The Australian Government Department of Health

Analysis of proposed MBS Items for Palliative Medicine

Final Report

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This report is a contracted technical report for use by the Medical Services Advisory Committee (MSAC) to inform its deliberations. MSAC is an independent committee which has been established to provide advice to the Minister for Health on the strength of evidence available on new and existing medical technologies and procedures in terms of their safety, effectiveness and cost-effectiveness. This advice will help to inform government decisions about which medical services should attract funding under Medicare.

MSAC's advice does not necessarily reflect the views of all individuals who participated in the MSAC evaluation.

This report was prepared for MSAC by Aspex Consulting. The report was commissioned by the Department of Health on behalf of MSAC.

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List of Abbreviations

AChPM	Australasian Chapter of Palliative Medicine
AIHW	Australian Institute of Health and Welfare
AMC	Australian Medical Council
ANZCA	Australian & New Zealand College of Anaesthetists
ANZSPM	Australian & New Zealand Society of Palliative Medicine
BEACH	Bettering the Evaluation and Care of Health
CHF	Congestive Heart Failure
CI	Confidence Interval
CICM	College of Intensive Care Medicine
COPD	Chronic Obstructive Pulmonary Disease
CPMEC	Confederation of Postgraduate Medical Councils
CPD	Continuous Professional Development
CT	Computer Tomography
DAP	Decision Analytic Protocol
DoHA	Department of Health and Ageing (now Australian Government Department of Health)
EMSN	Extended Medicare Safety Net
FACRRM	Fellowship of the Australasian College of Rural and Remote Medicine
FAFRM	Fellowship of the Australasian Faculty of Rehabilitation Medicine
FFPMANZCA	Fellowship of the Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists
FRACP	Fellowship of the Royal Australasian College of Physicians
FRACS	Fellowship of the Royal Australasian College of Surgeons
FRANZCOG	Fellowship of the Royal Australian & New Zealand College of Obstetricians and Gynaecologists
FRANZCP	Fellowship of the Royal Australian and New Zealand College of Psychiatrists
FRNZCGP	Fellowship of the Royal New Zealand College of General Practitioners

FRANZCR	Fellowship of the Royal Australian and New Zealand College of Radiologists
FTE	Full Time Equivalent
FY	Financial Year
GP	General Practitioner
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
ICD	International Classification of Diseases
LCI	Lower Confidence Interval
LPI	Lower Prediction Interval
MBS	Medicare Benefits Schedule
MET	Medical Emergency Team
MND	Motor Neurone Disease
MRI	Magnetic Resonance Imaging
MSAC	Medical Services Advisory Committee
MSN	Medicare Safety Net
NHDD	National Health Data Dictionary
NHMRC	National Health and Medical Research Council
PCA	Palliative Care Australia
PCOC	Palliative Care Outcomes Collaboration
RACP	Royal Australasian College of Physicians
TGA	Therapeutic Goods Administration
UK	United Kingdom
UCI	Upper Confidence Interval
UPI	Upper Prediction Interval
WHO	World Health Organization

1 Executive summary

1.1 Purpose of application

An application has been received from the Australian & New Zealand Society of Palliative Medicine (ANZSPM) requesting a modification to the current listing of Medicare Benefits Schedule (MBS) items for the management of individuals with terminal illness. Specifically, ANZSPM has requested equivalence for all palliative care specialists for items for complex assessment and treatment planning, whether or not they are co-registered on the MBS as physicians.

As already known to the Department of Health, formerly the Department of Health and Ageing (Department), palliative medicine specialists provide a unique range of evidence-based interventions tailored to the specific needs of individuals (and their carers) who are facing life-limiting illnesses with little or no prospect of cure. The aim of palliative medicine is to provide specialist medical care and to co-ordinate a range of multidisciplinary interventions aimed at maximising the physical, psychological, social and spiritual quality of day-to-day living for those facing the last years, months, weeks or days of their lives.

This application represents an extension of previously recognised skills and funding through the MBS, to accommodate interventions associated with the recognised phases of palliative illness, and the provision of best-practice models of specialist medical care to patients during the final stages of terminal disease.

1.2 Purpose of this report

Aspex Consulting were commissioned by the Department of Health to evaluate the application by palliative medicine specialists for additional MBS items supporting complex patient assessment and treatment planning. Information was gathered to address specific issues outlined in the Final Decision Analytic Protocol (DAP) approved by the Protocol Advisory Sub-Committee (PASC) for investigation, focusing upon available evidence of:

- Population demand and supply of palliative medicine specialists;
- The clinical safety and effectiveness of interventions provided by specialists;
- The palliative medicine workforce and scope of practice in delivering clinical services;
- Alternatives for future MBS items to address the claims made by specialists; and
- The financial impact of each alternative upon current and future MBS arrangements.

Information was drawn from a range of sources including, MBS data, other national datasets, government policy papers, peer-reviewed publications, and consultations with specialists across Australian jurisdictions. This report summarises the available evidence for further consideration by the Medical Services Advisory Committee (MSAC), and informs any recommendations made to the Minister for Health for subsequent changes to the MBS item schedule.

1.3 Background

The professional value and contribution of the specialty of palliative medicine has been previously assessed and formally recognised by the Australian Medical Council (AMC) (2005). As such, the evidence underlying the unique range of skills offered by this group of specialists is accepted and has not been considered as a primary focus of the current application. Instead, this report has focused upon specific evidence that the designated specialty group:

- **Has been trained to meet a growing need** for services in the Australian community;
- **Has been trained and operate at a more advanced level of clinical competency** than other medical practitioners in addressing the needs of dying patients;
- **Adds value to the practice of other medical specialists** through the provision of specialist advice under ‘consultation liaison’ and ‘shared care’ arrangements;
- **Can demonstrate equal or better outcomes** in the personal management of more complex patients;
- **Requires modifications to existing MBS items to deliver best practice** standards of clinical care (in both public and private sector settings); and
- **Is more cost effective** when engaged in the community setting, thus preventing potentially avoidable (and more expensive) hospital admissions associated with end of life care.

1.4 Prerequisites to implementation of funding advice

It is noted that any new or modified MBS items would require a referral in accordance with the MBS G6.1 *Referral of Patients to Specialist of Consultant Physician*. It is also noted that any new MBS items would apply only to medical practitioners who were eligible for registration as a palliative medicine specialist. Eligible registrants will have completed an approved course of training and have been awarded a Fellowship of the Australasian Chapter of Palliative Medicine (FAChPM).

1.5 Proposal for public funding

It is proposed that there would be up to six groups of MBS items (four new, and two modified) for palliative medicine (see Chapter 6). These items have been developed in consultation with the applicant to *recognise the need for an initial patient consultation, in addition to a subsequent consultation that allows for detailed investigation and management of secondary diagnoses, comorbidities or treatment complications that arise during end-of-life care.* The proposed items, which will be available to all palliative care specialists, are ***equivalent to*** existing MBS arrangements and involve the following:

- Either use of consultant physician referred consultations for ***complex treatment and management planning*** (item 132) to more appropriately reflect that actual time to undertake comprehensive assessment of palliative care patients; and
- The retention and capacity to claim palliative care items for existing ***professional attendances*** for hospital/surgery (3005) and home visits (3018) to allow for detailed follow up assessment of any secondary diagnoses or other issues that emerge as patients deteriorate in condition; or

- No use of the of consultant physician referred consultations for ***complex treatment and management planning*** (item 132) but ability to access Item 3005 twice for the same patient;
- Modification to the titles of all items currently specified for ***home visits*** (*replacing the term 'home visit' with '**outside of hospital or surgery**'*) to make explicit their application to a range of community settings (e.g., home visits, residential aged care visits, hospice visits);
- Alternative ***time-tiered items for initial assessment*** (no equivalent items); and
- Alternative ***time-tiered items for subsequent attendances*** (no equivalent items).

1.6 Consumer impact statement

The contracted assessment concludes that patients will benefit from the new MBS items for palliative medicine because:

- The majority of individuals who have a choice, choose to die in a community environment (rather than as an admitted hospital patient);
- They will promote management of end stage palliative care in the community, thus avoiding potentially preventable hospital admissions (at significantly lower cost to the Australian health care system);
- They will support the capacity of general practitioners (GPs) to effectively identify (i.e. case find), refer and thus deliver shared-care care arrangements for palliative care patients under current management;
- They will reduce ad hoc and potentially unnecessary referrals to a range of other independent specialists (in addition to any repeated or unnecessary further investigations, pharmacological interventions or other procedures) for management of ongoing, or newly acquired secondary diagnoses, comorbidities or complications associated with end-of-life care; and
- They are likely to promote palliative care specialist workforce development and increase access to services for patients (particularly in the community).

1.7 Proposed interventions' place in clinical management

The majority of patients requiring palliative care will, at least initially, present to general practice for assessment and treatment – and then be referred on to an appropriate medical specialist, or referred for hospital admission. Evidence from a range of sources indicates that these patients:

- Will have a number of physical, psychological, social, cultural, legal, spiritual, and other issues that may impact upon the quality of their end-of-life experience, and thus a range of associated needs for resolution of individual, family, and/or carer related issues prior to dying;
- Will transition (over; years, months, weeks or days) through various periods of stable symptoms, unstable symptoms, deteriorating symptoms, and terminal symptoms. Their carers will also obviously experience a period of bereavement that may require palliative care intervention;

- Are highly likely to experience a range of secondary conditions, comorbidities or treatment complications that arise during end-of-life care (e.g. spinal cord compression from metastatic cancer; dysphagia causing aspiration pneumonia, or acute airway occlusion associated with end stage brain-stem related neurological disease; ascites associated with liver failure etc.);
- Are therefore highly likely to require a subsequent reassessment to any initial assessment in order to address the consequences of any secondary issues that emerge, particularly as they become unstable or deteriorating during the period of their palliative care intervention.
- Will require relatively urgent implementation of a range of multi-disciplinary interventions, aids, equipment or residential modifications to address identified or emerging concerns relating to end-of-life medical symptoms or concerns;
- Require a specialist with appropriate knowledge and capacity to identify current, foreseeable and emerging needs, implement appropriate medical interventions, and refer and co-ordinate a comprehensive range of multi-disciplinary care arrangements that meet the existing and changing needs of individuals during end-of-life care.

Palliative medicine specialists play a role in shared care arrangements with general practice, providing practitioner advice, specialist assessment and consultation. For individuals and their families requiring more immediate or comprehensive services, specialists have knowledge of and ready access to a range of other clinicians who are able to meet a variety of needs. These clinicians include; pastoral care, other physicians, nurses, social workers and mental health professionals. Specifically, palliative medicine specialists are trained to provide a number of medical services including (but not limited to):

- Complex assessments of patients experiencing life limiting illness, with the capacity to discuss prognostic implications, timeframes, symptom management, and address a holistic range of end-of-life concerns relating to psychosocial adjustment, functional ability, cultural issues, spiritual concerns and any other matters required to maximise the quality of life remaining for individuals and their families;
- Organise for on-going medical and multidisciplinary management in a range of settings including; inpatient, sub-acute/palliative care, hospice, home or residential care environments;
- Re-assess patient deterioration and adjust complex treatment/management plans and the appropriate mix of care arrangements and supports required by individuals and their carers;
- Understand and manage a range of complex pharmaco-therapeutic regimes for patients that manage symptoms, control pain and minimise or otherwise manage side effects associated with specific medications or medication interactions; and
- Perform a range of other medical interventions including, administration of blood and blood products, and a range of abdominal or peritoneal procedures.

Thus, palliative medicine is now a recognised specialty area that is available to a range of medical practitioners in the same way that other specialties may be called upon for advice and or management of complex medical conditions. The clinical algorithm is therefore equivalent to other specialty areas whereby the majority of patients are managed in general practice, and acute or complex patients are referred for specialist consultation and/or ongoing management as appropriate. These issues are discussed further in Chapter 3.

1.8 Other options for MSAC consideration

For physician equivalent items relating to **patient assessment** (and reassessment) two alternatives have been proposed:

- The first alternative would involve:
  - One new item at a consultant physician 'referred patient treatment and management planning' rate (132) to be claimable for an ***initial assessment*** in hospital/surgery or as a home visit; AND, one existing 'professional attendance' item for palliative medicine specialists to undertake detailed patient ***reassessment*** in hospital/surgery (3005) or as a home visit (3018);

    OR

  - Two existing 'professional attendance' items for palliative medicine specialists to undertake an ***initial assessment*** and detailed ***reassessment*** in hospital/surgery (3005) or as a home visit (3018).
- The second alternative would involve four 'time-tiered' items, allowing specialists to claim for actual time spent with a patient. Allowance would be made for specialists to claim these items on two separate occasions for any given patient within a 12-month period. This would be similar to a range of current MBS item numbers available to existing specialists (A3) and palliative medicine specialists (A24), but the price would be fixed so that it did not exceed the maximum available to other Physicians (A4), and include:
  - An MBS item for consultations of ≤ 20 minutes duration (priced at the value of MBS item 104 for other specialist consultations up to 20 minutes duration);
  - An MBS item for consultations of > 20 but ≤ 40 minutes duration (equivalent to MBS item 3005);
  - An MBS item for consultations of > 40 but ≤ 60 minutes duration (priced between MBS items 3005 and 132); and
  - An MBS item for consultations of > 60 minutes duration (equivalent to MBS item 132).

Any new time-tiered items would replace current items for ***initial*** 'professional attendance' in hospital/surgery (3005) or home visit (3018).

For items relating to subsequent attendances, two alternatives are also proposed:

- The first would be to retain all current items relating to subsequent and subsequent minor attendances for hospital/surgery consultation (3010, 3014) or home visits (3023, 3028); and
- The second would involve four 'time-tiered' items, allowing specialists to claim for actual time spent with a patient. This would be also similar to a range of current MBS item numbers available to existing Specialists (A3) and palliative medicine specialists (A24) but the price would be fixed so that it did not exceed the maximum available to other Physicians (A4) and would include:
  - An MBS item for consultations of ≤ 20 minutes duration (priced at the value of MBS item 105 for other specialist consultations up to 20 minutes duration);
  - An MBS item for consultations of > 20 but ≤ 40 minutes duration (equivalent to MBS item 3010);
  - An MBS item for consultations of > 40 but ≤ 60 minutes duration (priced between MBS items 3010 and 133); and

- An MBS item for consultations of > 60 minutes duration (equivalent to MBS item 133).

Any new time-tiered items would replace current items for ‘subsequent’ and ‘minor subsequent’ attendances in hospital/surgery (3010 and 3023) or home environments (3018 and 3028). These alternatives are discussed further in Chapter 6.

1.9 Comparator to the proposed intervention

Palliative medicine is a key component of palliative care. Palliative care services are currently provided by a range of medical, nursing, allied health and other professionals in both hospital and community settings. Referrals for palliative care-related services may be made by general practitioners, medical specialists, individual patients, their carers, or a range of other health professionals. Palliative medicine is the specialty that is trained to deal with a comprehensive range of medical issues and to assess, plan and co-ordinate a wide range of physical, psychological, social, and spiritual supports to address the end of life needs of patients and their carers.

Where palliative medicine specialists are unavailable, patients have access to interventions provided by a range of different health professionals. Access to different medical specialists (and other services) would be dependent upon the knowledge of the referring medical practitioner, the availability of different health professionals and the capacity of the medical practitioner to identify and co-ordinate a wide range of other multi-disciplinary services required by individual patients and their carers. The capacity to undertake and coordinate these referrals would also be dependent upon the individual medical practitioner’s acceptance and capability to deal with palliative phases of patient treatment (rather than predominantly focusing upon potentially curative approaches to any underlying illness).

The most clinically acceptable and cost-effective comparison for investigation involves the referral and management of palliative care patients in the community rather than an admitted hospital environment. Research reveals that the majority of patients and their carers prefer to die in a community environment. Evidence also indicates that when appropriately managed in the community, palliative care patients are 87.5% more likely to remain in the community until death. Thus, whilst palliative care admissions to hospital cannot entirely be avoided, there is a significant cohort of individuals who may prevent hospital admission by receiving appropriate community based management. Comparator specialty alternatives are discussed in further detail in Chapter 4.

1.10 Comparative safety

There is strong evidence for the safety of pharmacotherapy interventions provided by palliative care specialists (all of which have been previously approved by the Therapeutic Goods Administration (TGA) for prescription in Australia).

It is acknowledged however, that systematic analysis of the specific safety associated with delivery of these interventions by palliative specialists (compared with delivery by other specialist groups) is lacking in the research literature. Notwithstanding, anecdotal examples of where palliative medicine can offer safer outcomes (pending further specialty specific research) include, but are not limited to:

- Avoidable hospitalisations or investigations;
- Prevention of pharmaceutical toxicity;

- Management of pharmaceutical interactions;
- Early identification and management of spinal cord compression and/or other acute onset events secondary to systemic neoplastic disease;
- Management of severe psychological distress;
- Management of pain;
- Management of patient agitation; and
- Management of dyspnoea.

Comparisons with palliative care provided in general practice indicate that palliative care specialists are able to spend more time with patients (on average), have a higher level of specific training across a multitude of end-of-life interventions, are more readily able to implement and co-ordinate a range of multi-disciplinary interventions, and have greater exposure to a larger number of patients requiring end of life care in a typical year - thus enabling them to maintain a higher level of skill across a wide range of patients with palliative care needs.

Thus from the available evidence, services provided by palliative medicine specialists are possibly safer and more effective than the same services provided across a range of different medical practitioners.

1.11 Comparative effectiveness

Evidence indicates that an appropriate mix of interventions is required in order to maximise the quality of life remaining for patients with terminal illness. Given the multi-disciplinary nature of palliative care, research has not specifically examined the role of palliative medicine specialists as an individual component of team based interventions. More generally, the involvement of palliative care teams (including specialists) has been reported to result in:

- Increased time spent at home;
- A reduction in the number of inpatient hospital days;
- A reduction in the length of time spent in hospital for those requiring admission;
- Improved satisfaction by patients and their carers;
- Improved symptom control;
- A reduction in care giver burden; and
- A reduction in the overall costs of care.

The available evidence indicates that specialists in palliative medicine are more likely to provide, or otherwise co-ordinate, the best mix of evidence-based interventions in the right environment, to maximise patient and carer quality of life. It is also noted that a great deal of recent research has been funded in Australia, through the National Health and Medical Research Council (NHMRC). Many of these studies are expected to appear in the peer-reviewed literature over the next few years.

Thus, there is no evidence that the outcomes of interventions provided by palliative medicine specialists will be any worse than the same interventions provided by other specialists. Similarly, there is no evidence that outcomes provided by palliative medicine specialists who are co-registered as physicians on the MBS, and have access to items for comprehensive assessment and treatment planning, are any better or worse than other palliative medicine specialists[1]. Thus, it is acknowledged, that in the absence of specific comparisons between palliative medicine specialists and other specialists providing services to the same group of patients, there remains some uncertainty in relation to this judgement.

1.12 Economic evaluation

Cost effectiveness analysis is used as a means of determining the relative cost of undertaking a course of action compared with the most appropriate existing course of action. In the context of palliative medicine, cost effectiveness analysis is between two independent[2] treatment contexts, i.e. between interventions provided in hospital and in community environments.

Analysis between independent contexts would ordinarily suggest comparative analysis between the cost of interventions compared with the health gain of the intervention (usually expressed as a ratio). This is where conventional cost effectiveness analysis becomes problematic. Whilst it is possible to estimate the cost difference between consultations delivered by a palliative medicine specialist *(as part of a multidisciplinary team)* in a hospital versus a community context, it is not possible to identify the relative or absolute health gain resulting from one or a series of medical consultations in either context.

There has been acceptance within the medical profession that there are superior clinical benefits from palliative medicine interventions for palliative care related disorders relative to interventions provided by (willing) GPs or other specialty groups. On this basis, a cost effectiveness analysis should only need to demonstrate costs at or below the alternative contextual environments to demonstrate overall superior cost effectiveness.

Therefore, an economic evaluation of the palliative medicine MBS items has been based on a *relative cost of medical consultations in hospitals versus the community.* A modelled comparative analysis of *current* costs as at 2012-13 by palliative medicine (and other unknown) specialists working in the community rather than a hospital environment has been developed. The forecast costs for palliative medicine are based on the proposed fee structure where assessment and patient review are at physician rates.

Modelled comparative analysis

The current (2012/13) MBS outlays for palliative medicine are estimated to be ~$5.82M. However, due to service number increases and indexation, it is estimated that this will rise to $7.18M by 2014/15.

In 2012/13, benefits paid under the current scenario are estimated at $5.820M ($76.45/service) rising to $7.178M ($80.01/service) by 2014/15. Under scenario 1 (allowing for the addition of complex assessment and treatment planning), physician equivalent, benefits paid in 2012/13 are estimated at $8.378M ($110.06/service) an increase of $2.558M or 43.9% over current conditions. The increase above current conditions projected to

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[1] Attempts to undertake such investigations would not address questions about whether access to items for more comprehensive assessment/treatment planning result in better outcomes, as the majority of non-physician registered palliative medicine specialists report spending the same amount of time in their current patient assessment/treatment planning activities (as co-registered physicians) regardless of the level of MBS remuneration.

[2] This means that the actions are independent but not mutually exclusive.

2014/15 is $3.634M or 50.6% with total benefits estimated at $10.812M ($120.52/service). Under scenario 2 (time-tier) benefits are estimated at $8.027M in 2012/13 ($105.45) which is lower than the physician equivalent benefit by $0.351M and rises to $9.957M by 2014/15 ($110.99/service).

Forecasts (for both scenarios) also indicate that an additional outlay of up to ~$5.0M could result in savings of up to $21M, provided that an additional 20% of the palliative care population could be identified and treated in the community (avoiding a potentially preventable hospital admission). This suggests that even with an increase in payment rates for palliative medicine specialists, a significant cost advantage may be realised if an increase in the number of community palliative specialist consultations can be achieved, substituting potentially preventable hospital admissions.

The assumed mix of consultations between palliative medicine services delivered in a hospital or community environment are currently different; namely:

- In-hospital assessment comprises around 17% of consultations (with the remaining 83% of consultations involving subsequent patient review); and
- Community assessment comprises around 42% of consultations (compared with 58% of consultations involving patient review.

Under any revised MBS item scenario it is estimated that the proportion of assessments would double (due to the availability of two patient assessment items), with a corresponding reduction in the relative percentage of patient reviews. It must be noted however, that the overall number of community consultations may increase – but this cannot be readily determined from the available data.

1.13 Financial/budgetary impacts

It is estimated that a total of 76,124 occasions of MBS billed service are currently provided per annum (2013) for palliative medicine. Data on the frequency of use per patient per annum were unavailable from the MBS information. However, based on actual MBS data analysed for the part financial year 2012-2013 (Jul-Dec), the overall average ratio of initial to subsequent attendances for MBS items based on initial and subsequent visits, is 1 initial to 4.76 subsequent services in an admitted hospital context (Items 3O10 and 3005, 75% rebate), and 1 initial to 1.40- subsequent services in a community context (Items 3023 and 3018, 85% rebate). However, these crude ratios mask a variety of models of care ranging from regular (monthly) pharmacotherapy treatments to single event assessment on a GP referral.

The financial/budgetary impacts of the proposed alternatives and comparisons to the current conditions are summarised in Table 1-1.

