for disabled persons." Retrieved 28/11/2016, from <http://handicap.belgium.be/docs/fr/montants-maximaux-allocations-010616.pdf>.

Federal Ministry for Labour Social Affairs and Consumer Protection of Austria. "Care benefits." Retrieved 28/11/2016, from [https://www.sozialministerium.at/site/Pension\\_Pflege/Pflege\\_und\\_Betreuung/Hilfe\\_Finanzielle\\_Untersuetzung/Pflegegeld/#intertitle-1](https://www.sozialministerium.at/site/Pension_Pflege/Pflege_und_Betreuung/Hilfe_Finanzielle_Untersuetzung/Pflegegeld/#intertitle-1).

Government of France. "Allowances and aids for the elderly." Retrieved 28/11/2016, from <https://www.service-public.fr/particuliers/vosdroits/N392>.

Government of France (2016). Social Welfare and Family Law, French Government.

Guthrie, D. M. and J. W. Poss (2013). "Development of a case-mix funding system for adults with combined vision and hearing loss." BMC health services research 13(1): 1.

Health Policy Solutions (2011). Activity based funding for Australian public hospitals: Towards a Pricing Framework.

Heckman, G., L. C. Gray and J. Hirdes (2013). "Addressing health care needs for frail seniors in Canada: the role of interRAI instrument." Canadian Geriatrics Society Journal of CME 30(1): 8-16.

Hirdes, J. P., L. Mitchell, C. J. Maxwell and N. White (2011). "Beyond the 'iron lungs of gerontology': using evidence to shape the future of nursing homes in Canada." Canadian Journal on Aging/La Revue canadienne du vieillissement 30(03): 371-390.

Hirdes, J. P., J. W. Poss and N. Curtin-Telegdi (2008). "The Method for Assigning Priority Levels (MAPLe): A new decision-support system for allocating home care resources." BMC Medicine 6(1): 9.

Howell-White, S., D. Gaboda, N. S. Rosato and J. A. Lucas (2006). "Creating needs-based tiered models for assisted living reimbursement." The Gerontologist 46(3): 334-343.

Independent Hospital Pricing Authority (2015). The Pricing Framework for Australian Public Hospital Services 2016-17. IHPA.

Leading Aged Services Australia. (2016). "Policy Statement: Economic – Funding Stability " Retrieved Nov 2016, from <http://www.lasa.asn.au/wp-content/uploads/2016/08/LASA-2016-policies-and-position-statements-final.pdf>.

Martin, L., B. E. Fries, J. P. Hirdes and M. James (2011). "Using the RUG—III classification system for understanding the resource intensity of persons with intellectual disability residing in nursing homes." Journal of intellectual disabilities 15(2): 131-141.

MDS (2016). Guidelines of the National Association of Statutory Health Insurance Funds for needs assessment. Medizinischer Dienst des Spitzenverbandes der Krankenkassen (Medical Review Board of the Federal Association of Statutory Health Insurance Funds).

MDS. (2016). "Long-term care assessment." Retrieved 28/11/2016, from <https://www.pflegebegutachtung.de/>.

MEDPAC (2016). Skilled Nursing Facility Services Payment System. MEDPAC.

Milbank Memorial Fund (2003). Implementing the Resident Assessment Instrument: Case Studies of Policymaking for Long-Term Care in Eight Countries.

Ministry of Health Labour and Welfare of Japan (2015). Health and Welfare Services for the Elderly - Outline of Long-Term Care Insurance System. L. a. W. Ministry of Health.

Minnesota Department of Health. (2015). " Case Mix Classification Manual for Nursing Facilities." Retrieved Oct 2016, from <http://www.health.state.mn.us/divs/fpc/profinfo/cms/index.html>.

Moher, D., A. Liberati, J. Tetzlaff, D. G. Altman and P. Group (2009). "Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement." *PLoS Med* 6(7): e1000097.

Murray, N. A Review of the Aged Care Funding Instrument (ACFI), Department of Health, Government of Australia.

National Health Insurance Fund for Employees (2008). The AGGIR model - User guide, Caisse nationale d'assurance maladie des travailleurs salariés (National Health Insurance Fund for Employees).

NHS UK. (2015). "How will my eligibility for NHS continuing healthcare be assessed? ." Retrieved Nov 2016, 2016, from <http://www.nhs.uk/chq/Pages/eligibility-assessment-for-nhs-continuing-healthcare.aspx>.

Poss, J. W., J. P. Hirdes, B. E. Fries, I. McKillop and M. Chase (2008). "Validation of Resource Utilization Groups version III for Home Care (RUG-III/HC): evidence from a Canadian home care jurisdiction." *Medical care* 46(4): 380-387.

Rees, G. (2016). "Quoted in International Alzheimer's chief cautions aged care stakeholders on reforms." Retrieved Nov 2016, from <http://www.australianageingagenda.com.au/2016/10/07/international-alzheimers-chief-cautions-aged-care-stakeholders-on-reforms/>.

Rosewarne, R. (2007). The new aged care funding instrument — the story of its development. Melbourne, Australia, Applied Aged Care Solutions.

Shelkey, M. and M. Wallace (2012). "Katz Index of Independence in Activities of Daily Living (ADL)." *Journal of the American Geriatrics Society* 31(12): 721-726.

Speech Pathology Australia. (2014). "Submission to the Inquiry into the Prevalence of different types of speech, language and communication disorders and speech pathology services in Australia. Senate Community Affairs References Committee." Retrieved Nov 2016, from [http://www.speechpathologyaustralia.org.au/spaweb/Document\\_Management/Public/Advocacy.aspx](http://www.speechpathologyaustralia.org.au/spaweb/Document_Management/Public/Advocacy.aspx).

Sutherland, J. M., N. Repin and R. T. Crump (2013). "The Alberta Health Services Patient/Care-Based Funding Model for Long Term Care." *A Review and Analysis*. Vancouver: Centre for Health Services and Policy Research, University of British Columbia.

The Iowa Foundation for Medical Care (2011). Staff Time and Resource Intensity Verification Project.

Tsutsui T, M. N. (2005). "Care-needs certification in the long-term care insurance system of Japan." *Journal of the American Geriatrics Society* (53): 522-527.

Uniting Care Australia. (2016). "Submission to the Productivity Commission's Preliminary Findings Report - Introducing Competition and Informed User Choice into Human Services: Identifying Sectors for Reform " Retrieved Nov 2016, from <http://www.unitingcare.org.au/media-publications/submissions/submission-to-the-productivity-commission-s-preliminary-findings-report-introducing-competition-and-informed-user-choice-into-human-services-identifying-sectors-for-reform>.

Willemé, P. (2010). "The long-term care system for the elderly in Belgium." ENEPRI Research Report No. 70

Zhang, N. J., L. Unruh, R. Liu and T. T. Wan (2006). "Minimum nurse staffing ratios for nursing homes." *Nursing Economics* 24(2): 78.

Zhang, Y., P. Yu and J. Shen (2012). "The benefits of introducing electronic health records in residential aged care facilities: A multiple case study." International Journal of Medical Informatics 81(10): 690-704.