Table 1-1: The financial/budgetary impacts of the proposed alternatives

	Benefits		Out-of-pocket	
	2012/13	2014/15	2012/13	2014/15
Services	76,124	89,715	76,124	89,715
	$M	$M	$M	$M
Current	5.820	7.178	2.295	2.820
Physician Equivalent	8.378	10.812	2.544	3.277
Time-Tier	8.027	9.957	2.819	3.481
Change from Current				
Physician Equivalent	2.558	3.634	0.249	0.457
Time-Tier	2.207	2.779	0.525	0.661

Benefit outlays under the physician equivalent alternative increase by $2.558M in 2012/13 and $3.634M in 2014/15 compared to estimated outlays under current conditions. The increases under the time-tier alternative are lower at $2.207M /2012/13) and $2.779 (2014/15).

Out-of-pocket cost increases under the time-tier option rise by $0.525M in 2012/13 and $0.661M in 2014/15 and are higher than the increases under the physician equivalent alternative. The majority of these costs occur in the hospital sector with only a minor increase for palliative medicine services delivered in a community environment. The analysis assumes the same out-of pocket cost differential between current palliative medicine arrangements and those associated with a change in MBS item structure. There was insufficient data to identify or model the impact of any changes in MBS item numbers upon the Medicare Safety Net (MSN) or Extended Medicare Safety Net (EMSN).

1.14 Key issues for MSAC

Main issues relating to the proposed eligible population

The proposed eligible population that is likely to benefit from palliative medicine services can only be estimated from population mortality data, which indicates that around 59% of all patient deaths in Australia may be eligible for a palliative care referral.

It is important to note however, that the estimated number of Australians potentially benefiting from palliative care services varies according to different stakeholder groups. The Department estimates indicate that up to 48% of all deaths may benefit from referral[3], while the AChPM estimates that up to 76% of all deaths may benefit from referral[4]. Variations in estimates of the potentially eligible population are perhaps best expressed in research literature, which provides estimates ranging from 44% to 78% of all deaths in Australia. Thus, the current estimate of 59% of all deaths in Australia as a potentially eligible population for referral to palliative care services is mid-range (compared with other forecasts) and was considered to be the best basis for modelling of population demand.

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[3] From evidence given the 2012 Australian Government Senate Community Affairs References Committee into Palliative Care in Australia.

[4] From evidence reported by the Australian Medical Council (2005) Assessment of Palliative Medicine as a Medical Specialty. Recognition of Medical Specialties, Advisory Committee Report, December 2005, AMC Inc.

Main issues relating to the actual supply of palliative care services in Australia

Significant difficulty exists in estimating the number of palliative care services actually delivered across Australia. In relation to public and private hospital statistics, the Australian Institute of Health and Welfare (AIHW) captures data on palliative care patients by identifying those admitted under a 'palliative care type' in addition to those where a 'primary or additional diagnosis' of palliative care has been coded in the hospital record. Coding practices differ significantly across jurisdictions such that: some jurisdictions (e.g., Western Australia and more recently New South Wales) will not code primary or additional palliative care diagnoses *unless* a patient has been formally admitted (or statistically separated) to a palliative care 'type' resulting in significant undercounting of the number of patients receiving palliative related clinical care. The same practices are apparent for Queensland. Other jurisdictions appear to have variable levels of coding in relation to primary or additional diagnoses of palliative care, delivered during a hospital admission.

Moreover, the classification of palliative care patients admitted to hospital does not mean that the same patients received services from a palliative medicine specialist. Although more likely in a designated 'palliative care type' admission (implying admission or transfer to a specialist palliative care unit), it is known that additional consultations to other medical and surgical units occur by palliative care specialists, but the coverage of these consultations across the entire 'eligible' cohort of patients classified as palliative care remains unknown.

Notwithstanding, current estimates reported by the AIHW have been used as the only available data upon which to estimate supply of hospital-related services. However, it is acknowledged that these may over-represent palliative care services provided by palliative medicine specialists (and relate to a range of other hospital-based medical practitioners providing palliative services, which may not necessarily cover the full range of needs of individual patients and their carers).

Additional difficulties exist in estimating the number of patients receiving palliative care in the community setting. Reporting of the number of community patients to the Palliative Care Outcomes Collaboration (PCOC) is voluntary. Moreover, the total number of community palliative care services operating across Australia is unknown (and can only be estimated by the number of registered providers listed by Palliative Care Australia). Thus, the coverage of current community services reporting to PCOC cannot be determined in order to estimate the annual number of community sector patients from available data. The only remaining source of community service supply is the estimated number of patients presenting to general practice, being the primary point of contact for the majority of patients in the community (as opposed to hospital) who are seeking services. This data has therefore been used as the best available source upon which to base any estimations of community supply.

Main issues around the evidence and conclusions for safety

The safety of pharmacotherapies listed on the Pharmaceutical Benefits Scheme (PBS) and prescribed to treat patients requiring palliative care has been previously established. The safety of psychosocial and other interventions to maximise the quality of life for patients is more difficult to ascertain, as it is dependent upon the appropriate training and qualifications of those delivering specific interventions. Training and ongoing professional accreditation remains within the purview of individual medical Colleges. Palliative care medicine specialists are trained and professionally accredited to deliver a wide range of psychosocial and other interventions. Thus, there is no evidence that the safety of pharmacotherapy, medical and psychosocial interventions will be any worse than the safety of the same interventions delivered by other appropriately qualified medical practitioners.

Main issues around the evidence and conclusions for clinical effectiveness

The effectiveness of pharmacotherapies listed on the PBS and prescribed to treat patients in palliative care has also been previously established. The clinical effectiveness of individual pharmacotherapies and other medical and psychosocial interventions is evident across a range of systematic reviews (considered beyond the scope of the current report). Palliative medicine specialists are well placed to deliver these services. Thus there is no evidence that the clinical effectiveness of interventions to address palliative care needs by palliative medicine specialists would be any worse than the effectiveness of the same interventions provided by alternative medical specialties. Rather, the range of interventions considered and implemented is more likely to be more comprehensive under the treatment of palliative medicine specialists who are also trained to spend sufficient time discussing difficult and complex end-of-life issues with patients and their carers.

Other important clinical issues and areas of clinical uncertainty

It is acknowledged that the specialty of palliative medicine has only recently been recognised by the Australian Medical Council (2005). As such, there has been limited time to develop and implement specific randomised controlled trials examining the safety and effectiveness of interventions delivered by this group of specialists relative to interventions provided by other specialists. Notwithstanding, available evidence suggests that comprehensive assessment, treatment planning, referral, and ongoing monitoring lead to better outcomes for terminally ill patients and their carers. Palliative medicine specialists are specifically trained to deliver these services.

Main economic issues and areas of uncertainty

Economic analysis has relied upon an examination of the relative cost efficiency of services provided by palliative medicine specialists as part of a multidisciplinary team in a hospital versus a community context. In the absence of specific studies focusing upon relative differences in clinical outcomes achieved by this group of specialists, analysis has relied upon the assumption that clinical outcomes will be no worse. Evidence available from the literature indicates that outcomes experienced by patients and their carers are no worse and are more congruent with their general preferences to die at home. Evidence also indicates that appropriate community management can significantly reduce the chances of dying in hospital. A comparison of costs has occurred within this context. It is acknowledged that no better information is currently available to inform the economic analysis.

1.15 Other significant factors

Several additional factors are worthy of consideration in relation to the current submission by palliative medicine specialists for new MBS items, namely that:

- Current evidence based models of palliative medicine require comprehensive patient assessment and treatment planning. These activities have been consistently reported by specialists to take up to or more than one hour (on average). Time appropriate payment is sought in this context, as specialists are not able to reduce the time taken for complex assessments without compromising the quality of patient care.

- Current funding arrangements available through the MBS present inequities in access to reimbursement of services by different palliative medicine specialists: Many specialists have dual fellowship with another medical college and can access items available to other medical practitioners in order to achieve a higher rebate for services provided to patients.
- Current funding arrangements available through the MBS present inequities in reimbursement arrangements between palliative medicine specialists and other specialists recognised by the Australian Medical Council and the Australian Government.
- Current funding arrangements have been reported to be incongruent with the actual time spent with patients in order to deliver current evidence-based palliative care, and carry a disincentive for trainees considering a future in palliative medicine. The capacity to maintain employment or engage in full scope of practice in the private sector has been limited. Workforce numbers are in decline and attraction of new trainees is considered important to maintain the viability and sustainability of the speciality area.
- Current funding arrangements have been reported by specialists to be an impediment to the provision of private (hospital and community) services. In some cases, this has been reported to result in a discontinuation of service provision. In other cases, the current level of MBS funding has been considered to be a disincentive to develop services in the private sector. Thus, access to higher rebated MBS items is considered by specialists to improve levels of palliative medicine service provision in the private sector.

1.16 Summary of consideration and rationale for MSAC’s advice

In summary, despite recognised challenges identifying accurate estimates of community demand for services, there appears to be significant additional demand for palliative care specialist interventions. The majority (if not all) of this demand could be identified through improved ‘case finding’ and referral from the general practice population. The interventions provided by palliative care specialists appear to be no worse in terms of safety or clinical effectiveness than the same services provided across a wide range of other medical specialists currently addressing the needs of individuals at the point of ‘end of life’ care. More importantly, the competency in delivering a comprehensive range of interventions by palliative medicine specialists to maximise the quality of end-of-life experiences by individuals and their families cannot be assured by other medical practitioners managing the same patient cohorts. Financial modelling indicates that any services provided by palliative medicine specialists, particularly in the community setting, are likely to be more cost-effective and result in lower out-of-pocket costs to patients compared with the same services delivered in a hospital context (by palliative care or other medical specialties).

1.17 Proposed new items for palliative medicine specialists

After considering the strength of the available evidence in relation to the demand, safety, effectiveness and anticipated cost of MBS items for palliative medicine, this contracted assessment concludes that MBS item descriptors could be similar to those detailed below.

To ensure policy consistency between existing MBS item groups, it is also advised that Extended Medicare Safety Net capping be applied to any new palliative health medicine MBS items. The financial risk of initially listing new professional attendance items in the absence of ESM capping is considered to be low, given that palliative care specialists, to date, have not been associated with excessive out-of-pocket-costs.

The two alternatives (to maintaining the status quo of the current MBS schedule) proposed for consideration by MSAC, are to:

- **Introduce complex assessments** as an optional additional patient assessment item, in addition to claiming the current initial assessment item – thus allowing the opportunity to conduct patient assessment on two individual occasions, by either claiming one new complex assessment and one existing assessment (in any order according to patient need), or two existing assessment items (**Option 1**); or
- **Introduce time-tiered consultations**, allowing for two patient assessment claims in the palliative care illness trajectory, and any follow-up consultation according to the actual time spent with individual patients (**Option 2**).
- In addition, it is proposed that the current wording for home visitation items is modified to make explicit their application in other community settings.

Item summaries or descriptors for additional MBS items are described below for MSAC's consideration, in the context of current items which are also set out in Table 1-2 below.

Table 1-2: Summary of item descriptors listed on Schedule A35 of the MBS currently available to palliative care specialists

SHORT DESCRIPTION	SURGERY OR HOSPITAL	HOME VISIT	DISCHARGE CASE CONFERENCE	COMMUNITY CASE CONFERENCE
Professional attendance	3005	3018	-	-
Subsequent attendance	3010	3023	-	-
Minor subsequent attendance	3014	3028	-	-
Organise/coordinate – duration 15-30 mins	-	-	3032	3069
Organise/coordinate – duration 30-45 mins	-	-	3040	3074
Organise/coordinate – duration 45+ mins	-	-	3044	3078
Participate – duration 15-30 mins	-	-	3051	3083
Participate – duration 30-45 mins	-	-	3055	3088
Participate – duration 45+ mins	-	-	3062	3093

OPTION 1: Introduce an additional assessment item for complex assessment

Item descriptors for an additional assessment item to be used with the current assessment item 3005 (Hospital or Surgery) or item 3128 (Home Visit)

PALLIATIVE CARE MEDICINE SPECIALIST, REFERRED PATIENT TREATMENT AND MANAGEMENT PLAN - SURGERY OR HOSPITAL

MBS Item XXXX

Professional attendance of at least 45 minutes duration for an initial assessment of a patient with at least two morbidities, where the patient is referred by a referring practitioner, and where:

a) assessment is undertaken that covers:
  - a comprehensive history, including psychosocial history and medication review;
  - comprehensive multi or detailed single organ system assessment;
  - the formulation of differential diagnoses; and

b) a consultant physician treatment and management plan of significant complexity is developed and provided to the referring practitioner that involves:
  - an opinion on diagnosis and risk assessment
  - treatment options and decisions
  - medication recommendations

Not being an attendance on a patient in respect of whom, an attendance under items 3005, 3010 or 3014 has been received on the same day by the same palliative care medicine specialist.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been made under this item for attendance by the same palliative care medicine specialist.

Fee: $263.90 Benefit: 75% = $197.95 85% = $224.35

PALLIATIVE CARE MEDICINE SPECIALIST, REFERRED PATIENT TREATMENT AND MANAGEMENT PLAN – OUTSIDE OF SURGERY OR HOSPITAL

MBS Item XXXX

Professional attendance of at least 45 minutes duration for an initial assessment of a patient with at least two morbidities, where the patient is referred by a referring practitioner, and where:

a) assessment is undertaken that covers:
  - a comprehensive history, including psychosocial history and medication review;
  - comprehensive multi or detailed single organ system assessment;
  - the formulation of differential diagnoses; and

b) a consultant physician treatment and management plan of significant complexity is developed and provided to the referring practitioner that involves:
  - an opinion on diagnosis and risk assessment
  - treatment options and decisions
  - medication recommendations

Not being an attendance on a patient in respect of whom, an attendance under items 3018, 3023 or 3028 has been received on the same day by the same palliative care medicine specialist.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been made under this item for attendance by the same palliative care medicine specialist.

Fee: $263.90 Benefit: 75% = $197.95 85% = $224.35

OPTION 2: Replace current items 3005 to 3028 with time-tiered consultation items

Descriptors for 2 x time-tiered assessment items (for Hospital/Surgery or Residential consultations)

Category 1 – Professional attendances

MBS Item YYY1

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an initial or subsequent assessment of not more than 20 minutes duration.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been received under any more than one of YYY1, YYY2, YYY3, or YYY4 for attendance by the same palliative care medicine specialist.

Fee: $88.55 Benefit: 75% = $66.41 85% = $75.27

MBS Item YYY2

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an initial or subsequent assessment of more than 20 minutes, but not more than 40 minutes duration.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been received under any more than one of YYY1, YYY2, YYY3, or YYY4 for attendance by the same palliative care medicine specialist.

Fee: $150.90 Benefit: 75% = $113.18 85% = $128.27

MBS Item YYY3

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an initial or subsequent assessment of more than 40 minutes, but not more than 60 minutes duration.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been received under any more than one of YYY1, YYY2, YYY3, or YYY4 for attendance by the same palliative care medicine specialist.

Fee: $207.40 Benefit: 75% = $155.55 85% = $176.29

MBS Item YYY4

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an initial or subsequent assessment of more than 60 minutes duration.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been received under any more than one of YYY1, YYY2, YYY3, or YYY4 for attendance by the same palliative care medicine specialist.

Fee: $263.90 Benefit: 75% = $197.93 85% = $224.32

Descriptors for all subsequent time-tiered consultation items (for Hospital/Surgery or Residential consultations)

Category 1 – Professional attendances

MBS Item ZZZ1

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - a subsequent attendance to an initial or subsequent assessment of not more than 20 minutes duration.

Fee: $43.00 Benefit: 75% = $32.25 85% = $36.55

MBS Item ZZZ2

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - a subsequent attendance to an initial or subsequent assessment of more than 20 minutes, but not more than 40 minutes duration.

Fee: $75.50 Benefit: 75% = $56.63 85% = $64.18

MBS Item ZZZ3

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - a subsequent attendance to an initial or subsequent assessment of more than 40 minutes, but not more than 60 minutes duration.

Fee: $103.80 Benefit: 75% = $77.85 85% = $88.23

MBS Item ZZZ4

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - a subsequent attendance to an initial or subsequent assessment of more than 60 minutes duration.

Fee: $132.10 Benefit: 75% = $99.08 85% = $112.29

MODIFICATIONS: Current item descriptors for Home visitations and follow-up consultations

PALLIATIVE CARE MEDICINE SPECIALIST - INITIAL CONSULTATION – OUTSIDE OF SURGERY OR HOSPITAL

MBS Item 3018

Professional attendance at a place other than consulting rooms or hospital by a consultant physician or specialist practising in the specialty of palliative medicine, where the patient was referred to him or her by a medical practitioner.

- INITIAL attendance in a single course of treatment

Fee: $179.70 Benefit: 85% = $152.75

PALLIATIVE CARE MEDICINE SPECIALIST - SUBSEQUENT CONSULTATION – OUTSIDE OF SURGERY OR HOSPITAL

MBS Item 3023

- Each attendance (other than a service to which item 3028 applies) SUBSEQUENT to the first in a single course of treatment

Fee: $108.70 Benefit: 85% = $92.40

PALLIATIVE CARE MEDICINE SPECIALIST - MINOR CONSULTATION – OUTSIDE OF SURGERY OR HOSPITAL

MBS Item 3028

- Each MINOR attendance SUBSEQUENT to the first in a single course of treatment

Fee: $78.25 Benefit: 85% = $66.55

1.18 Applicant's response to the public summary document

Nil.

1.19 Context for decision

See MSAC terms of reference.

1.20 Linkages to other documents

Australian Medical Council Report (2005) on Assessment of Palliative Medicine as a Medical Specialty.

MSAC's processes are detailed on the MSAC Website at: www.msac.gov.au (home page).

2 Population demand and supply of clinical services

2.1 The clinical population

Palliative care is the area of health where the clinical intent and treatment goals are to improve the quality of life for patients who have a life limiting illness with little or no prospect of cure. The clinical population treated by palliative care specialists has expanded from an historical focus upon oncology patients, to include those with a wide range of terminal illness.[5]

> *"Palliative care has historically been more closely aligned with cancer but this is changing – despite cancer rates increasing due to increasing cancer in an ageing community, the increase in other types of conditions that are requiring palliative care are also increasing, and cancer is decreasing as a proportion of the total. The main other types of patients include various organ failures (heart/liver/lung), MND and dementia patients."* [6]

A national survey, review of the literature, and targeted consultations with palliative care specialists revealed that:

There are three main categories (by volume) of palliative care patients, including those who have been diagnosed with cancer (the majority of patients), followed by organ failure, and terminal neurological disease.

> *"The patients we see would be 80:20 cancer versus non-cancer patients, where the main cancer types are lung/colorectal/brain. The main non-cancer palliative care patients are CHF, COPD and MND."*
>
> *"64% of the cases we see are where the primary diagnosis is malignancy – the balance include COPD, CHF and renal failure – 60% of non-malignant cases relate to end stage renal disease."*
>
> *"80-85% of patients have advanced malignancies – the balance of cases is COPD, CHF or frail elderly."*

A small number of palliative care specialists focus upon paediatric populations who may be diagnosed with a range of life limiting perinatal or genetic conditions. Others have also indicated the potential involvement of palliative care specialists with hospital patients requiring 'end of life' treatment decisions (e.g., treatment withdrawal or not for active resuscitation).

> *"Paediatric patients are a different mix of cases as non-malignant cases are the majority. Approximately 10% would be oncology cases. Major non-malignant conditions include progeria (Button's) disease, muscular atrophy disease and chromosomal depletion, particularly with neurological impacts. We also deal with severe end of life cerebral palsy cases. Paediatric cases have an unpredictable disease trajectory."*
>
> *"There are also trials including palliative care nurses on MET teams, and this could be an area of future practice."*

The precise mix of patients seen by individual palliative care specialists depends upon the clinical context in which they are employed (see Appendix 1), which frequently includes a

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[5] AIHW, Palliative care services in Australia 2012

[6] Quotations in pale grey throughout this report are statements made by palliative care specialists interviewed in preparation of this assessment.

mix of public and/or private hospitals, hospices,[7] community palliative care services and/or residential aged care services. The definition and mix of these clinical contexts varies across each jurisdiction in Australia. Notwithstanding, the most common diagnostic conditions reported across all treatment settings (in relative order of patient volume) involve:

- Lung cancer;
- Colorectal cancer;
- Breast cancer;
- Genito-urinary cancer;
- Upper gastro-intestinal cancer;
- Chronic obstructive pulmonary disease; and
- Other neurological diseases.[8]

Recent analysis of major clinical populations receiving same-day or overnight palliative care in Australian public and private hospitals have been undertaken by the Australian Institute of Health and Welfare (AIHW) which report that: [9]

- Around three quarters (74-76%) of all hospital based palliative care services are delivered to patients who have been diagnosed with neoplastic disease (cancer) including:
  - Secondary site cancer (53%);[10]
  - Lung cancer (16%);
  - Bowel cancer (9%);
  - Prostate cancer (6%); or
  - Breast cancer (6%).
- The remaining quarter of all hospital based palliative care services are provided to patients with a range of different conditions, the most common of which include:
  - Renal failure (13%);
  - Heart failure (8%); and
  - Chronic obstructive pulmonary disease (6%).

Patients receiving palliative care services often experience multiple hospital admissions, particularly towards the end of their disease trajectory. It is also recognised that around 50% of palliative care-type patients eventually die in hospital. Accordingly, it is also useful to understand the characteristics of patients who are admitted under palliative care or are otherwise considered to be receiving palliation during some point of their hospital stay, and who subsequently die during the same hospital admission.

- The majority of patients who die in hospital whilst receiving palliative care services have been diagnosed with cancers such as:
  - Brain cancer (74% die in hospital);

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[7] The term ‘hospice’ can mean various clinical contexts, from free-standing (public or private) facilities in the community, to designated palliative care beds or units in (public or private) hospitals.

[8] The volume of patients with COPD and Neurological disease was significantly higher in Residential Care environments, compared with patients treated in Community, Hospital, and Hospital settings.

[9] Australian Institute of Health and Welfare 2012. Palliative care services in Australia 2012. HWI 120 Canberra: AIHW. Australian Institute of Health and Welfare 2013. Palliative care services in Australia 2013. HWI 123 Canberra: AIHW.

[10] Note that percentages for individual diagnoses sum to more than 100% as individual patients may have more than one diagnosis (e.g., Lung cancer and Secondary site cancer).

  - Pancreatic cancer (70%);
  - Stomach cancer (70%);
  - Secondary site cancer (68%); and
  - Breast cancer (67%).
- The remaining patients who die in hospital whilst receiving palliative care services have a range of other conditions, most commonly:
  - Motor neurone disease (50%);
  - HIV/AIDS (45%);
  - Huntington disease (40%);
  - Parkinson's disease (35%): and
  - Liver failure (30%).

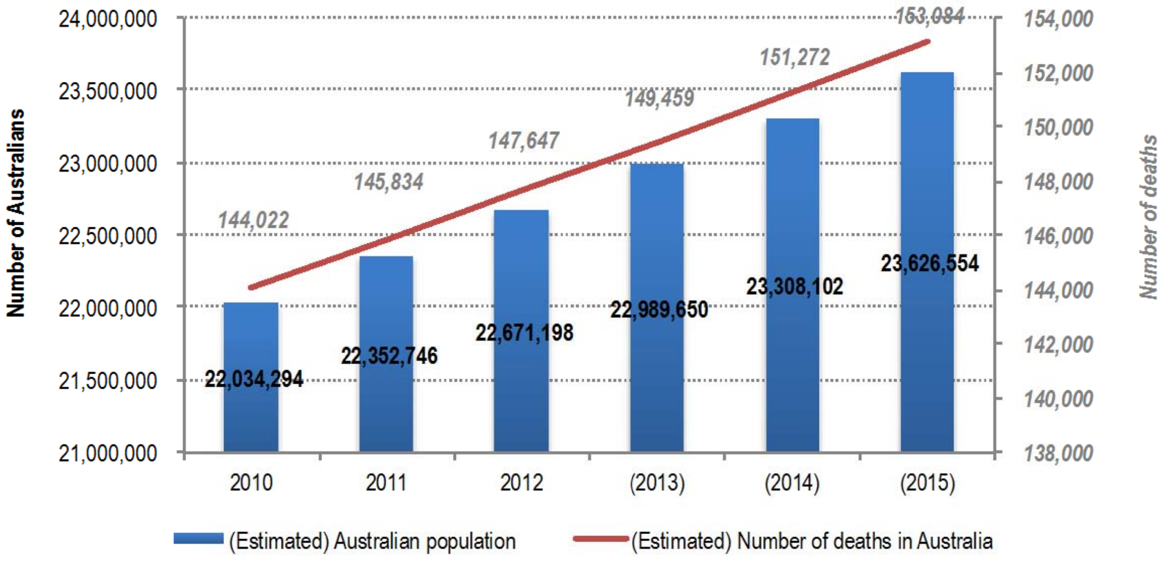
Thus, evidence reported from the literature, analysis of national data, and clinical consultation with medical specialists presents a consistent picture of the clinical population receiving services from palliative care services.

2.2 Demand for palliative care services

2.2.1 NATIONAL ESTIMATES OF THE CLINICAL POPULATION

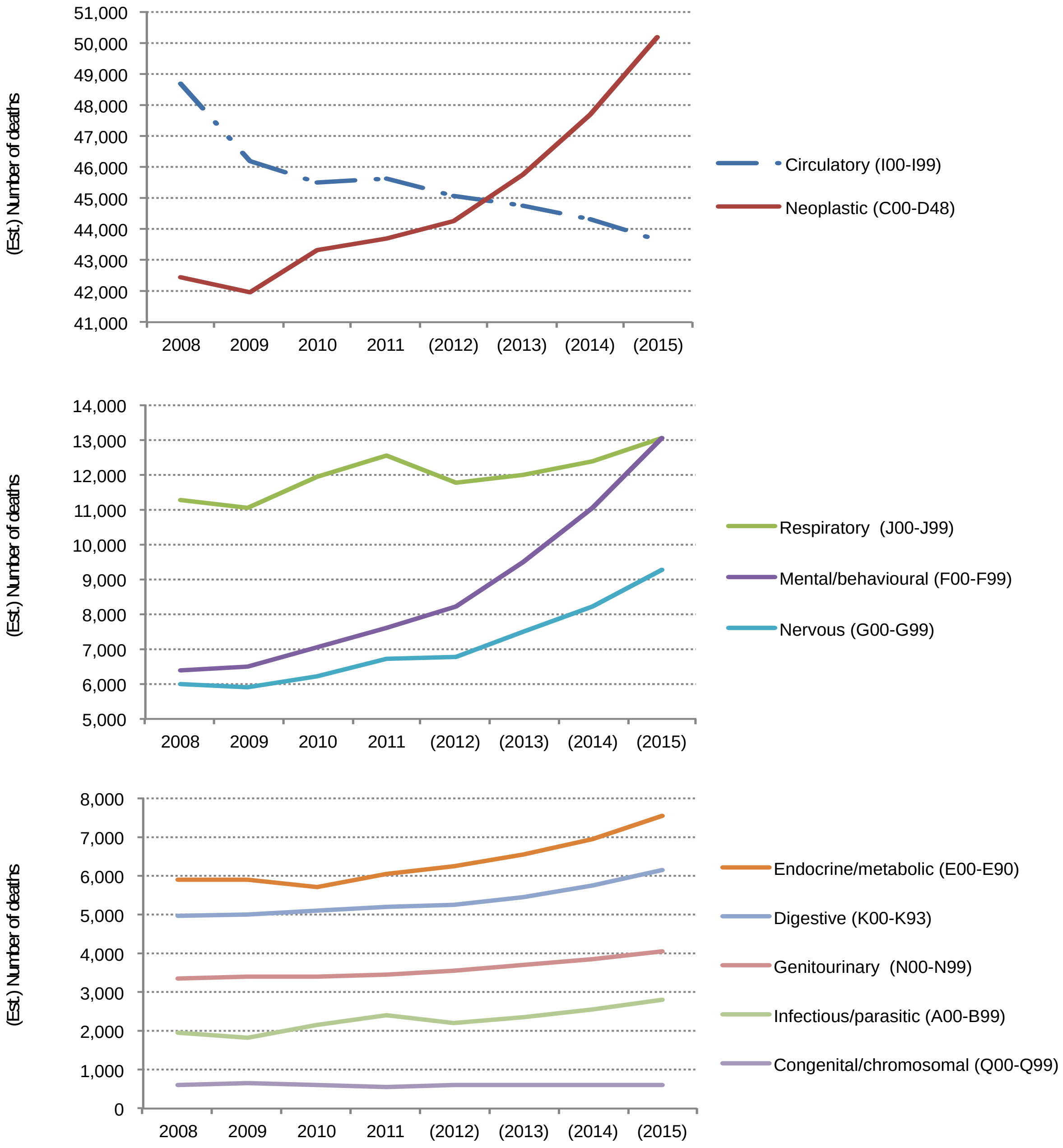
The number of deaths in Australia is increasing at the same rate of growth as the general population – approximately one percent per annum (Figure 2-1).

Figure 2-1: Population growth and number of deaths in Australia (2010 - 2015)



Analysis of deaths in Australia reported by the AIHW between 2002 and 2011 (and forecast to 2015) reveals that around 90% of all causes can be attributed to diseases within 10 body systems. With the exception of circulatory and congenital disease,[11] the number of deaths within the remaining body systems is anticipated to rise in future years (Figure 2-2).

Figure 2-2: Number of deaths by body system and ICD-10 grouping (2008-2015 est.)



The most recent causes of death reported by the AIHW (for 2011) are outlined in Table 2-1. Around two in every three deaths in Australia are accounted for by circulatory disease,

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[11] With the exception of circulatory system disease, which appears to be decreasing, and congenital/chromosomal, diseases that appear relatively stable. Linear forecasting was based upon known data (2008-2011) for each independently estimated future period (i.e., projected forecasts were not confounded by forecast data from a previous period in the estimation timeline). This is the case for all forecast estimates outlined in the current report.

cancer, or respiratory illness. The majority of these deaths (66%) occur for individuals who are 75 years of age or older.

Table 2-1: Major causes of death in Australia by body system and disease (2011)

BODY SYSTEM	% OF ALL DEATHS	MOST COMMON DISEASES	% OF ALL DEATHS
Circulatory	31.0	*Ischaemic heart disease* *Cerebrovascular disease* *Other forms of heart disease*	*14.6* *7.7* *5.3*
Cancer	29.8	*Lung* *Prostate* *Breast* *Secondary sites* *Pancreas* *Colon* *Skin* *Urinary tract*	*5.5* *2.2* *2.0* *1.7* *1.6* *1.4* *1.4* *1.4*
Respiratory	8.5	*Chronic obstructive pulmonary disease* *Influenza and pneumonia*	*3.6* *1.7*
Mental and behavioural disease	5.2	*Unspecified dementia* *Vascular dementia*	*3.9* *0.8*
Nervous system	4.6	*Alzheimer's disease* *Parkinson's disease* *Systemic atrophies such as Huntington's disease and Motor Neurone Disease*	*2.0* *0.9* *0.5*
Endocrine	4.1	*Diabetes mellitus* *Other metabolic disorders*	*2.9* *0.9*
Digestive system	3.5	*Liver disease* *Intestinal diseases*	*1.1* *1.1*
Genitourinary	2.4	*Renal failure*	*1.7*
Infectious/parasitic	1.6	*Bacterial disease*	*1.1*
Congenital/chromosomal	0.4	*Various*	*0.4*
Total (of all deaths)	91.1	*Total (of all deaths)*	*67.4*

Additionally, there are a range of policy drivers that will shift demand for palliative care services. Internationally, in 2004, the World Health Organisation declared that palliative care should be an integral part of all aged care services and an important component of any health care system. Locally, the Australian government has a number of major policy platforms to address further development of comprehensive palliative care services across the country supported through funding from the National Palliative Care Program. The aim of the Program is to improve access and quality of palliative care for all Australians by:

- Supporting patients, families and carers in the community;
- Increasing access to palliative medicine in the community;
- Education, training and support for the workforce; and
- Research and quality improvement for palliative care services.

This includes supporting States and territories in provision of sub-acute care palliative care services.

The cornerstone for national and jurisdictional developments and investment in palliative care is provided in the National Palliative Care Strategy, 2010. The Strategy aims to:

- Enhance the awareness and understanding;
- Support appropriate and effective care;
- Support leadership and governance; and
- Build capacity and capability.[12]

States and territories, which are at differing levels of system maturity, in turn have their own palliative care strategies and frameworks that seek to address the emerging needs for palliative care.

Thus, changes in the level of clinical awareness and public expectations are likely to increase the future demand for palliative care services.

As levels of public awareness increase, it is highly likely that a greater number of individuals and families will seek access to palliative care services, at earlier stages of disease progression and for a greater breadth of illnesses. Palliative Care Australia (PCA) and state and territory departments of health therefore consider that the demand for palliative care services will increase as the community gains a better understanding of the nature of the care provided, including issues such as advanced care planning.

Thus, further analysis was undertaken on specific ICD coding of available mortality data reported by the AIHW to identify the number and type of cases that *may be eligible* for future palliative care services.

Eligible cases were defined as individuals who were unlikely to experience sudden death, thus having sufficient time for referral to palliative care for appropriate end of life management.

These types of cases are also referred to as ‘anticipated deaths’ in the palliative care literature (Table 2-2).

Table 2-2: Potential referrals to palliative care for end of life management (2011)

BODY SYSTEM	% OF ALL DEATHS	MOST COMMON DISEASES	% OF ALL DEATHS
Cancer	29.76	*All forms*	*29.76*
Circulatory	10.39	*Chronic ischaemic heart disease* *Heart failure* *Cardiomyopathy*	*7.78* *2.00* *0.61*
Mental and behavioural disease	4.68	*Unspecified dementia* *Vascular dementia*	*3.85* *0.83*
Respiratory	3.97	*Chronic obstructive pulmonary disease* *Emphysema*	*3.56* *0.41*

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[12] AHMAC, National Palliative Care Strategy, 2010 – *Supporting Australians to Live Well at the End of Life*

BODY SYSTEM	% OF ALL DEATHS	MOST COMMON DISEASES	% OF ALL DEATHS
Endocrine	3.74	*Diabetes mellitus* *Other metabolic disorders*	*2.86* *0.88*
Nervous system	3.60	*Alzheimer's disease* *Parkinson's disease* *Systemic atrophies such as Huntington's disease and Motor Neurone Disease* *Demyelinating diseases of the central nervous system*	*2.03* *0.91* *0.55* *0.11*
Genitourinary	1.67	*Renal failure*	*1.67*
Digestive system	0.89	*Alcoholic liver disease* *Fibrosis and cirrhosis of liver* *Hepatic failure, not elsewhere classified*	*0.49* *0.24* *0.15*
Congenital/chromosomal	0.37	*Various*	*0.37*
Infectious/parasitic	0.31	*Sequelae of infectious and parasitic diseases* *Human immunodeficiency virus [HIV] disease* *Viral hepatitis*	*0.23* *0.06* *0.02*
Total (of all deaths)	59.38	*Total (of all deaths)*	*59.38*

Based upon current mortality data, almost two thirds of all Australians who die (59%) have the potential to benefit from palliative care services. If this estimate were applied to Australia in 2013, then at least 88,749 individuals might reasonably demand palliative care services each year.

2.2.2 INFLUENCES UPON ESTIMATION OF SERVICE DEMAND

Community demand for palliative care services is likely to be heavily influenced by levels of public awareness and expectations of service delivery. These issues are difficult to measure but, as previously noted, are likely to increase in future years.

Current attempts to estimate demand have been based upon the number of deaths in Australia where treating clinicians were likely to have had sufficient time to refer individuals (and their carers) for palliative care services. This, however, does not preclude the involvement of palliative care specialists in other end of life scenarios (e.g., palliation of comatose patients following stroke, withdrawal of life support etc.). Accordingly, current estimates of community demand are considered to be conservative and range from around 25% of all deaths,[13] to as high as almost 78%[14] of all deaths occurring in Australia.

Alternative approaches to estimating general community demand were also considered, such as estimation of the number of referrals for palliative care assessment.[15] This approach was not pursued for several reasons, namely that:

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[13] Department of Health and Ageing, Submission 96 (p.3) to the Australian Senate Community Affairs References Committee. Cited in: Commonwealth of Australia (2012) *Palliative care in Australia*, Canberra, Author.

[14] Rosenwax LK, McNamara, B, Blackmore, AM, and Holman CDJ. (2005). Estimating the size of a potential palliative care population. *Palliative Medicine, 19, 556-562.*

[15] Note that the number of referrals can still be used as one indicator of specialist demand as all specialist assessments billed on the MBS must be referred from another medical practitioner, which is estimated in later sections of the current chapter.

- The known availability of palliative care specialists will influence medical referral for services, particularly where there may be limited workforce, thus underestimating the true demand for services.
- Referrals for palliative care services (particularly in the community setting) may be received from a variety of sources, including patients and/or their carers or other non-medical professionals (e.g., nurses, allied health, other professionals). Thus the true underlying nature of demand (based upon knowledge and consideration of subsequent referral by members of the broader community) is virtually impossible to estimate in the absence of specific population studies.
- Palliative care may be provided by a range of medical practitioners who continue to manage their own patients whilst shifting the focus of service delivery to maintain patient comfort and quality of life (e.g., oncologists, GPs), without any specific referral to palliative care specialist services. Analysis of the supply of palliative care services in Australia would support this clinical approach for a notable proportion of patients receiving palliative care, and is discussed further in the following section.

Thus, estimation of the level of community demand based upon the proportion of patients with a classification of ‘anticipated’ death has remained as the most appropriate method of determining the potential population need for palliative care services.[16,17]

2.3 Supply of palliative care services

The supply (delivery) of palliative care services in Australia can be classified into four main areas, involving:

- GP services;
- Community palliative care services (including publically funded community hospices);
- Public hospital services (including available hospice/palliative care beds); and
- Private hospital services (including available hospice/palliative care beds).

2.3.1 NATIONAL ESTIMATES OF GENERAL PRACTICE ENCOUNTERS

Most patients requiring palliative care type services in the community present to a GP for treatment. Using data from the Bettering Evaluation and Care of Health Study (BEACH) from April 2009 to March 2012,[18] it has been estimated that a total of 204,000 (95%ci: 177,000-231,000) GP encounters occur each year relating to palliative care, representing around 0.17% (95%ci: 0.15-0.19) of all general practice visits.[19] Almost all (97%) palliative care encounters to general practice can be classified into four distinct groups (Table 2-3).

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[16] Ibid.

[17] McNamara, B, Rosenwax, LK, Holman, CDJ. (2006). A method for defining and estimating the palliative care population. *Journal of pain and symptom management, 32, 1,* pp. 5-12.

[18] Family Medicine Research Institute (2013). Bettering the evaluation and care of health: Palliative care in general practice, April 2009 – March 2012. School of Public Health, The University of Sydney.

[19] Data previously reported by the AIHW (2012, 2013), indicate a lower number of patients presenting to general practice from the BEACH data collection (e.g. 108,325; 95%CI 74,226-141,669 for the 2010-11 financial year). Following discussion with the Family Medicine Research Institute, it was considered that the definition of ‘palliative’ patients was too restrictive in these reports and would be more appropriately expanded to include the wider range of potentially ‘anticipated’ deaths seen by general practitioners (in accordance with recommended approaches in the peer-reviewed literature). Accordingly, more comprehensive search criteria were agreed and data was extracted and is reported on this basis.

Table 2-3: Classification of GP encounters for palliative care

REASON FOR ENCOUNTER	ESTIMATED % OF ENCOUNTERS
Neoplastic disease	84%
Organ failure	6%
Neurological disease	5%
Other signs and symptoms	2%

The ***six most common reasons*** for general practice visits accounted for around 60% of all palliative care encounters and included:

- Around 15% for cancer of the respiratory system, including:
  - 11% (23,000; 95%CI 17,000-30,000) for lung cancer, and
  - 3% (7,000; 95%CI 4,000-10,000) for other respiratory neoplasms;
- Around 13% (26,000; 95%CI 19,000-33,000) for bowel cancer;
- Around 11% (23,000; 95%CI 17,000-30,000) for prostate cancer;
- Around 8% (17,000; 95%CI 12,000-22,000) for breast cancer;
- Around 7% (14,000; 95%CI 0-34,000) for other female genital cancer; and
- Around 6% (13,000; 95%CI 8,000-18,000) for cancers of the digestive system.

GP visits for palliative care relating to ***organ failure*** included:

- Around 2% (4,000; 95%CI 1,000-6,000) for heart failure;
- Around 2% (3,000; 95%CI 1,600-6,400) for chronic obstructive pulmonary disease;
- Around 0.5% (1,000) for other respiratory disease; and
- Around 0.5% (1,000) for liver disease.

Palliative care visits relating to ***neurological disease*** included:

- Around 3% (7,000; 95%CI 4,000-10,000) for multiple sclerosis;
- Around 1% (2,000; 95%CI 0-4,000) for other neurological diseases;
- Around 0.5% (1,000) for stroke; and
- Less than 0.5% (1,000) for dementia.

Palliative care visits relating to ***other signs or symptoms*** included:

- Around 0.5% (1,000) for weakness;
- Around 0.5% (1,000) for limited functional ability; and
- Around 0.5% (1,000) for anaemia.

Available data suggests that the average length of community palliative care treatment is around 50 days,[20] and that GPs are likely to see palliative patients around four times each

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[20] This figure includes all phases of palliative care treatment delivered in an ‘ambulatory and community’ setting (classified as: stable, unstable, deteriorating, terminal, and bereaved) as presented in the six-monthly National Reports on Patient Outcomes in Palliative Care in Australia (PCOC), Available at: www.pcoc.org.au.

month during a typical palliative care treatment period.[21] Accordingly, based upon these data:

It is estimated that around 23,502 patients receive palliative care services from their GP per annum in Australia.[22]

BEACH data also indicates that around one in four patients (26%) presenting with a palliative care problem during a general practice encounter is referred for additional or alternative treatment. Of these referrals, the majority are made to allied health working in palliative care teams (61%), and medical specialists (24%), most of which were to oncologists (i.e. 52% of all medical specialist referrals).

On this basis it is estimated that around 17,392 patients may receive palliative care in general practice each year, without any involvement of other medical or palliative care specialists.

2.3.2 NATIONAL ESTIMATES OF OTHER COMMUNITY SECTOR ENCOUNTERS

Estimates of other community palliative care encounters are more difficult to ascertain. Moreover, a large proportion of community palliative care episodes are provided by non-medical clinicians, such as community nursing and other allied health professionals, working as part of designated regional palliative care teams. In this context, demand for medical specialist services is substantially lower than levels of demand in a hospital setting.[23] Shared care arrangements between regional palliative care teams and GPs are also more commonplace in the community setting.

The Palliative Care Outcomes Collaboration (PCOC) reports are the only national source of community palliative care episodes. Whilst this data is important to understand the nature of palliative care services provided across Australia, the absence of a baseline count of potentially eligible community palliative care services in Australia renders this data unreliable for estimating the total volume of services delivered in the community (as the percentage of all potential services reporting to the database cannot be established or used to estimate national community service demand). Having received multiple submissions and feedback from a range of palliative care patients, carers, service providers, health service managers, government and not for profit organisations, the Australian Senate Community Affairs Reference Committee investigation into Palliative Care Services in Australia (2012) noted the current lack of consistent national data collection for palliative care services across Australia, and specifically recommended:

"…the development and introduction of consistent national data collection specifically [to] provide for the recording and reporting of palliative care data."[24]

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[21] See for example: McKinley RK, Stokes T, Exley C, Field D. (2004). Care of people dying with malignant and cardiorespiratory disease in general practice. Br J Gen Pract.14:909–913.

[22] From a total average community period of palliative care totaling 49.9 days (PCOC Data reported by AIHW p.81: 22.6 days in 'stable' phase of treatment + 8.6 days in 'unstable' phase + 15.8 days in 'deteriorating' phase + 2.9 days in 'terminal' phase), divided by 5.75 days between visits (from 23 days divided by 4 visits on average in the community) = 8.68 average visits during treatment. 204,000 divided by 8.68 = 23,502 patients per annum.

[23] Recent data (2011-12) was made available from one jurisdiction (Victoria), which indicated that medical involvement occurred for only 0.5 percent of all community patient contacts (1,845/356,994).

[24] Commonwealth of Australia, (2012). Recommendation 4. p.46.

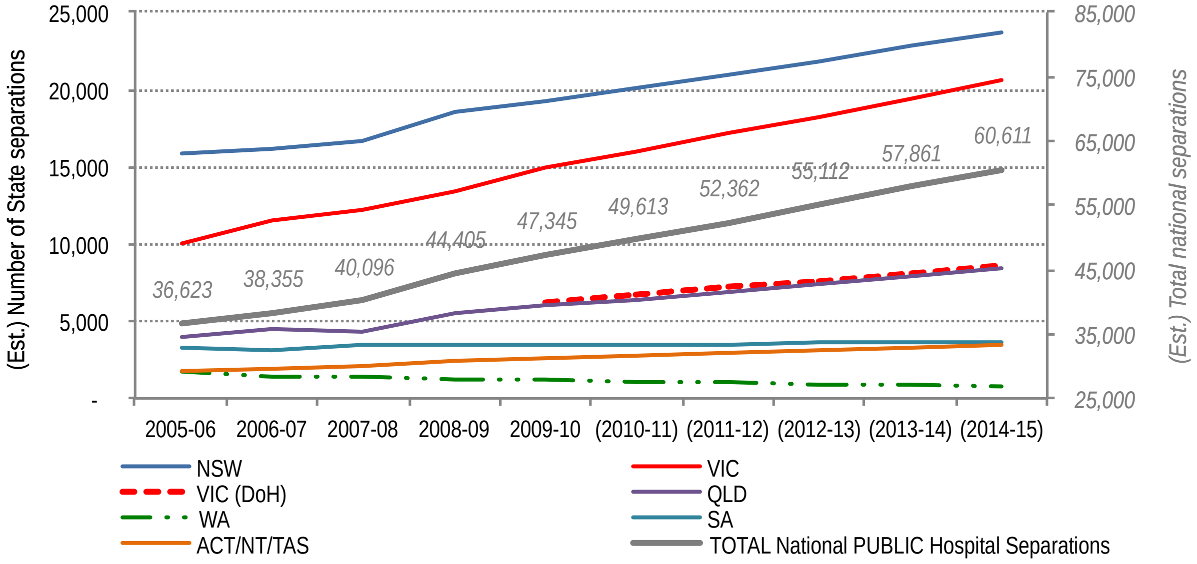
2.3.3 NATIONAL ESTIMATES OF PUBLIC HOSPITAL ENCOUNTERS

National estimates of public hospital encounters relating to palliative care have recently been published by the AIHW (2012, 2013), and are presented in Figure 2-3. Examination of public hospital supply of palliative care reveals an increasing number of separations between 2005-06 and 2009-10. Thus, based upon published data from the AIHW:

The number of palliative care related separations is forecast to increase from 49,613 in 2010/11 to at least 60,611 patients per year by 2014/15.

The increasing supply of public hospital palliative care services can be seen across all Australian jurisdictions with the exception of Western Australia, which has a higher relative proportion of community palliative care service provision (compared with public services within the same state) as discussed further in the following sections.

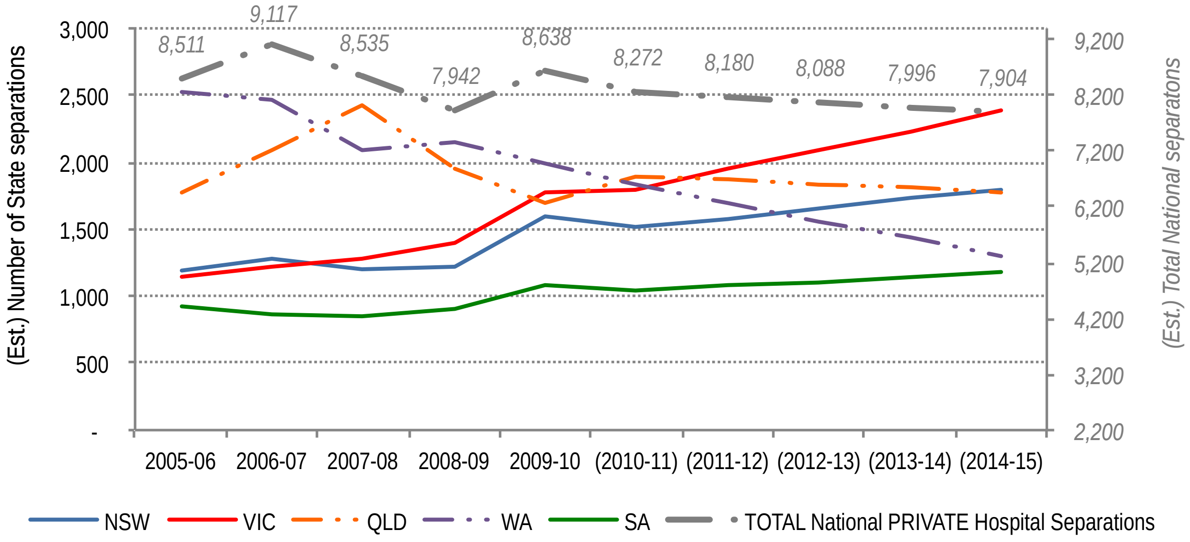
Figure 2-3: Number of public hospital palliative care separations (2006-2015)



2.3.4 NATIONAL ESTIMATES OF PRIVATE HOSPITAL ENCOUNTERS

National estimates of private hospital encounters relating to palliative care have also recently been published by the AIHW (2012, 2013), and are presented in Figure 2-4.

Figure 2-4: Number of private hospital palliative care separations (2006-2015)



Private sector provision of palliative care services varies between the jurisdictions. A rising pattern of supply is forecast for VIC, NSW and SA. By contrast, the proportion of private sector palliative care services is predicted to further decline for WA and QLD. In the latter cases, it is known that a high quality community-focused approach to service delivery is implemented in WA. The picture in QLD is harder to interpret. A number of private hospitals provide palliative care services to public patients in QLD. Whether this results in a decision to admit individuals as public patients to these facilities (rather than as private patients where potential may exist to do so) remains unknown. Private sector data for the remaining jurisdictions (TAS, ACT, NT) is not reported by the AIHW. Thus based upon the current data:

The overall proportion of private hospital separations related to palliative care is forecast to gradually decline over the next three years (to 2014-15).

Precise estimation of the actual number of private hospital separations is not currently possible, given the absence of data from jurisdictions with smaller populations.

2.3.5 INFLUENCES UPON ESTIMATION OF SERVICE SUPPLY

It is important to note that the methods used to define palliative care separations by the AIHW have been questioned by some jurisdictions, despite having received approval from the AIHW Palliative Care Working Group prior to implementation. The controversy is best illustrated by examining data from Victoria (red lines) in Figure 2-3.

AIHW estimates indicate that in 2010/11 there were approximately 16,047 public hospital separations in Victoria relating to palliative care (solid red line). Independent data from the Victorian Department of Health (2013) officially recorded 7,269 public hospital separations during the same period; approximately 45% of the AIHW estimates (broken red line). This example illustrates how differences in the definition and counting of palliative care patients impacts upon estimates of demand.

State estimates (like those in Victoria) define and count patients according to the ‘care type’ received during hospital admission. Given that differences exist between jurisdictions in counting of care type, the AIHW also decided to include patient episodes that had an identified care type and/or a principle and/or *additional*[25] diagnosis relating to palliative care during their hospital stay, *regardless of whether they were admitted or changed*[26] *to a palliative care type of patient prior to hospital separation.* However, as can be seen from Figure 2-5, the proportion of cases identified using 'care type' differs across Australian jurisdictions, with 100% of current cases in Queensland and Western Australia counted by care type only. By contrast around 40% to 50% of cases are comprised of care type records in other jurisdictions

Another concern in relation to the AIHW estimates relate to jurisdictions where the proportion of palliative care services is higher in the community relative to the hospital setting. Some jurisdictions such as Western Australia have a highly developed and well-funded community palliative care sector (with comparatively fewer patients admitted directly to hospital for palliative care). By contrast other states, such as Queensland, have very limited community resources, resulting in a relatively higher proportion of hospital admissions.

> ***"The resources in Queensland in terms of specific community based palliative care are very limited. It is probably a differential of about 1000 per cent …in comparison to what is provided in Western Australia."***[27]

In addition, the mix of public and private services provided in different jurisdictions varies, especially in relation to palliative care type patients. For example, a higher proportion of public patients are treated in private hospitals in Queensland and the Australian Capital Territory. The implication of these 'outsourced' services upon potential differences in patient admission and data-coding practices within and between jurisdictions remains unknown. Most importantly however:

> ***Current demand estimates for hospital based palliative care services are based upon the number of patient separations and not the number of unique patients admitted to those services.***

Whilst it is appreciated that individuals may receive multiple admissions to hospital, particularly in the final months of life, analysis of the number of individual patients has not been reported, as it is not specifically recorded in Australian National Hospital Minimum Dataset (upon which all AIHW estimates are based).[28] This may result in a level of over-estimation of palliative care patients treated in public and private hospitals. More recent research indicates that:

> ***Individual patients may be admitted to hospital approximately 7.8 times on average during the final 12 months of their lives. However, the number of admissions varies considerably (median = 4) and has not been specifically analysed in the context of whether such patients were receiving formal palliative care services.***[29]

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[25] Coding instructions now require any 'diagnosis' of palliative care to be classified as an additional, rather than a primary diagnosis. See: AIHW (2012,2013) Appendix A for a summary of the methodology used. A fuller description of the methodology used is published in Australian Institute of Health and Welfare (2011). *Identifying admitted patient palliative care hospitalizations: technical paper*. Cat. No. HWI 113. Canberra. AIHW.

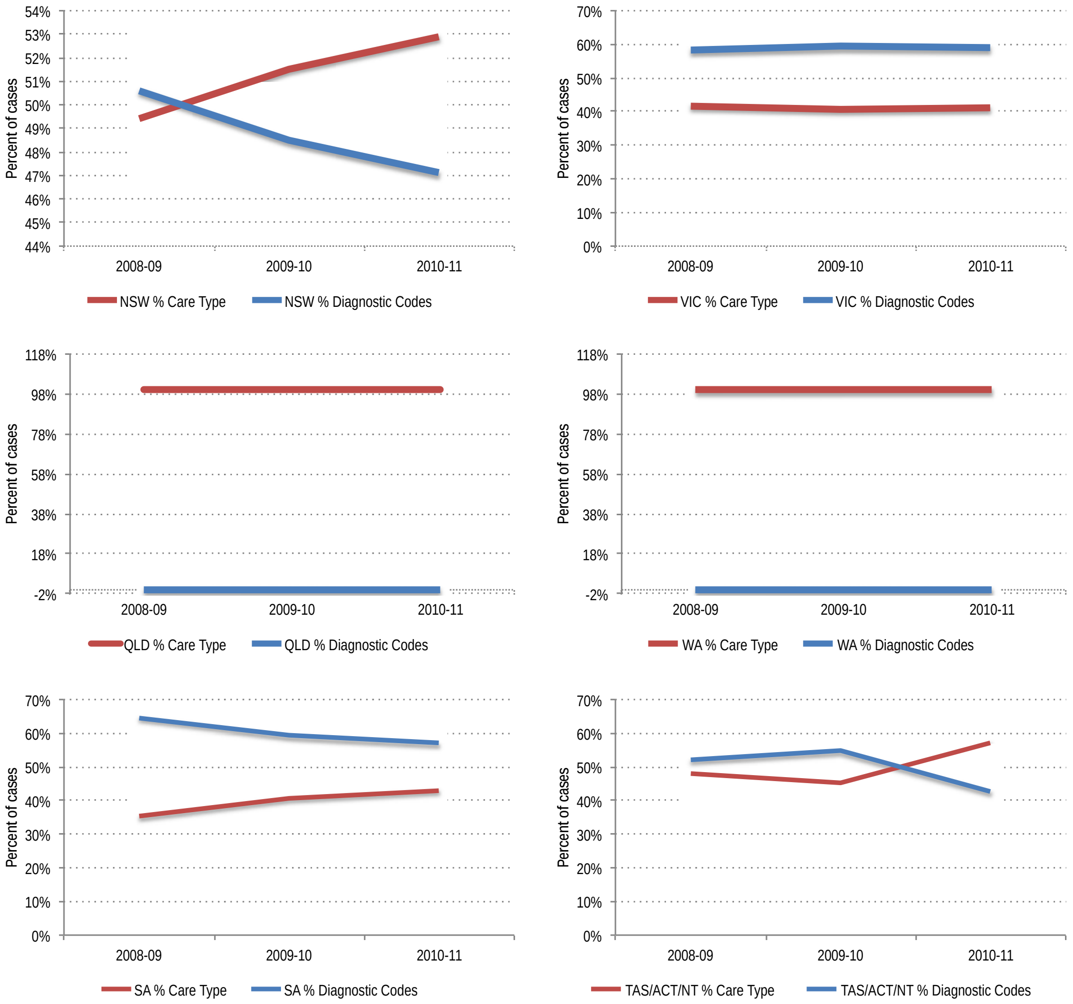
[26] Changes in care type during a hospital stay are known as 'statistical separations'.

[27] Palliative Care Queensland, Submission 130, p.3. to the Australian Senate Inquiry (Commonwealth of Australia, 2012).

[28] AIHW (2012, 2013).

[29] Rosenwax, LK, McNamara, BA, Murray, K, McCabe, RJ, Aoun, SM, and Currow, DC (2011). Hospital and emergency department use in the last year of life: a baseline for future modifications to end-of-life care. Med J Aust; 194 (11): 570-573

Figure 2-5: Differences in care types and diagnostic codes between jurisdictions



However, current estimates of demand were not adjusted, as sufficient information was not available at a national level to determine the specific number of presentations per patient. Regardless of the number of actual presentations per patient, however, current estimates were considered to reflect real demand for palliative care services at the current point in time, given the relative maturity of the palliative care sector across Australia.

Taking all these issues into account, AIHW estimates were considered to be the only national indicators of service supply, and were thus used for analysis. However, some caution must be applied when interpreting jurisdictions with a higher proportion of community and/or privately provided palliative care services (e.g., Western Australia).

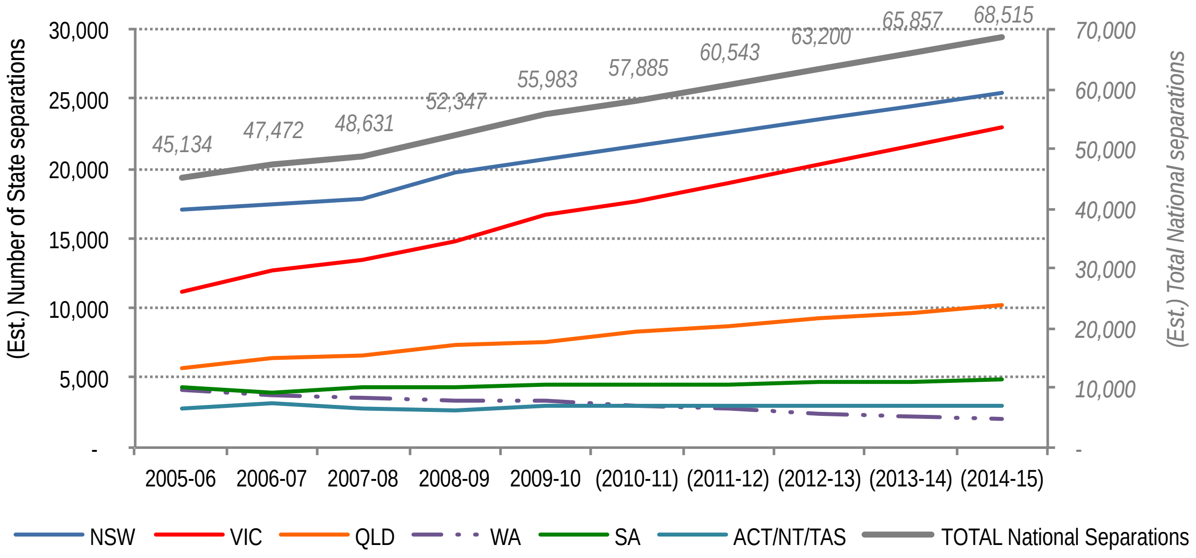
2.4 Unmet demand for palliative care services

National estimates of unmet demand were examined in three stages. First, the total number of public and private hospital separations relating to palliative care was examined against the number of deaths reported annually. Second, the aged-standardised rate of hospital separations was examined to determine whether the increasing age and overall size of the Australian population was impacting upon service supply (delivery). Finally, the number of estimated palliative care patients treated in hospitals and the community were compared with the number of those who may be potentially eligible for palliative care services (anticipated deaths) to estimate any potential gaps in service delivery to the community.

2.4.1 TOTAL NUMBER OF HOSPITAL SEPARATIONS

The combined number of public and private hospital palliative care separations published by the AIHW (2012, 2013) was calculated and future trends were forecast for a further five years to the end of 2014-15. Historical data and future estimations are presented in Figure 2-6.

Figure 2-6: Number of public and private separations for palliative care (2006-2015)



The total national supply of hospital services relating to palliative care is forecast to increase considerably from 55,983 (in 2009-10) to around 68,515 (by the end of 2014-15).

National supply is driven mainly by the most populous states (NSW, VIC, QLD). The overall supply of services from SA is forecast to remain stable. This may be due in part to an expansion of case-mix type funding for services into the community sector.[30] Supply in the smaller jurisdictions is also predicted to remain relatively stable or decrease slightly over the forecast period. Although public hospital data for these jurisdictions predicts an overall increase, private and community sector data are unavailable and thus further interpretation is impeded. Overall decreases in supply for WA has been previously discussed and are related to the highly developed and well-respected community service model of care operating in that jurisdiction.[31]

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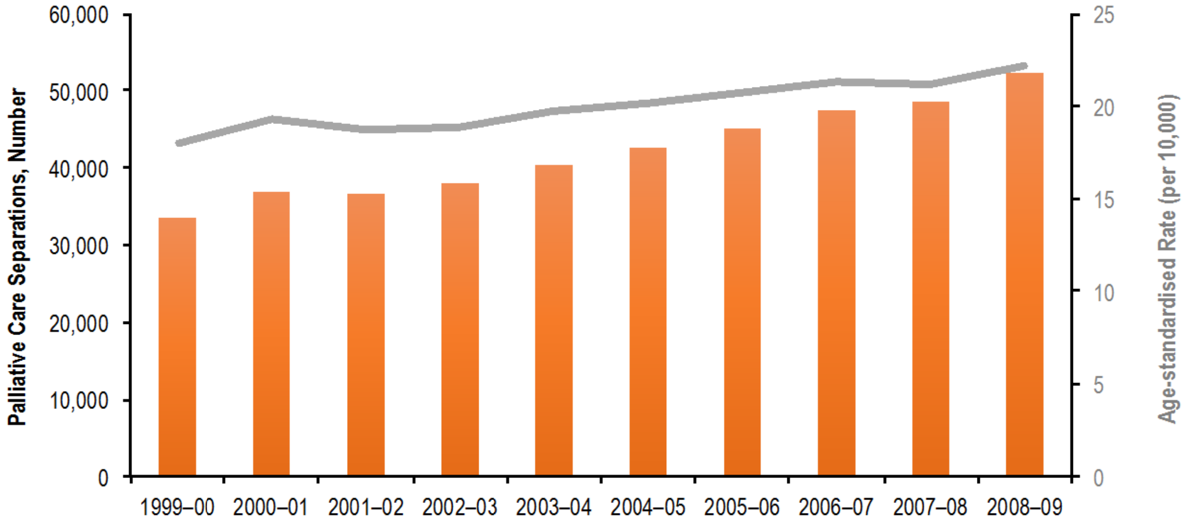
[30] Commonwealth of Australia (2012). p.53.

[31] Ibid. pp. 49-50 and 101-104.

2.4.2 INFLUENCES OF POPULATION GROWTH AND AGEING

Age standardised rates of all palliative care separations were then identified across all public and private hospitals. These have been reported to increase between 2000-01 and 2009-10 (Figure 2-7).[32]

Figure 2-7: Palliative Care Separations, all hospitals (1999/2000 to 2008/2009)



The aged-standardised population rates of palliative care separation from public and private hospitals across Australia indicate a rising trend over the first decade of the 21st century. On the basis of this trend the AIHW has concluded that,

> ***"…there was a 'real' increase in the number of admitted patient palliative care separations that goes beyond the increase explained by population growth and an ageing population."***[33]

Thus, changes in specialist availability, clinical training and awareness of other clinical professionals, together with possible improvements in public knowledge about palliative care services, have contributed to an increase in overall supply – above and beyond what may otherwise have been expected by natural population growth or an ageing population.[34]

2.4.3 ESTIMATIONS OF CURRENT AND FUTURE DEMAND VERSUS SUPPLY

Finally, comparisons were undertaken against the estimated population eligibility/demand for palliative care services (Section 2.2), and the current supply of services provided from general practices, and hospital facilities, outlined in Section 2.3 (Figure 2-8).

It should be noted that some discrepancy in the supply of services might be inherent in the available data (due to the absence of private hospital statistics from some jurisdictions and absence of comprehensive community palliative care data). Notwithstanding, it was assumed that most individuals referred to community services would have accessed these

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[32] Reproduced directly from AIHW (2012) p.25.

[33] Ibid. p.21.

[34] The precise contribution of any of these (or other) proposed predictors of increased supply are not able to be determined from currently available data.

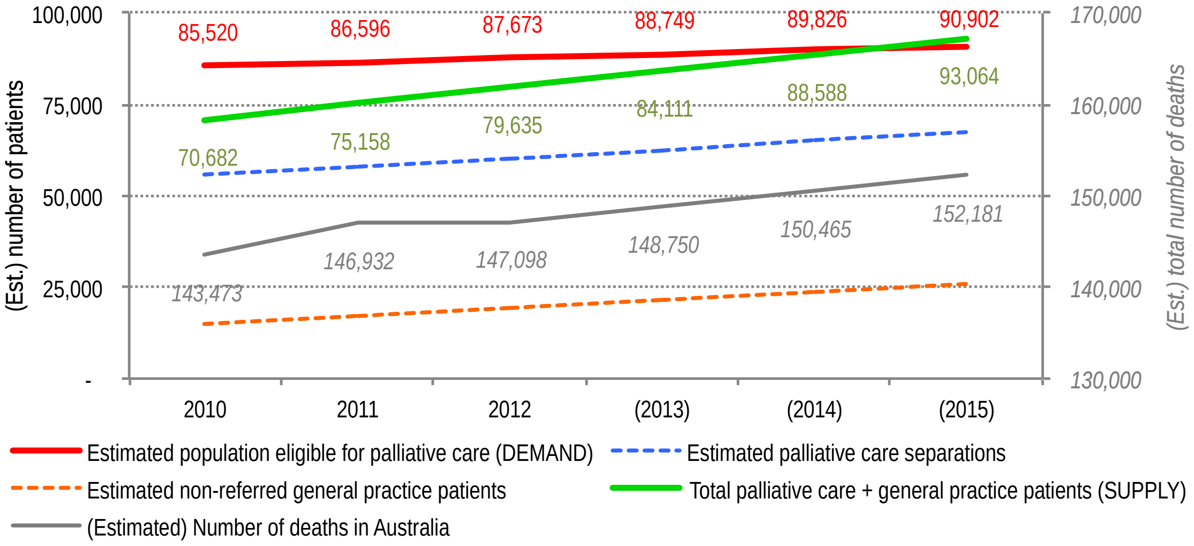
services from existing community resources (GPs or public hospitals) prior to referral.[35] It is also critical to note that:

Hospital separations relating to 'palliative care' as currently reported, do not guarantee that services were supplied to individuals by medical specialists (or other clinicians) who were appropriately qualified and credentialed to deliver palliative care services in accordance with professional and nationally recognised standards of care.[36]

Similarly, estimates of service demand are based upon analysis of available ICD codes in Australian mortality data. The availability of more recent data, or alternative assumptions regarding the proportion of potentially eligible patients for palliative care, will influence conclusions based upon the data presented in Figure 2-8. Notwithstanding these considerations:

Raw estimates of service supply and demand appear to indicate that the supply of services is below, but growing to meet predicted population demand for palliative care services in Australia.

Figure 2-8: Average total demand and supply of palliative care services (2010-2015)



Analysis of variations associated with forecast modelling equations strengthen conclusions that the total volume (not quality) of services may have already been meeting population demand since 2010, and is likely to have matched demand by the end of the 2013 financial year (Figure 2-9).[37]

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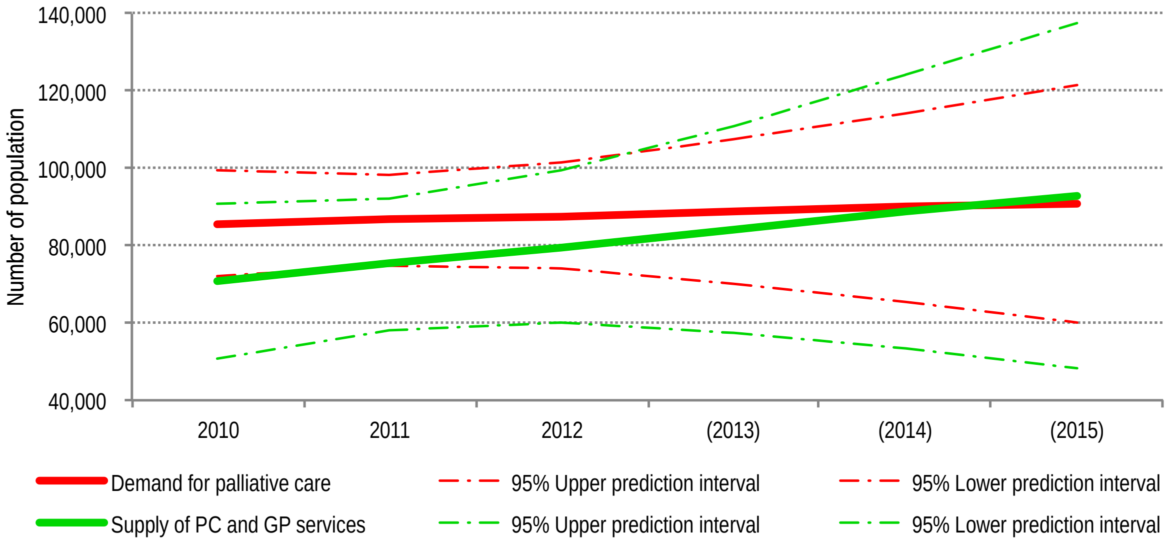
[35] Thus, those who self-refer to community palliative care services (without prior general practice consultation) are excluded from the estimation.

[36] These issues are presented and discussed in the subsequent chapter of this report.

[37] Based upon examination of overlapping prediction intervals. (NB: Confidence intervals relate to probable variations surrounding point estimates of data such as means/averages, whereas prediction intervals relate to the variation surrounding estimates derived from a prediction equation).

Figure 2-9: Linear variation in demand/supply of palliative care services (2010-2015)



2.5 Demand for specialist palliative care services

2.5.1 NATIONAL ESTIMATES OF GP REFERRAL TO SPECIALISTS

As previously reported, around a quarter of all palliative care patients who are managed in general practices are referred to other services, however:

Only one in twenty palliative care patients (6%) presenting to a general practice are referred to medical specialists.[38]

Around half of all specialist medical referrals are made to oncologists. Specific referrals to palliative care specialists are not reported in the BEACH data. In addition, the available data does not indicate whether patient referrals are made to specialists in public facilities or private consulting suites.

2.5.2 NATIONAL ESTIMATES OF OTHER REFERRALS TO SPECIALISTS

In the public and private hospital sector, a range of different specialist and non-specialist medical practitioners address the needs of patients with palliative care related problems. Whilst patients admitted or transferred to a palliative care stream (care type) may be more likely to receive services by a palliative care specialist, the larger proportion of patients receiving a diagnosis of or otherwise classified as 'palliative care' in current national data collections may receive medical care from any other type of medical practitioner – with or without a corresponding referral for palliative care specialist involvement. Accordingly:

It is not possible to estimate the number of specific referrals to palliative care specialists in public and private hospitals across Australia from the available data.

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[38] BEACH – op cit

2.5.3 INFLUENCES UPON ESTIMATION OF DEMAND FOR SPECIALIST SERVICES

Estimates of demand for specialist services are likely to be influenced by a number of issues, including:

- Constraints upon general practice referral: It is appreciated that the number of referrals from GPs for specialist assessment will be heavily influenced by the known availability of specialists and anticipated time to treatment for patients. Thus, current demand may also be constrained by supply. Referrals to palliative medicine specialists were not included in the BEACH data. Accordingly, it is highly likely that an increase in the supply of palliative medicine specialists may also generate demand for services (supply induced demand);
- Constraints upon public and private sector referral to specialists: public and private sector medical practitioners encounter similar issues to those faced by GPs. Specialists base referrals upon the availability of palliative care specialists and the likely time it may take to receive an assessment for any given patient. Accordingly, if more palliative care specialists are available in the public and private sectors, a higher number of referrals may be anticipated (supply constrained demand); and
- Exclusion of demand arising from other sources of referral: As previously identified, individuals may present for community palliative care services on a 'self-referred' basis, rather than presenting to their GP. Further, other medical specialists may also refer for palliative medical specialist assessment. Data on self-referrals was not available for analysis, and thus additional demand for specialist services is likely.

2.6 Supply of specialist palliative care services

2.6.1 NATIONAL ESTIMATES OF PRIVATE SECTOR SPECIALIST ASSESSMENTS

MBS data indicates that 138 palliative care specialists were registered and billing the MBS in 2012-13. Analysis of this data revealed that:

Palliative care specialists will have conducted 15,932 referred hospital/consulting room or home/residential aged care assessments.[39]

Importantly, (based upon current rates of growth) the total number of private palliative care assessments is forecast to increase to around 19,419 by 2014-15.

2.6.2 NATIONAL ESTIMATES OF PUBLIC SECTOR MEDICAL ASSESSMENTS

National estimates of public sector medical assessments undertaken by palliative care specialists are currently unavailable. Accordingly, based upon a limited number of key assumptions (outlined below) they were derived from available MBS data.

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[39] MBS item 3005,110, 132 or 3018

In relation to the palliative care *specialist workforce,*[40] it was assumed that:

- The current membership of 243 Australian fellows (in 2012-13) were working a Full Time Equivalent (FTE) of 140 positions across Australia;[41]
- The total FTE workforce would equate to 206,388 hours of employment across the private and public sector each year in Australia.

Where specialists were undertaking *private sector employment* in a hospital, hospice, residential aged care or other community environment, it was assumed that (on average):

- One hour of time was devoted on average to each initial attendance conducted by a palliative care specialist registered on the MBS (billed under items 3005, 110, 132, or 3018);
- Half an hour of time was devoted on average to each subsequent attendance conducted by a palliative care specialist registered on the MBS (billed under items 3010, 116, 133, or 3023);
- All private sector work was ‘patient related’ and thus would represent 100% of clinical time spent in private sector employment.

Counting of recorded (and forecast) MBS data for the 2012-13 financial year according to these assumptions would result in 46,219 hours of patient attendance.[42] These hours represented 22% of FTE employment across the fellowship.[43]

Where specialists were undertaking *public sector employment* in a hospital, hospice, residential aged care or other community environment, it was assumed that (on average):

- All remaining FTE employment (78%) would be spent in the public sector;
- Around 70% of all public sector work was ‘patient related’, to account for time spent in administration (1 session), clinical teaching (1 session), and research or continuing professional development (1 session);[44] and
- The ratio of initial-to-subsequent attendances would be equivalent to those spent in the private sector (even though the time allocated to each type of attendance may be subject to greater variation); accordingly:

The number of palliative care specialist assessments in the public sector was estimated to be around 36,648 per annum[45]

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[40] Presented in further detail in Chapter 4 of this report.

[41] Based upon current membership data provided from the Chapter of Palliative Medicine excluding retired, semi-retired, resigned or suspended fellows (Royal College of Physicians), and a fellowship to FTE ratio of 57.8% previously reported by the Chapter to the Australian Medical Council (180 Australian Fellows: 104 FTE positions). Australian Medical Council. (2005). *Assessment of palliative medicine as a medical specialty: Recognition of medical specialties advisory committee Report.* ACT; Kingston, AMC Inc. p.28.

[42] Derived from 15,932 initial attendance items x 1 hour, and 60,574 subsequent attendance items x 0.5 hours.

[43] 46,219 divided by 206,388.

[44] Australian Medical Council (2005). p.15. Makin, W, Finlay, IG, Amesbury, B, and Naysmith, A. (2000). What do palliative medicine specialists do? *Palliative Medicine, 14,* 405-409.

[45] From ((15,932 private MBS initial attendances x 0.7761 percent of residual FTE) divided by 0.2239 FTE in the private sector) x 0.70 percent of time spent in clinical practice. (Note: multiple decimal places have been rounded in the cross multiplication for illustrative purposes in the method of calculation.)

2.7 Potential unmet demand for specialist services

If it were accepted (based upon prior assumptions and available data) that the actuals or estimates are a reasonable reflection of the demand and supply of palliative care services across Australia, then at the end of the 2012-13 financial year:

- At least 88,749 Australians may have benefited from palliative care specialist intervention (a probable under-count of true demand) (Page 29);
- Around 15,932 Australians received one or more palliative care specialist assessment in private hospitals (a probable over-count of actual supply) (Page 34); and
- Around 36,648 Australians received one or more palliative care specialist assessments in public hospitals (a probable over-count of actual supply) (Page 35).

This in turn means that:

At least 34,169 Australians who may have benefited from specialist palliative care intervention in 2012-13 did not receive these services.

Whilst it is acknowledged that GPs and other specialists may be managing patient palliation, their clinical training and available time to address all facets of end-of-life care is difficult to identify. Accordingly, at a minimum it is reasonable to assume that more than one in three Australians (39%) may die each year without appropriate specialist support for end of life management.

When GP management of an estimated 17,392 palliative care type patients is factored into consideration it would appear that at best:

Around one in five Australians (19%) may die each year without any appropriately qualified medical support for end of life management.

2.8 The consequences of unmet demand

2.8.1 GENERAL CONSIDERATIONS

The consequences of unmet demand for palliative care services in general, and palliative care medical specialist services in particular, are extremely difficult to measure. First, it is virtually impossible to place a value on the full range of potential services provided to maximise quality of life for individual patients and carers facing an illness with little or no prospect of cure. Aside from self-reported outcomes described by consumers of palliative care services, some measure of service 'utility' would appear to be appropriate (e.g., quality adjusted life years or quality adjusted life days depending upon the duration of a given illness). Unfortunately, these studies are not available in the palliative care literature. Even if such studies were undertaken, it should also be noted that a great deal of clinical and academic controversy surrounds the use of utility-based outcome measures.[46]

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[46] For example, whilst conceptually appealing from a measurement perspective, the method of obtaining utility weights (e.g., time trade off, standard gamble or other approaches) rarely occurs in a context where individual 'preferences' for living under a range of clinical scenarios are determined by individuals who have personally experienced the full range circumstances they are asked to make judgments about. Moreover, individual preferences for continuing to survive under a particular set of circumstances can readily change (either for or against historical personal judgments) when individuals actually experience a situation that they have previously only hypothetically contemplated. Randomized, longitudinal methods to track variations in preference for living under dynamically changing circumstances are required (across a range of individual disease states) before

A second, and equally challenging task, is the difficulty distinguishing the 'relative contribution' of palliative care medical specialists to the outcomes achieved by a range of different service providers and clinical interventions. Palliative care by definition is delivered in a multi-disciplinary context. Whilst the outcomes associated with specific procedural, pharmacological, psychosocial, or spiritual interventions can theoretically be independently assessed; the capacity to attribute any single intervention to an overall patient outcome (e.g. chronic pain management) remains difficult.

Thus, what remains is an attempt to identify more general estimations of the potential financial benefits associated with the delivery of palliative care (as a package of services) across a range of different clinical contexts. Limited research has been presented in this area. Where the financial benefits of alternative/substitutable contexts for clinical service delivery have been undertaken, they indicate that palliative care, particularly when delivered in a community setting, can prevent the number and duration of hospital admissions for palliative care patients[47] – and accord with the 72% or more of individuals who wish to die in their usual place of community residence.[48,49,50] Thus, palliative care would appear to be more cost-effective and acceptable to consumers, especially when delivered in a community context. Importantly, no research examining these issues has been identified in the Australian context.

2.8.2 COST MODELLING IN THE AUSTRALIAN CONTEXT

The most apparent gap in the available literature is any attempt to cost model the potential impact of palliative care service provision in Australia. The following assumptions were used to estimate the cost implications of increasing the number of palliative care services in the Australian community to prevent 'potentially avoidable' admissions for patients who currently die in hospital from an 'anticipated' death.

Assumptions for cost modelling

1. That the majority of individuals who have a choice will choose to die at home.[51]
2. That 42% of palliative care patients in hospital died during one of their admitted episodes.[52]
3. That 100% of all admitted palliative care patient deaths occur in the final two phases of direct patient care, more specifically:[53]
    a. 14% of admitted patients die during the 'deteriorating' phase of their illness; and
    b. 86% of admitted patients die during the 'terminal' phase of their illness.
4. That the aggregate length of hospital stay is 7.3 days during the final two phases of palliative care patient treatment, more specifically:[54]

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the value of any utility based measures can be appropriately understood and considered reliable and valid for incorporation into routine palliative care outcome research.

[47] Smith, S, Brick, A, O'Hara, S, and Normand, C. (2013). Evidence on the cost and cost-effectiveness of palliative care: a literature review. *Palliative Medicine, 0,* pp.1-21.

[48] Carroll, D. (1998). An audit of place of death of cancer patients in a semi-rural Scottish practice. *Palliative Medicine, 12,* pp.51-53.

[49] Tiernan, E, Connor, M, Kearney, P, and O'Siorain, L. (2002). A prospective study of preferred versus actual place of death among patients referred to a palliative care home-care service. *Irish Medical Journal, 95 (8),* pp.232-235.

[50] Tang, S, and McCorkle, R. (2003). Determinants of congruence between the preferred and actual place of death for terminally ill cancer patients. *Journal of Palliative Care,* 19 (4), pp.230-237.

[51] Commonwealth of Australia (2012); Carrol (1998); Tiernan et al (2002); Tang & McCorkle (2003).

[52] AIHW (2012) applying the rate of increase in palliative patient deaths in hospital over 10 years from 23.3% in 2000-01 to 37.3% in 2009-10 (an average increase of 1.4%) to the estimated percentage in 20120-13 = 41.5 (42% rounded).

[53] From National Report on Patient Outcomes in Palliative Care in Australia: July – December 2012, pp. 36-37. Available at: www.pcoc.org.au.

[54] Ibid. p.33.

   a. 5.2 days in hospital are spent on average by palliative care patients classified as ‘deteriorating’ during their admission; and
   b. 2.1 days in hospital are spent on average by palliative care patients classified as ‘terminal’ during their admission.

5. That the total number of estimated deaths in hospital is 59%, in line with previously identified criteria[55] (sensitivity testing will need to be conducted across the range of potentially ‘anticipated’ deaths reported by different medical, government and academic sources).
6. That the average cost per day for treatment of palliative care patients is:[56]
   a. Around $950 for admitted patients; and
   b. Typically around $269 for individuals treated in the community.
7. That the odds of dying in the community (rather than in hospital) are increased 7 fold if specialist palliative care services are provided in the community.[57] This equates to an 87.5% chance of individuals who, if appropriately treated in the community, could be diverted away from a hospital admission during these last phases of palliative care treatment.
8. That conversely, 12.5% of patients treated in the community are likely to die in an admitted patient setting. Thus in order to achieve an increase in community treatment of 10%, 11.5% (10% + 1.25%) of palliative care patients would need to be identified and referred for community management.
9. That additional palliative medicine specialist time will be spent with a larger proportion of community patients in the final stages of their illness trajectory, totalling $257.71 per patient, comprised of:
   a. Around 1 initial attendance (at an average cost across all current MBS item numbers of $136.72) will occur per patient in the community; and
   b. Around 2 subsequent attendances (at an average cost across all current MBS item numbers of $60.50).
10. That between 10% and 20% of ‘anticipated deaths’ can be identified and referred for shared care arrangements between GPs or other specialists and palliative medicine specialists (working as part of a multidisciplinary palliative care team) in the community – thus avoiding ‘potentially preventable’ hospital admissions towards the final stages of palliative care treatment.[58]

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[55] Outlined in Table 2-2.

[56] Commonwealth of Australia (2012) p.67 for estimates of state based palliative care beds; AMC (2005) which estimates the full cost of community services to be $210 per day p.41 (indexed to 2012/13 at 28.8% increase from 75.8 in June 2005 to 104.6 in December 2012 = $269 per day). Health indexation according to Australian Bureau of Statistics (2013) Catalogue 6401.0, Consumer Price Index, Australia.

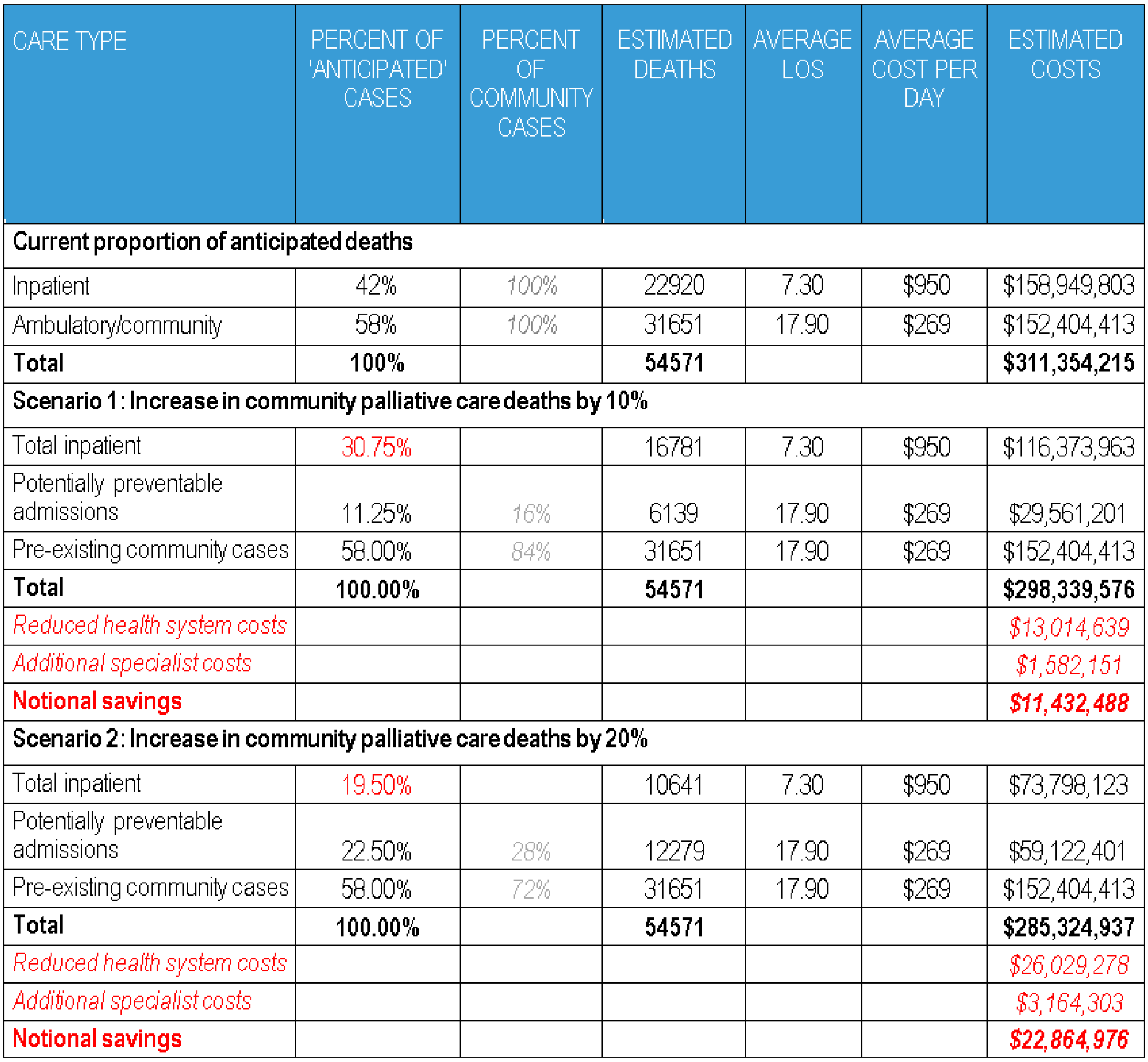
[57] McNamara, B, and Rosenwax, B. (2007). Factors affecting place of death in Western Australia. *Health and Place*, *13*, 356-367.

[58] See 2.3.1 for the total estimated number of 17,392 patients currently seen by general practitioners without any referral for specialist palliative medicine intervention.

Estimates of cost modelling

Estimates of the cost impact of increasing the proportion of community referrals to palliative medicine specialists according to the assumptions outlined above are presented in Table 2-4.

Table 2-4: Cost implications of increasing potentially avoidable palliative care deaths in hospital (2012-13 financial year estimates)



CARE TYPE	PERCENT OF 'ANTICIPATED' CASES	PERCENT OF COMMUNITY CASES	ESTIMATED DEATHS	AVERAGE LOS	AVERAGE COST PER DAY	ESTIMATED COSTS
Current proportion of anticipated deaths						
Inpatient	42%	*100%*	22920	7.30	$950	$158,949,803
Ambulatory/community	58%	*100%*	31651	17.90	$269	$152,404,413
Total	**100%**		**54571**			**$311,354,215**
Scenario 1: Increase in community palliative care deaths by 10%						
Total inpatient	30.75%		16781	7.30	$950	$116,373,963
Potentially preventable admissions	11.25%	*16%*	6139	17.90	$269	$29,561,201
Pre-existing community cases	58.00%	*84%*	31651	17.90	$269	$152,404,413
Total	**100.00%**		**54571**			**$298,339,576**
Reduced health system costs						*$13,014,639*
Additional specialist costs						*$1,582,151*
Notional savings						***$11,432,488***
Scenario 2: Increase in community palliative care deaths by 20%						
Total inpatient	19.50%		10641	7.30	$950	$73,798,123
Potentially preventable admissions	22.50%	*28%*	12279	17.90	$269	$59,122,401
Pre-existing community cases	58.00%	*72%*	31651	17.90	$269	$152,404,413
Total	**100.00%**		**54571**			**$285,324,937**
Reduced health system costs						*$26,029,278*
Additional specialist costs						*$3,164,303*
Notional savings						***$22,864,976***

Thus, an increase in referral to specialists (working as part of a multi-disciplinary palliative care team) is likely to result in a notional cost saving to the health system of up to $22,864,976 - if 20% more patients receive the final two phases of their palliative care in the community setting.

These figures are based upon prior assumptions that up to 59% of all deaths occurring in Australia can be ‘anticipated’ and thus referred for specialist assessment and intervention. It is important to note, that the proportion of ‘anticipated’ deaths occurring and thus eligible for referral to specialists varies according to different palliative care stakeholders. Accordingly, sensitivity testing that examines the likely proportion of potentially eligible referrals to specialists was conducted and is presented in Table 2-5.[59]

Table 2-5: Variation in estimates of 'anticipated' deaths in Australia

NATIONAL ESTIMATES (POTENTIAL REFERRAL)	% 'ANTICIPATED' DEATHS IN AUSTRALIA	TOTAL ESTIMATED COSTS	TOTAL NOTIONAL SAVINGS (10% REDUCTION IN ADMISSIONS)	TOTAL NOTIONAL SAVINGS (20% REDUCTION IN ADMISSIONS)
DoHA 2012 lower estimates	24.90%	$130,583,122	$4,794,828	$9,589,656
Rosenwax et al 2005 lower estimates	44.00%	$230,749,292	$8,472,789	$16,945,577
DoHA 2012 upper estimates	48.17%	$252,618,032	$9,275,778	$18,551,556
Current estimates	59.37%	$311,354,215	$11,432,488	$22,864,976
AChPM 2005 lower estimates	70.00%	$367,101,146	$13,479,437	$26,958,873
AChPM 2005 upper estimates	75.96%	$398,357,187	$14,627,114	$29,254,229
Rosenwax et al 2005 upper estimates	78.00%	$409,055,563	$15,019,944	$30,039,887

Analysis of stakeholder estimation in relation to the proportion of potentially eligible referrals to palliative care (and by inference palliative care specialists) varies considerably. The Department of Health and Ageing, in a report to the Senate Inquiry into Palliative Care in Australia, indicated that between 25% and 48% of all deaths in Australia.[60] In applying for recognition as a medical specialty the Australasian Chapter of Palliative Medicine (AChPM) estimated a higher proportion of potential referrals, ranging from 70% to 76% of all deaths occurring in Australia. Population based research confirms that the potential range of eligible individuals for referral to palliative care services is indeed broad, ranging from around 44% up to a potential 78% of all deaths in Australia.[61] Therefore:

Current estimates of the number of potentially 'anticipated' deaths in Australia reflect an appropriate mid-point estimate of the likely number and cost savings associated with increasing the proportion of community referrals to palliative medicine specialists in Australia.

The following chapter now describes the available evidence relating to the quality, safety and clinical effectiveness of palliative care services, and where possible the contribution of palliative care medical specialist interventions.

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[59] Calculations underlying these changes in assumption are presented in Appendix 1.

[60] The Commonwealth of Australia (2012) p.10.

[61] Rosenwax et al (2005).

3 The clinical safety and effectiveness of interventions

3.1 Palliative care

Palliative Care is the physical, emotional, psychosocial and spiritual care given by a multidisciplinary team to patients with life-threatening illnesses and their families.[62] The aim of such care is to improve quality of life and prevent/relieve suffering by early and accurate assessment and treatment of pain and other problems.[63]

The World Health Organisation (WHO) describes palliative care as:

> *"An approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.*
>
> *Palliative care:*
>
> - *Provides relief from pain and other distressing symptoms;*
> - *Affirms life and regards dying as a normal process;*
> - *Intends neither to hasten or postpone death;*
> - *Integrates the psychological and spiritual aspects of patient care;*
> - *Offers a support system to help patients live as actively as possible until death;*
> - *Offers a support system to help the family cope during the patient's illness and in their own bereavement;*
> - *Uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated;*
> - *Will enhance quality of life, and may also positively influence the course of illness;*
> - *Is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications."*[64]

The Australian National Health Data Dictionary (NHDD)[65] defines palliative care as:

> *"Care in which the clinical intent or treatment goal is primarily quality of life for a patient with an active, progressive disease with little or no prospect of cure. It is usually evidenced by an interdisciplinary assessment and/or management of the physical, psychological, emotional and spiritual needs of the patient; and a grief and bereavement support service for the patient and their carers/family. It includes care provided:*
>
> - *In a palliative care unit;*
> - *In a designated palliative care program; or*

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[62] Quest TE, Marco CA, Derse AR. Hospice and palliative medicine: new subspecialty, new opportunities. *Ann Emerg Med*. 2009 Jul;54(1):94-102.

[63] World Health Organization. *National Cancer Control Programmes: Policies and Managerial Guidelines.* 2nd ed. Geneva, Switzerland: World Health Organization; 2002.

[64] WHO 2002

[65] Australian Institute of Health and Welfare. National health data dictionary. Version 15. Cat. no. HWI 107. Canberra: AIHW; 2010.

- *Under the principal clinical management of a palliative care physician or, in the opinion of the treating doctor, when the principal clinical intent of care is palliation".*

A Palliative Care team typically includes physicians, nurses, social workers, chaplains and mental health professionals'.[66] Recent analysis by AIHW of over 52,000 Palliative Care separations identified that the majority involved allied health interventions including physiotherapy, social work, dietetics and pastoral care.[67]

The typical duration of a palliative care episode of care varies according to the natural duration of a particular illness. Palliative care may be involved for many years (as and when required) for children and young adults diagnosed with particular genetic disorders. Progressive degenerative disease may also involve palliative care consultation over a number of years, with increasing involvement towards the final years, months and weeks of life. Given that the largest proportion of patients currently treated by palliative care teams have been diagnosed with some form of neoplastic disease, the duration of most palliative care episodes occurs over a shorter period of time.

The palliative care profession recognises four phases of palliative care intervention, for individuals and their families who have been diagnosed with a terminal illness. Data are voluntarily reported to the PCOC by a number of facilities across Australia to monitor the length of time spent in various phases of palliative care management. The duration of care provided during these phases varies considerably according to individual patient and carer needs. The key phases of palliative care are described as:

- 'Stable' – where the typical (average) duration of involvement is around 20 days for patients managed in the community setting, and around 8 days for those with a stable palliative care related admission to hospital;
- 'Unstable' – where the average duration of involvement is around 7 days in the community, and around 3 days in hospital;
- 'Deteriorating' – where the average period of involvement is 15 days in the community or 5 days if associated with a hospital admission; and
- 'Terminal' – where the average period is 3 days in the community and 2 days in hospital.

Thus, on average, a total palliative care episode may last anywhere from around 18 days of admitted hospital care (over multiple admissions) to 45 days in the community. It must be emphasised that these figures do not necessarily represent consecutive days of palliative care intervention. In addition, it is also recognised that any given individual may transition back and forth between stages rather than progress through each in a linear fashion. Independent studies of general practice patients with malignant and cardiorespiratory disease are consistent with national data reported by the PCOC, indicating that the respective median of the end stage palliative phase was anywhere between 16 days and 23 days.[68]

Clinical practice guidelines together with the national standards for provision of palliative care services, guides the quality and safety for palliative care in Australia. The National Standards have been developed by PCA in wide consultation with the palliative care and end-of-life sectors and are now in the fourth edition (2005), summarised in Table 3-1.

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[66] Quest et al 2009

[67] ibid

[68] McKinley et al 2004

Table 3-1: National standards for palliative care

STANDARDS FOR PROVIDING QUALITY PALLIATIVE CARE FOR ALL AUSTRALIANS
Standard 1 Care, decision-making and care planning are each based on a respect for the uniqueness of the patient, their caregiver/s and family. The patient, their caregiver's and family's needs and wishes are acknowledged and guide decision-making and care planning.
Standard 2 The holistic needs of the patient, their caregiver/s and family, are acknowledged in the assessment and care planning processes, and strategies are developed to address those needs, in line with their wishes.
Standard 3 Ongoing and comprehensive assessment and care planning are undertaken to meet the needs and wishes of the patient, their caregiver/s and family.
Standard 4 Care is coordinated to minimise the burden on patient, their caregiver/s and family.
Standard 5 The primary caregiver/s is provided with information, support and guidance about their role according to their needs and wishes.
Standard 6 The unique needs of dying patients are considered, their comfort maximized and their dignity preserved.
Standard 7 The service has an appropriate philosophy, values, culture, structure and environment for the provision of competent and compassionate palliative care.
Standard 8 Formal mechanisms are in place to ensure that the patient, their caregiver/s and family have access to bereavement care, information and support services.
Standard 9 Community capacity to respond to the needs of people who have a life limiting illness, their caregiver/s and family is built through effective collaboration and partnerships.
Standard 10 Access to palliative care is available for all people based on clinical need and is independent of diagnosis, age, cultural background or geography.
Standard 11 The service is committed to quality improvement and research in clinical and management practices.
Standard 12 Staff and volunteers are appropriately qualified for the level of service offered and demonstrate ongoing participation in continuing professional development.
Standard 13 Staff and volunteers reflect on practice and initiate and maintain effective self-care strategies.

The national standards have been developed to support and enhance the quality and care for patients, their families and carers. They are used as part of accreditation processes of palliative care and other services that provide palliative care and are used alongside other standards for health services including The Australian Council of Health Care Standards

EQuIP, Quality Improvement Council, Royal Australasian College of General Practitioners and the Aged Care Accreditation Standards.

In addition, the National Health and Medical Research Council (NHMRC) *Guidelines for a Palliative Approach in Residential Aged Care 2006,* provides a specific framework for palliative care in residential aged care settings in recognition of the increasing numbers of persons dying in these facilities.

3.2 Palliative medicine (definition and scope of practice)

Palliative Medicine is the physician component of interdisciplinary palliative care. AChPM defines their role as:

> ***"…the study and management of patients with active, progressive, far advanced disease for whom the prognosis is limited and the focus of care is the quality of life. Palliative Medicine involves comprehensive symptom management and support of individuals with terminal illness and their families, including through the bereavement period, where the control of pain, of other symptoms and of psychological, social and spiritual problems is paramount."***

According to the training requirements of the Chapter, palliative medicine specialists must have demonstrated competencies across a variety of skills/roles (Advanced Training Curriculum, 2010) including the capacity to work as:

- "A **medical expert** and **clinical decision maker:**
  - Demonstrating expert knowledge of pathophysiology, symptom management, psychosocial and spiritual issues relating to life-limiting illness and imminent death;
  - Understanding the experience of disease from the perspective of the patient and the meaning and consequences of illness to the patient and their family;
  - Making appropriate clinical decisions to provide medical care that is structured around the patients' and families' needs and their understanding and priorities, with the aim of maximising quality of life, relieving suffering, supporting the family, and normalising their experiences;
  - Having particular expertise in the management of patients within the home, as well as the hospital and hospice;
  - Understanding the natural history and role of disease specific treatments in the management of advanced cancer and other progressive life-limiting illnesses;
  - Practising culturally responsible medicine with understanding of the personal, historical, contextual, legal, cultural, and social influences on health workers, patients, and families; and
  - Providing expert advice as a consultant.
- A **communicator** and **collaborator:**
  - Establishing therapeutic and supportive relationships with patients and their families based on understanding, trust, empathy, and confidentiality;
  - Demonstrating expertise in discussing end-of-life issues with patients and their families;

  - Capable of sensitively exploring the patients' concerns across physical, psychological, social, cultural, and spiritual domains;
  - Communicating effectively with patients, their families and other health professionals involved in the patients' care;
  - Consulting effectively with other physicians and health care professionals;
  - Contributing effectively to other interdisciplinary activities; and
  - Being willing to educate trainee specialists.
- A **manager:**
  - Managing his/her own time and resources effectively in order to balance patient care, professional development, managerial and administrative duties, learning needs, and personal life with particular reference to the demands of dealing with death and dying;
  - Working effectively and efficiently in a health care organisation;
  - Managing human resource, financial, quality assurance, data management, and administrative aspects of his/her own practice or palliative care service; and
  - Allocating finite health care and health education resources effectively.
- A **health advocate**:
  - Advocating for the needs of individual patients, social groups and cultures within the community who have specific palliative care needs or do not have effective access to palliative care services;
  - Promoting palliative care in the health systems in which they work; and
  - Contributing to appropriate acknowledgment of palliative care issues within the community.
- A **professional:**
  - Practising palliative medicine in an ethically responsible manner that respects the medical, legal, and professional obligations of belonging to a self-regulating group with particular reference to the complex issues that can surround end-of-life care;
  - Managing the personal challenges of dealing on a daily basis with death and grief; and
  - Reflecting on their personal practice of palliative medicine and use this process to guide both Continuous Professional Development (CPD) and the ongoing pursuit of wisdom."

3.3 Types of palliative care specialist intervention

The AMC has recognised that:

> ***"Palliative medicine involves a defined body of knowledge and a specific aggregation of clinical skills and expertise in addition to the skills of all medical practitioners, particularly in the understanding of the full range of symptom control measures, and the psycho-social support of patients with incurable and progressive disease and their carers and families" (p.18)***

In terms of clinical work (care of patients), the Australian & New Zealand Society of Palliative Medicine (ANZSPM)[69] states that Palliative Medicine Specialists are involved in:

- Performing comprehensive assessments of patients who are being cared for primarily by GPs and/or other specialists;
- Directing care of patients with complex conditions;
- Providing intermittent care of patients with a need for transient specialist care to manage complex symptoms; and
- Providing advice to GPs and other specialists caring for patients at the end of life.

Accordingly, as part of patient care, Palliative Care Specialists perform:

- Assessments: including ascertainment of a patient's current active medical problems and past history, review of medications, assessment of psychological function, areas of functional limitation, and the determination of patient and family coping together with any support that may be required. A written report is then prepared and sent to the referring practitioner;
- Develop management plans: including planned follow-up of medical/social/psychological/spiritual issues, recommendations for treatment options, medications, allied health and nursing services, carer support plan and bereavement plan. Also explanation to patient and family, and advanced care planning arrangements. This is supported by statements made by palliative care physicians interviewed for preparation of this assessment.

> *"Assessment and intervention involves - symptom control – nausea, vomiting, pain; counselling and managing psychosocial distress – family care is an expected role of the palliative care consultant. A lot of time is spent with the family, case management and coordination of care for rural/remote patients – criteria for accepting patients from rural/remote areas is more flexible than metropolitan areas because these patients and any primary care provider in remote areas need to be supported."*

> *"A typical treatment pathway includes an initial comprehensive assessment of presenting complaint and review of care pathway and assessment of way forward including any changes to drug regimes, social history and review of care planning. It also involves family discussion about the prognosis and how events might unfold. We also provide an assessment of community needs and initiate the process for community support including equipment, ongoing daily care etc."*

> *"The care pathway involves improvement in physical symptoms, improvement or maintenance of functionality, allowing patients to live as well as they can, look for concrete outcomes (using a scoring system) and allowing patients to die in the place of their choosing."*

In both private and public hospital settings, over 90% of Palliative Care separations are classified as "Medical", which do not involve operating room procedures or "significant" non-operating room procedures such as endoscopy.[70] For admitted patients, interventions that may involve Palliative Medicine doctors might include:

- Administration of blood and blood products;
- Administration of pharmacotherapy; and

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[69] Australian & New Zealand Society of Palliative Medicine. *Benchmark Number of Specialists in Palliative Medicine ANZSPM. Position Statement*, ANZSPC Inc: Canberra; 2010.

[70] ibid

- Application, insertion, or removal procedures of abdomen, or peritoneum.

In addition, a range of different investigations is commonly ordered during a Palliative Care admission, which again may have been initiated by Palliative Medicine doctors. These included Computerised Tomography (CT) scans of brain, abdomen, pelvis or chest; Magnetic Resonance Imaging (MRI), or Spiral Angiography.[71]

3.4 The quality of clinical interventions

Consultation with a range of palliative care specialists identified that a quality outcome of treatment would result in an individual dying with dignity, as a result of a personally and culturally appropriate management plan, the implementation of a range of supports tailored to specific patient and family needs, that are delivered with respect for patient choices.

> *"[What I would see as a] good outcome of treatment would include – having an appropriate treatment plan in place, helping the patient feel safe, having their pain and symptoms well managed, helping them feel they had options and choices and the ability to talk about dying and having a plan."*
>
> *"Good outcomes include a death that is minimally distressing to patient and family and occurs in a dignified and pain-free way, or discharge home with appropriate contacts and supports, including equipment and an ongoing care plan."*

These outcomes are consistent with previous research,[72] in which patients with serious illness and poor prognosis have specifically requested:

- Control of pain and symptoms;
- Avoidance of inappropriate prolongation of the dying process;
- A sense of control;
- That families are relieved of the burden caused by the illness; and
- Strengthening of relationships with families.

Accordingly, the ANZSPM have advised that typical patient and family assessment followed by the development of an appropriate management plan would take approximately 60 minutes.[73]

Evidence based best practice is at the cornerstone of palliative medicine training, certification, clinical practice and ongoing professional development, as evidenced through their training curricula, competency standards, and ongoing professional education requirements.[74]

3.4.1 SAFETY OF CLINICAL INTERVENTIONS

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[71] ibid

[72] von Gunten CF. Evolution and effectiveness of palliative care. *Am J Geriatr Psychiatry*. 2012 Apr;20(4):291-7.

[73] Protocol Advisory Sub-Committee. *Final Decision Analytic Protocol (DAP) to guide the assessment of palliative medicine professional attendance items*. Canberra: Author; 2012.

[74] Australian Medical Council (2005). p.30.

Evidence for the safety of specialist knowledge and skills was a specific area of focus for the Australian Medical Council in assessing whether or not to recommend recognition of palliative medicine. It determined that:

> ***"Palliative medicine specialists are uniquely skilled in a medical workforce generally unskilled at safely negotiating the difficult transition from active treatment to palliative care. It is arguable that the core of safe practice is the acknowledgement and coordination of other related services, combined with skilful and safe judgements about the appropriateness of more investigation or aggressive therapy." (p.26)***

Given the unique combination of skills offered by palliative medicine specialists, a specific summary of all possible interventions (as might otherwise be applied by a wide range of other medical specialists) is beyond the scope of the current report. However, it is acknowledged that systematic analysis of the specific safety associated with delivery of these interventions by palliative specialists (compared with delivery by other specialist groups) is lacking in the research literature. Notwithstanding, anecdotal examples of where palliative medicine can offer safer outcomes (pending further specialty specific research) include, but are not limited to:

- Avoidable hospitalisations or investigations;
- Prevention of pharmaceutical toxicity;
- Management of pharmaceutical interactions;
- Early identification and management of spinal cord compression and/or other acute onset events secondary to systemic neoplastic disease;
- Management of severe psychological distress;
- Management of pain;
- Management of patient agitation; and
- Management of dyspnoea.

> *"The use of opioids and other drugs are restricted but are available to palliative care specialists – there is however a reluctance to have these drugs more widely available even within a hospital setting."*

> *"Palliative care specialists have greater comfort in dealing with the drugs associated with this type of care - including opioids because they are more familiar with them."*

> *"The other point of difference is that palliative care specialists are better at symptom management, particularly pain management."*

3.4.2 EFFECTIVENESS OF CLINICAL INTERVENTIONS

Given the multidisciplinary nature of palliative medicine, studies on the effectiveness of specialist medical interventions as a specific component of service delivery have not been readily identified in the published literature. This dilemma is experienced by any medical specialty that is trained to function and co-ordinate a multidisciplinary approach to patient care (e.g., geriatric medicine, pain medicine, sports medicine, rehabilitation medicine, respiratory medicine, paediatric medicine etc…). Thus, studies that attempt to 'partial out' the specific treatment components of specialist medical involvement are rarely published. Moreover, in a medical (compared with surgical or other procedural) context, individual specialist skills frequently relate to the capacity to undertake a comprehensive and appropriate clinical assessment, together with a range of appropriate diagnostic investigations, pharmaco-therapeutic and educational interventions. As previously outlined, it is the combination of these clinical skills that underlies the basis of any specialty in addressing the particular needs of their patient cohort. The efficacy of individual elements of patient assessment, diagnostic investigation, pharmacotherapy or educational interventions is therefore common across most specialties rather than unique to any given craft group. This is in direct contrast to the introduction of any new procedural intervention, which is commonly performed by a given specialty area. Where multiple specialties may apply the same procedural intervention, again, research rarely focuses upon the efficacy of delivery by one craft group compared with another.

Thus, reviews have focused upon the effectiveness of palliative care, rather than palliative medicine per se. Where the involvement of medical professionals has occurred – studies rarely specify the level of medical specialty, nor seek to determine the specific impact of medical intervention as a component of multidisciplinary care. The following overview of literature on the effectiveness must be interpreted in this context.

A systematic review of published research on outcomes of palliative care, when compared to conventional care, shows that it provides improved satisfaction to both patients and their carers, is better able to deal with family needs and provides better pain control and symptom management.[75] The findings also indicate that it reduces the overall cost of care to the system by reducing the quantum of time spent in hospital settings.

> *"The role of the palliative care specialist is to examine and determine the likely trajectory and communicate this to the patient and family. It includes symptom management as well as the management of what may be new problems that emerge as part of the development of the case and arrange for appropriate medical care including diagnostics. In some cases, it involves following up from community palliative care and symptom management."*
>
> *"Care path and interventions involve a holistic approach that includes psychosocial, spiritual care and advanced care planning which includes liaison with families."*
>
> *"We have a much stronger focus of 'patient centred care' and are far more conscious of the context of family connectedness."*

Studies of Palliative Care effectiveness often focus on patient outcomes and cost. Accordingly, examples of improved patient outcomes have included:

- A meta-analysis of 18 studies: specialist care provided by a multidisciplinary Palliative Care team resulted in improved outcomes such as the amount of time spent at home by patients, satisfaction in both patients and their carers, symptom control, a reduction in the number of inpatient hospital days, a reduction in overall cost, and the patients' likelihood of dying where they wished to (Level I evidence).[76]
- A study of multiple sclerosis: Palliative Care services resulted in significant improvement in caregivers' burden (Level II evidence);[77] and

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[75] *J Hear, IJ Higginson – Do specialist palliative care teams improve outcomes for cancer patients? A systematic literature review. Palliative Medicine 1998: 12: 317-332*

[76] Hearn J, Higginson IJ. Do specialist palliative care teams improve outcomes for cancer patients? A systematic literature review. *Palliat Med*. 1998 Sep;12(5):317-32.

[77] Higginson IJ, McCrone P, Hart SR, Burman R, Silber E, Edmonds PM. Is short-term palliative care cost-effective in multiple sclerosis? A randomized phase II trial. *J Pain Symptom Manage*. 2009 Dec;38(6):816-26.

- A survey of bereaved families: those whose relatives died with home hospice services (in contrast to the other settings of care) reported higher satisfaction, fewer concerns with care, and fewer unmet needs (Level IV evidence).[78]

Regarding cost, care at the end of life is known to account for a large proportion of healthcare resources, such as health-care resources[79] or hospital bed days.[80] Systematic reviews of end-of-life literature suggest that Palliative Care is usually significantly less costly relative to comparator groups (Level I evidence).[81] More specifically, there is evidence that palliative care administered by a hospice program is less expensive than standard care at the end of life when matched by diagnosis and severity of illness (Level III-2; Level IV evidence).[82,83,84] Combining specialist palliative care with standard care in hospital settings also results in cost savings (Level III-3 evidence).[85] Potential reasons for these savings have been reported to include:

- Provision of Palliative Care out of hospital, avoiding more expensive hospitalisation;[86]
- The tailoring of care to the patient's personal goals, which are used to guide decision-making, with inappropriate medications and investigations ceased;[87,88] and
- Significantly shorter lengths of stay in admitted hospital care.[89]

In relation to the overall benefit of palliative medicine specialists, the Australian Medical Council consulted with a wide range of stakeholders and observed that:

> ***"The ageing of the population, the growing prevalence of chronic disease and increased longevity are contributing to increased need for care provided by specialists who are knowledgeable, highly skilled medical experts, good team leaders, and who have good communication/interpersonal skills." (p.33)***

Moreover, the Council noted specific feedback from a range of patients and their carers who had received palliative medicine intervention and subsequently reported that:

> ***"[The] Palliative medicine specialist viewed them from a different perspective to other medical specialists. Attention was given to their experience so that they were viewed as a person rather than as an illness to be tackled." (p.35)***

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[78] Teno et al 2004.

[79] Riley GF, Lubitz JD. Long-term trends in Medicare payments in the last year of life. *Health Serv Res* 2010; 45: 565–576.

[80] Hatziandreu E, Archontakis F, Daly A, et al. *National Audit Office. The potential cost savings of greater use of home- and hospice-based end of life care in England.* Cambridge: RAND Corporation, 2008.

[81] Smith S, Brick A, O'Hara S, Normand C. Evidence on the cost and cost-effectiveness of palliative care: A literature review. *Palliat Med*. 2013 Nov 13 [Epub ahead of print]

[82] Taylor DH Jr, Ostermann J, Van Houtven CH, et al: What length of hospice use maximizes reduction in medical expenditures near death in the US Medicare program? *Soc Sci Med* 2007; 65(7): 1 466-1478

[83] Morrison RS, Dietrich J, Ladwig S, et al: Palliative care consultation teams cut hospital costs for Medicaid beneficiaries. *Health Affairs* 2011;30(3):454-463

[84] McGrath LS, Foote DG, Frith KH, Hall WM. Cost effectiveness of a palliative care program in a rural community hospital. *Nurs Econ*. 2013 Jul-Aug;31(4):176-83.

[85] Morrison RS, Penrod JD, Cassel JB, et al: Cost savings associated with US hospital palliative care consultation programs. *Arch Intern Med* 2008; 168(16):1783-1790.

[86] Higginson et al 2009

[87] Von Gunten 2012.

[88] Higginson I., Finlay I., Goodwin D.M. Do hospital-based palliative care teams improve care for patients or families at the end of life?. *J Pain Symptom Manage* 2002; 23: pp 96-106.

[89] Back AL, Li YF, Sales AE. Impact of palliative care case management on resource use by patients dying of cancer at a Veterans Affairs medical center. *J Med*. 2005 Feb;8(1):26-35.

3.4.3 CURRENT AND FUTURE RESEARCH IN PALLIATIVE CARE

Acknowledging the limited research relating to palliative care, and palliative care outcomes in the Australian context, the Australian Government National Palliative Care Program has specifically devoted funding through the Palliative Care Research Program. Under this program, managed by the National Health and Medical Research Council, some 47 research grants have been allocated since 2008 focusing upon a wide range of areas, examples of which have included:

- A randomised control trial of Risperidone versus Haloperidol versus placebo with rescue haloperidol in delirium in palliative care;
- A multi-centre randomised double-blind controlled trial of oxygen versus air for the relief of breathlessness in terminally-ill patients with intractable dyspnoea and PaO2 >55mmHg;
- A randomised controlled trial of the cost effectiveness of models of supportive care coordination for advanced cancer;
- A randomised clinical trial to test a pain education program for patients with cancer and their family carers;
- A randomised controlled trial of an innovative supportive care program designed to reduce perceived needs and psychological distress and enhance quality of life amongst people with incurable lung cancer;
- Pilot randomised study of telemedicine consultation versus face-to-face consultation in palliative medicine; and
- Improving the psychological wellbeing of family caregivers of home based palliative care patients: A randomised controlled trial.

A complete listing of all NHMRC research grant projects is presented in Appendix 3 of this report. Noting the ongoing need for palliative care research the recent Senate Committee Inquiry into Palliative Care in Australia has thus recommended that:

> ***"…the Australian government develop a nationally funded framework for palliative care research…" (p.137)***

4 The medical workforce delivering palliative care

Palliative medicine as a specialty has been available since 1992, with advanced training under the AChPM commencing in 2001. As such, there are currently palliative care specialists who have both trained as physicians (FRACP) and then specialised in palliative medicine, and those who have trained as GPs (FRACGP; FRNZCGP), and specialised in palliative medicine.

Given the range of palliative care services required across the community, there are alternative providers of these services dependent upon the setting, the nature of the underlying disease condition requiring palliative care intervention, and the age of the recipient of care.

Historically, GPs in the course of life-cycle care and treatment have provided a large proportion of palliative care type services to their patient cohort. Increasingly, however, the nature of holistic management of a range of malignant and chronic conditions has shifted the model of care to include specialised palliative care management across acute inpatient settings, community settings and residential care settings.

Referral to palliative care specialists recognises the multi-disciplinary model of care these specialist providers are able to access, including the range of allied health and counselling services that are integral to comprehensive care both in inpatient and community settings.

4.1 Palliative medicine training

Recognised specialists in palliative medicine are Fellows of the AChPM. The AChPM training is a three-year program at the advanced level, where applicants need to have completed the RACP basic training program or hold a fellowship in one of the following specialities:

- Anaesthetics (FRANZCA)
- General Practice (FRACGP; FRNZCGP)
- Intensive care medicine (CICM)
- Obstetrics and Gynaecology (FRANZCOG)
- Pain medicine (FFPMANZCA)
- Psychiatry (FRANZCP)
- Radiology (FRANZCR)
- Rehabilitation medicine (FAFRM)
- Rural and remote medicine (FACRRM)
- Surgery (FRACS)

In Australia, there are two pathways to achieving specialist status in Palliative Medicine. The ANZSPC describes these[90] as follows:

- A **Consultant Physician in Palliative Medicine** in Australia has, either:
  - Attained the fellowship of the Royal Australasian College of Physicians (FRACP) and completed advanced training under the auspices of the Combined Palliative Medicine Education Committee; OR
  - Has achieved an equivalent standard to the above as determined by relevant authorities.[91]
- A **Palliative Medicine Specialist** has either:
  - Attained the fellowship of another College as listed in the Australasian Chapter of Palliative Medicine Training Manual or has achieved an equivalent standard as determined by relevant authorities; AND
  - Has been conferred with Fellowship of the Australasian Chapter of Palliative Medicine (FAChPM) within the Adult Medicine Division of the Royal Australasian College of Physicians as a result of successfully completing the Australasian Chapter of Palliative Medicine specialist training program or as a result of assessment of prior experience by the Australasian Chapter of Palliative Medicine; OR
  - Is an international medical graduate, assessed by relevant authorities as equivalent to an Australian or New Zealand trained specialist in palliative medicine, and holds an equivalent qualification.

Training is comprised of 24 months of core training and 12 months of non-core training and the specialist qualification awarded is either the FRACP or FAChPM, depending upon the pathway of entry.

The minimum content of specialist Palliative Medicine training for those trainees entering through the pathway leading to Fellowship of the AChPM consists of the four mandatory Palliative Medicine training terms in designated palliative medicine registrar posts. Core training includes:

- Training Term 1 (core) - Palliative care inpatient unit or hospice;
- Training Term 2 (core) - Community setting;
- Training Term 3 (core) - Tertiary hospital consultation service; and
- Training Term 4 (core- other) - Hospital consultation/community/inpatient/other palliative care posts.

Two additional terms relate to:

- Training Term 5 (core - other) - Oncology; and
- Training Term 6 - Other specialty, research or academic study.

The Confederation of Postgraduate Medical Councils (CPMEC) requires the additional training term in Oncology if the trainee has not obtained satisfactory prior experience in oncology such as a Radiation Oncologist with FRANZCR. Following assessment at entry

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[90] Australian & New Zealand Society of Palliative Medicine. *Defining the meaning of the terms: Consultant Physician in Palliative Medicine and Palliative Medicine Specialist*. ANZSPM, Inc: Canberra; 2008.

[91] Such as the Australian Medical Council, New Zealand Medical Council, Medicare Australia and Royal Australasian College of Physicians

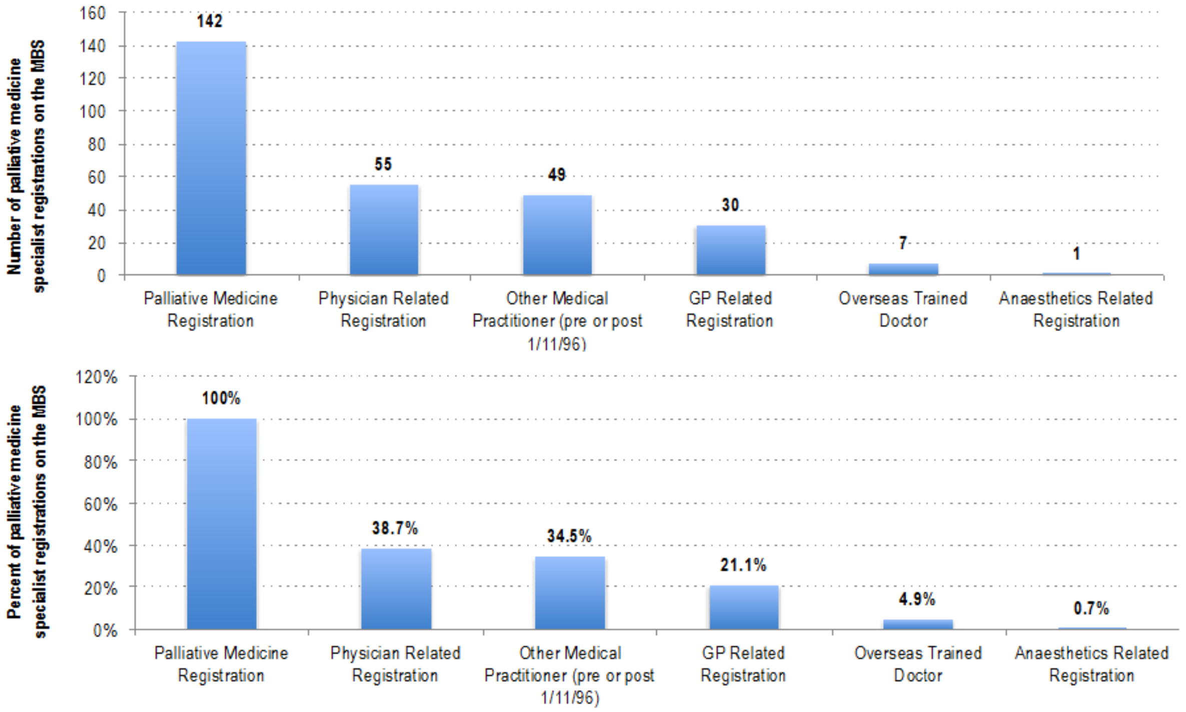
into the Palliative Medicine training program the trainee may be required to complete Term 6 in a registrar position that complements prior experience to fill gaps in knowledge and experience as assessed by the CPMEC.

There are additional requirements for those trainees wishing to specialise in paediatric and child palliative medicine.

4.2 Palliative medicine workforce

In 2007, it was estimated that there were 114 fulltime equivalents (FTE) designated Palliative Medicine Specialists in Australia, with an estimated FTE per 100,000-population rate of 0.54.[92] Based on Palliative Care Australia guidelines,[93] previous literature[94] and state service plans,[95] it is recommended that the FTE per 100,000 population ratio should be at least 1.0, meaning that Australia has approximately half the Palliative Medicine Specialists it needs to service its population.[96] According to the training criteria, the majority of Palliative Medicine Specialists must have a FRACP or other existing fellowship prior to completing advanced training and attaining their FAChPM. The registration status of specialists billing on the MBS between January 2009 and June 2013 is presented in Figure 4-1.

Figure 4-1: Registration status of palliative medicine specialists billing on the MBS over three years (n=142)



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[92] Australian & New Zealand Society of Palliative Medicine. Benchmark Number of Specialists in Palliative Medicine ANZSPM. Position Statement, ANZSPC Inc: Canberra; 2010

[93] Palliative Care Australia. Palliative Care Service Provision in Australia: A Planning Guide. Canberra: PCA; 2003.

[94] Royal College of Physicians, (2008), Consultant Physicians Working for Patients. 4th edition. London: RCP; 2008.

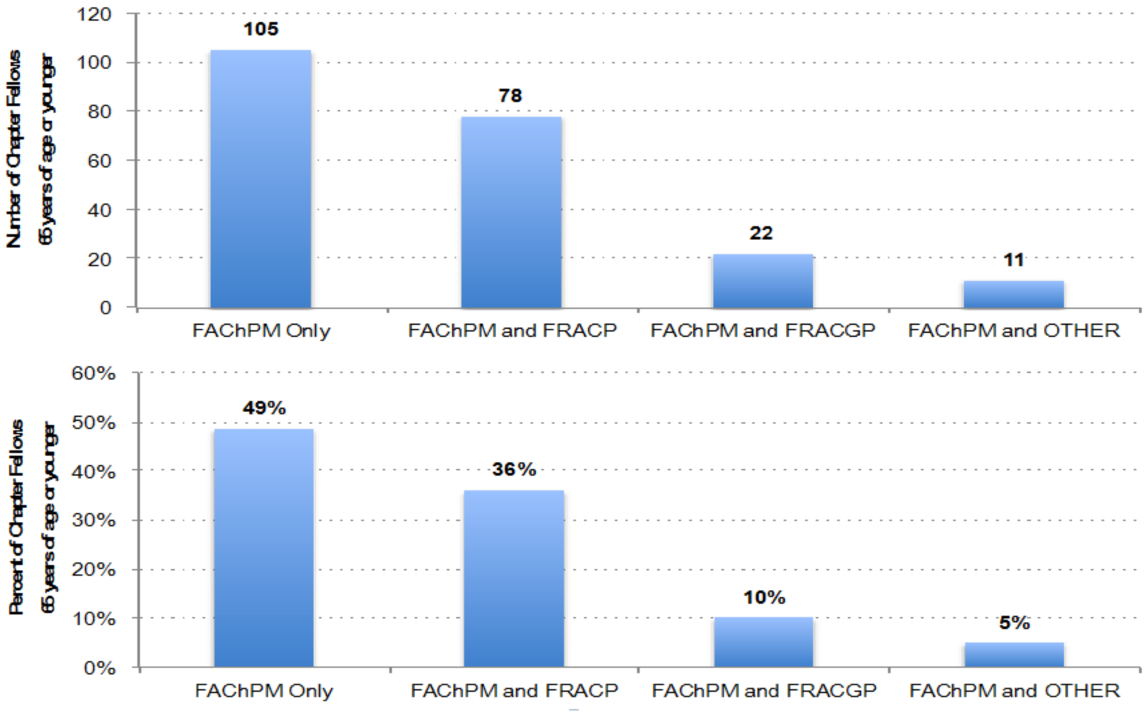
[95] Queensland Health. Queensland Statewide Cancer Treatment Services Plan 2008-2017. Brisbane: Author; 2008. Available at: http://www.health.qld.gov.au/publications/qh_plans/QS_cancer_plan_final.pdf

[96] Australian & New Zealand Society of Palliative Medicine, 2010.

Registration data indicates that around 40 percent of specialists (39%) are also registered as physicians, around one in five (21%) have some type of GP-related registration, and around one in three (35%) have been recognised as some 'other medical practitioner' in addition to their palliative care specialist registration on the MBS.

More recent data provided by the Chapter (2013) reveals that there are 248 current fellows, 216 of whom are 65 years of age or younger and thus considered to be in the active workforce in either a full-time or part-time capacity (Figure 4-2). Dual fellowship data is not comprehensively recorded by the Chapter, which indicates that the majority of co-fellowships relate to the Royal Australasian College of Physicians (RACP), followed by the Royal Australasian College of General Practitioners (10%). Other Australian fellowships held include those relating to radiology, rehabilitation medicine, rural and remote medicine, anaesthetics (pain medicine), and public health medicine (Figure 4-2).

Figure 4-2: Number and percent of fellowships held by palliative medicine specialists (n=216)[97]



According to MBS registration data and information held by the Chapter of Palliative Medicine, around 40% of palliative medicine specialists can claim physician related MBS items.

The number of fellows working across different jurisdictions is presented in Figure 4-3, which reveals the highest number of specialists in the most populous states (NSW, VIC, QLD).

Figure 4-3: Number of chapter fellows working across Australian jurisdictions

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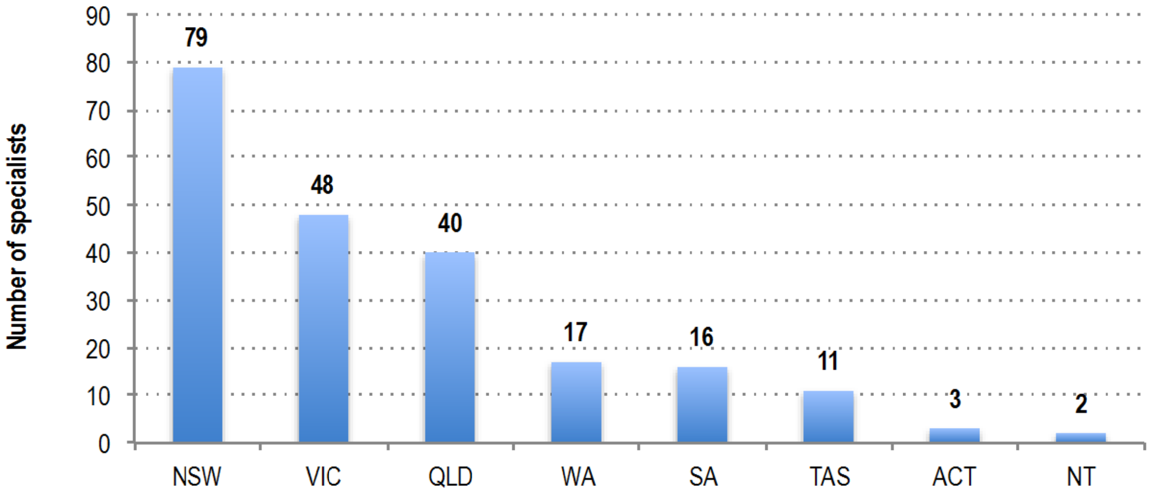
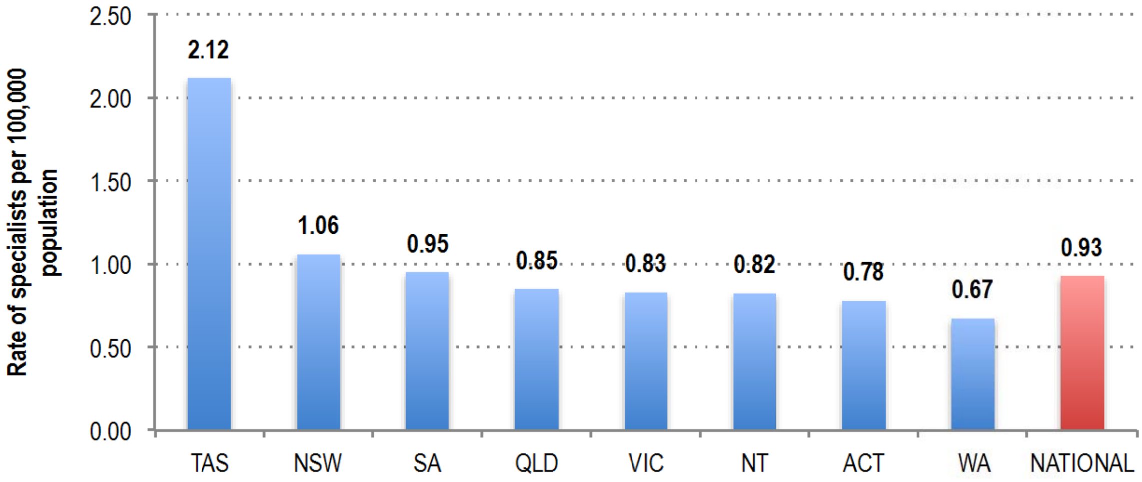
[97] Note: Data obtained from AChPM; thus 100% (n=216) are FAChPM, 78 of those with a FAChPM also have a FRACP ((78/216) x 100 = 36%) etc.



At a population level, there is a national rate of almost 1 per 100,000-population across Australia.

Figure 4-4: **Ratio of specialists across Australian jurisdictions per 100,000-population**



This rate approaches workforce levels previously suggested for this specialty group.[98] However, the ratio of specialists to population varies considerably from a maximum of 2.12 in Tasmania, to a minimum of 0.67 in Western Australia (Figure 4-4).

Analysis of the age of existing Chapter Fellows reveals that of the 216 estimated to be in the current workforce, an average of 8 specialists may leave the workforce each year. More specifically:

- 14% will have reached the age of retirement within 3 years;
- 24% will be eligible for retirement in 6 years; and

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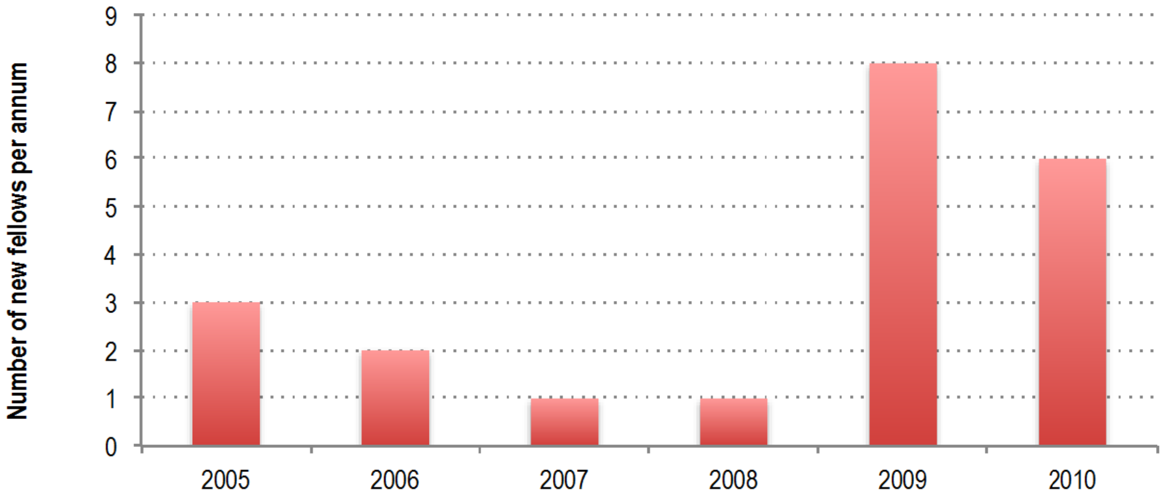
[98] Australian & New Zealand Society of Palliative Medicine, 2010.

- 35% may retire within 9 years.

By comparison, the rate of new fellows entering the specialist profession has varied over the past 6 years (Figure 4-5). A recent growth in the number of new fellows would appear to match the rate of potentially retiring fellows; however, there is insufficient information currently available to estimate any trend.

Figure 4-5: Number of new specialists entering the workforce



4.3 Practice settings for palliative medicine

4.3.1 PUBLIC VERSUS PRIVATE PRACTICE AND MBS BILLING ARRANGEMENTS

Analysis of MBS data demonstrated a wide variation in MBS billing practices across the different Australian jurisdictions. On average, around 64% of Fellows bill MBS items in private or public hospital settings. Fellows in the Northern Territory and Victoria undertook the lowest proportion of MBS billing. The highest proportion of MBS billing occurs in Western Australia, followed by Queensland and the Australian Capital Territory (Figure 4-6).

A survey of Chapter Members was undertaken by AChPM to further inform this application. A total of 106 respondents undertook the survey. Survey data provided from Chapter Fellows indicated that the majority worked in both private and public practice.

MBS billing was reported by specialists to occur in similar proportions across public and private health services.

The highest proportion of fellows undertaking MBS billing in private health services occurred in Queensland (27%), New South Wales (23%) and Victoria (23%). The highest proportion of fellows MBS billing in public health services occurred in New South Wales (36%), and Queensland (26%), followed by Victoria (21%). Survey data are presented in Figure 4-7.

Figure 4-6: Proportion of chapter fellows MBS billing by jurisdiction (2012 - 13)

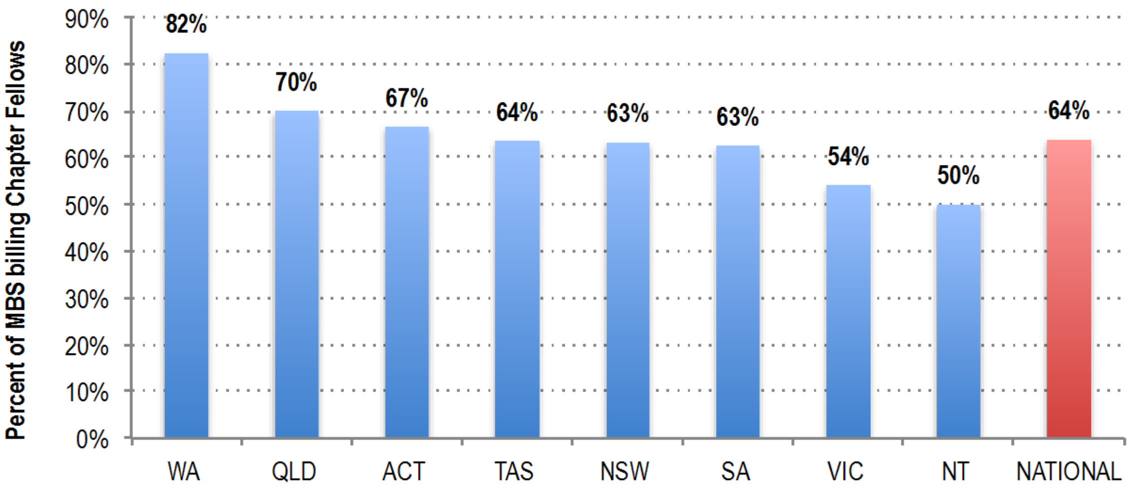
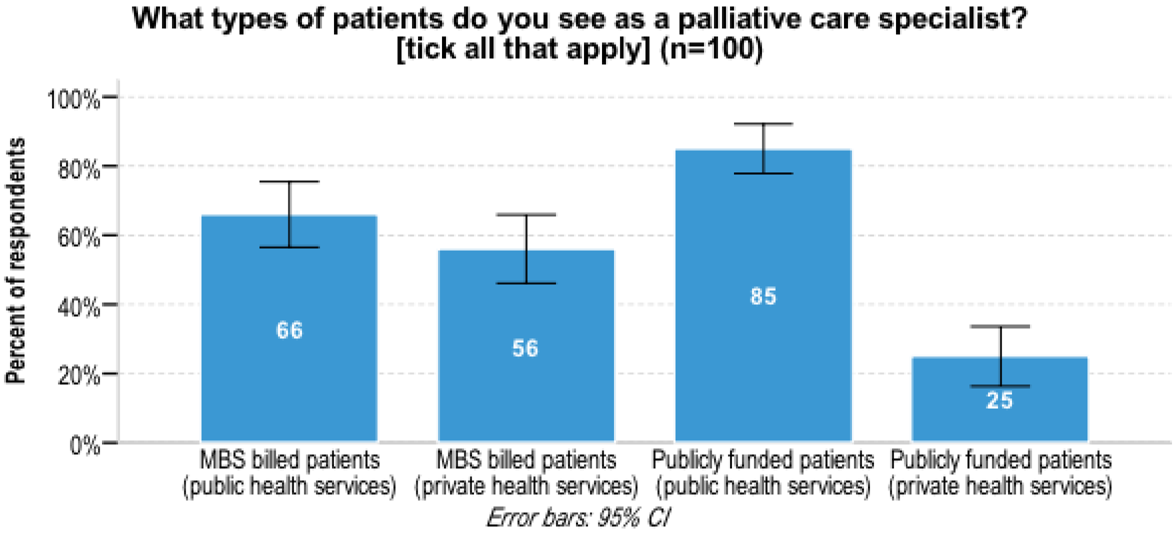
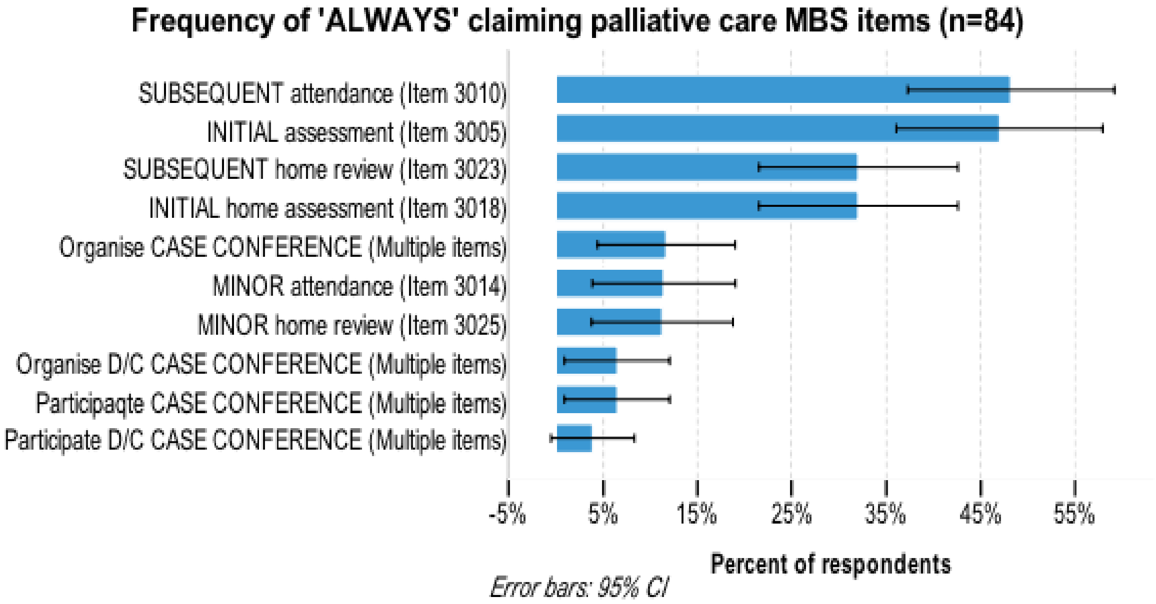


Figure 4-7: Self-reported public and private activity undertaken by specialists



Specialists responding to the practice profile survey were also asked which of the current palliative care related items listed on the MBS (Schedule 24) were most frequently utilised in daily practice. The most frequently billed MBS items reported by fellows, were initial and subsequent attendances in Hospital/Surgery followed by Home assessments and reviews. These findings are presented in Figure 4-8.

Figure 4-8: Self-reported frequency of palliative medicine MBS item billing



4.3.2 PUBLIC PRACTICE ARRANGEMENTS

Almost all specialists work in public sector positions across Australia.

The estimated number of specialist referrals within public sector facilities (hospitals, hospices, community health and residential aged care) has been previously presented in Chapter 2. Referral of patients is either from within the acute setting or may be by virtue of referral from another specialist (e.g. oncologist, physician, surgeons) or by a treating GP through community palliative care service.

A major reason for the high proportion of public sector service delivery relates to the multidisciplinary and integrated model of care that is required to deliver best practice palliative care intervention.

In general, multidisciplinary services are more readily available (and affordable) in the public sector. Coordination of allied health, counselling, social worker and aids and equipment and home assistance services are more readily facilitated within the public system, primarily due to the existing funding models within the public setting.

> *"There is not a well-developed model of care in private practice mainly because there is no financially viable system (MBS doesn't support the model of care that is considered best practice in pall care)."*

> *"It is hard for us (private hospital provider) to fund a multidisciplinary approach as required by best practice in palliative care within the private health system. It is difficult to cover the cost of the service via a case payment. We currently cross subsidise because we believe we should offer this service but it is not sustainable in the longer term."*

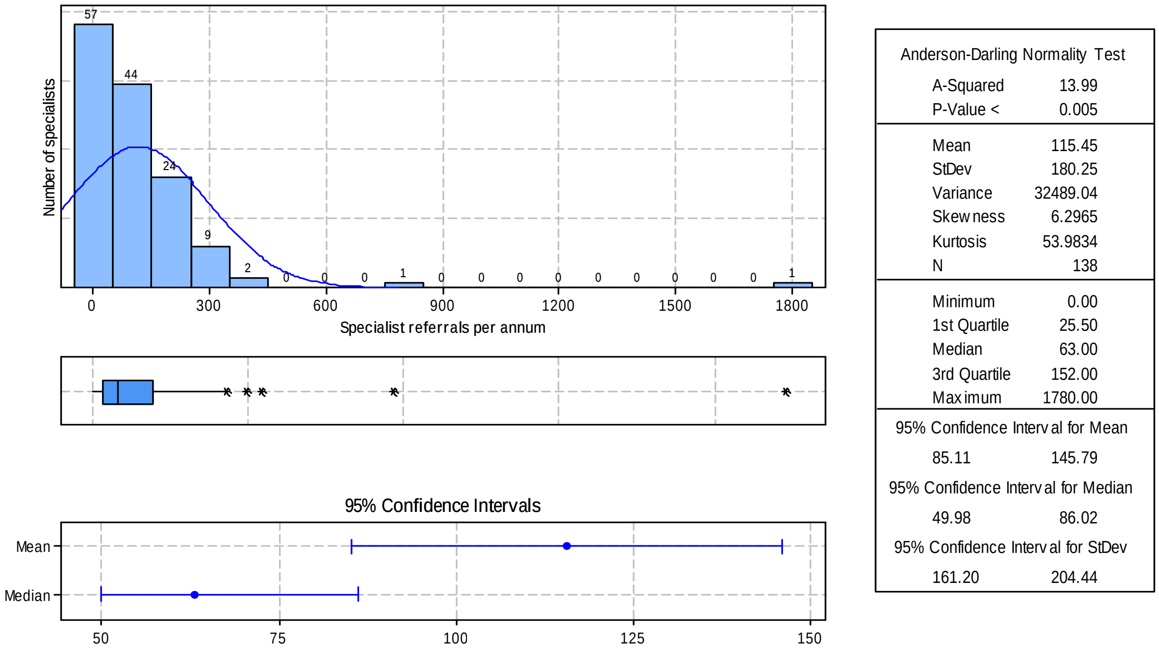
4.3.3 PRIVATE PRACTICE ARRANGEMENTS

Analysis of de-identified MBS billing data from Chapter Fellows indicates that around 64% of all palliative medicine specialists are likely to provide private services across Australia.

Analysis of the specific billing patterns of each palliative care specialist, the total number of annual referrals (captured via analysis of the number of initial presentations) in 2012-13 *averages* (per MBS billing specialist) around:

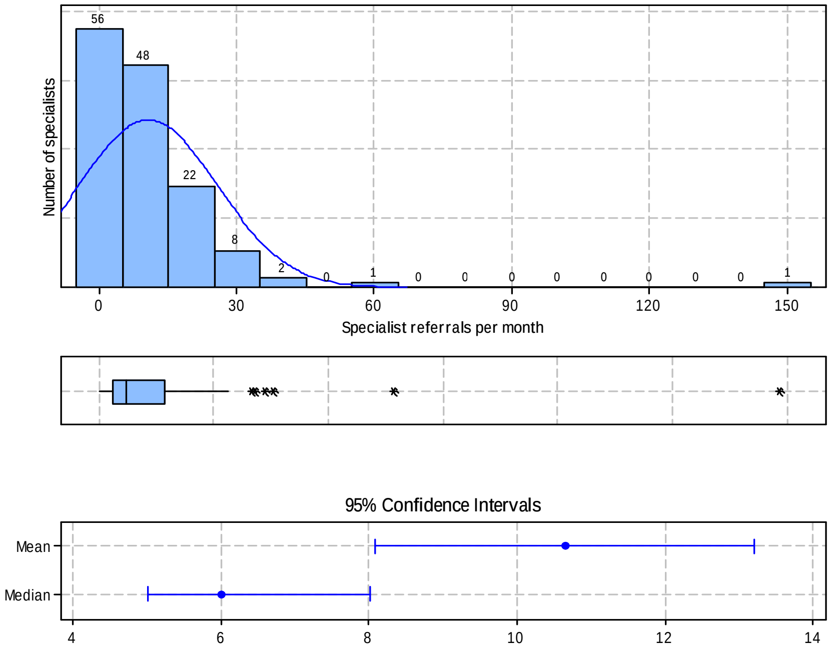
- 115 referrals per specialist each year (Figure 4-9);
- 11 referrals per specialist each month (Figure 4-10);
- 3 referrals per specialist each week (Figure 4-11); or
- 1 referral per specialist each day (Figure 4-12).

Figure 4-9: Number of specialist referrals per annum



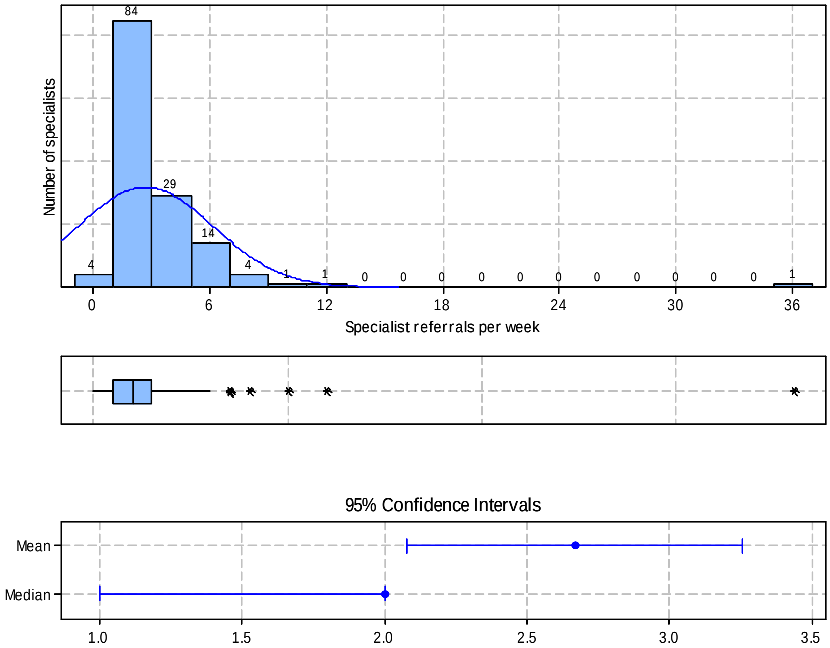
Anderson-Darling Normality Test	
A-Squared	13.99
P-Value <	0.005
Mean	115.45
StDev	180.25
Variance	32489.04
Skewness	6.2965
Kurtosis	53.9834
N	138
Minimum	0.00
1st Quartile	25.50
Median	63.00
3rd Quartile	152.00
Maximum	1780.00
95% Confidence Interval for Mean	
85.11	145.79
95% Confidence Interval for Median	
49.98	86.02
95% Confidence Interval for StDev	
161.20	204.44

Figure 4-10: Number of specialist referrals per month



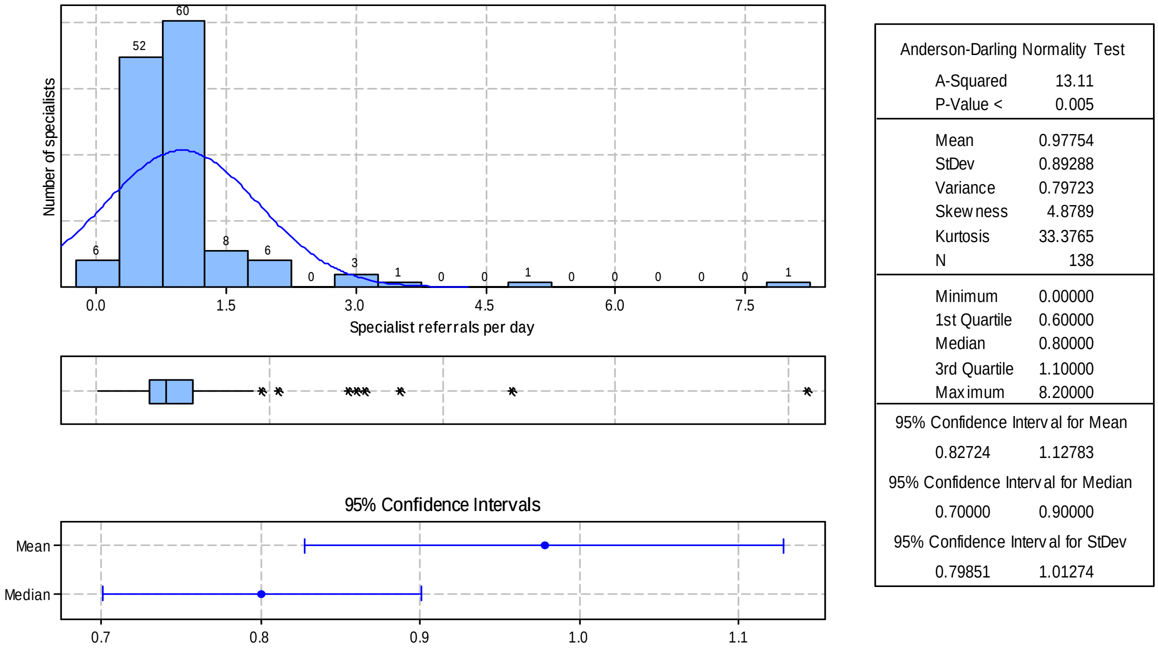
Anderson-Darling Normality Test	
A-Squared	13.10
P-Value <	0.005
Mean	10.645
StDev	15.198
Variance	230.975
Skewness	5.9274
Kurtosis	49.3090
N	138
Minimum	0.000
1st Quartile	3.000
Median	6.000
3rd Quartile	14.250
Maximum	148.000
95% Confidence Interval for Mean	
8.087	13.203
95% Confidence Interval for Median	
5.000	8.000
95% Confidence Interval for StDev	
13.592	17.238

Figure 4-11: Number of specialist referrals per week



Anderson-Darling Normality Test	
A-Squared	15.45
P-Value <	0.005
Mean	2.6667
StDev	3.4942
Variance	12.2092
Skewness	6.7022
Kurtosis	60.8061
N	138
Minimum	0.0000
1st Quartile	1.0000
Median	2.0000
3rd Quartile	3.0000
Maximum	36.0000
95% Confidence Interval for Mean	
2.0785	3.2548
95% Confidence Interval for Median	
1.0000	2.0000
95% Confidence Interval for StDev	
3.1249	3.9632

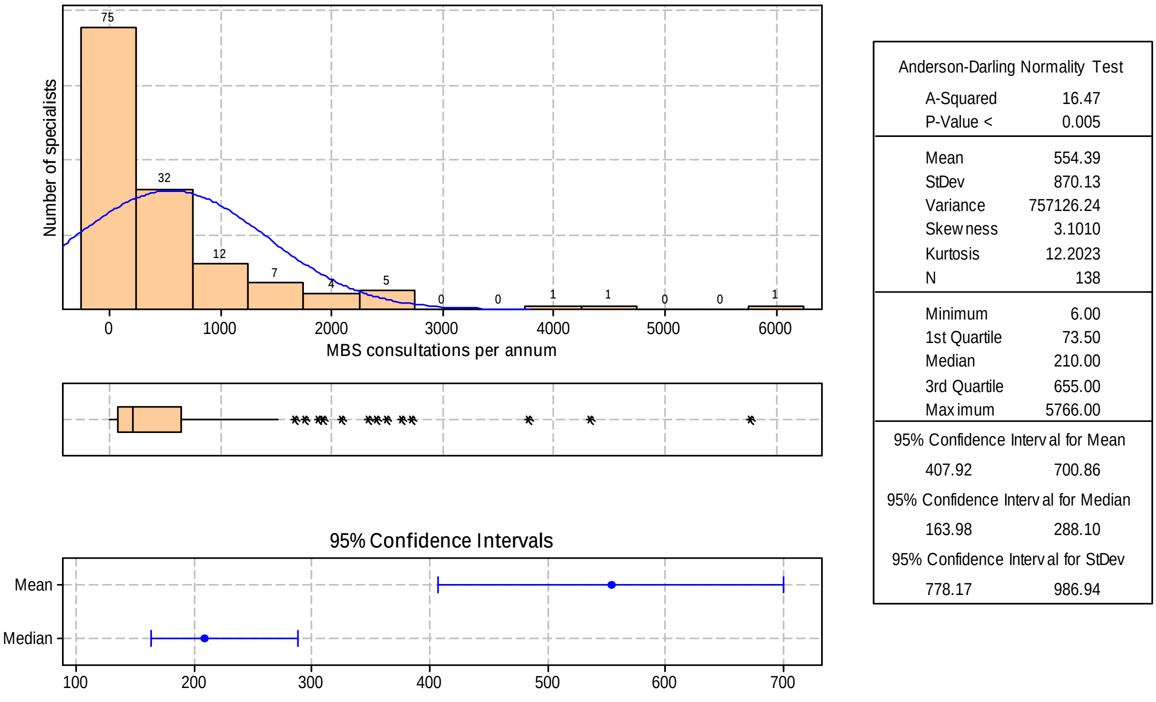
Figure 4-12: Number of specialist referrals per day



Analysis of total MBS billing patterns by specialists indicates that the average number of MBS items claimed per year is around 550, but with significant variation between specialists (Median = 210). A small number of specialists are billing 3000 or more episodes per annum (Figure 4-13). Results are presented in Figure 4-13 to Figure 4-16 below.

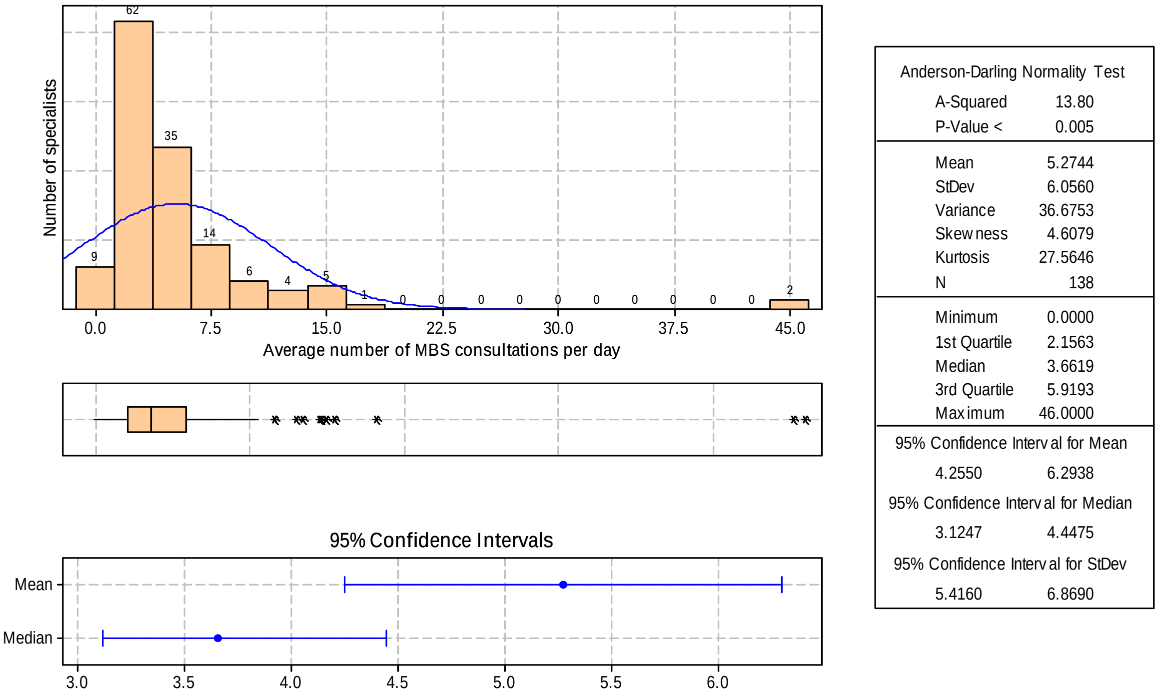
Most specialists undertake around 4 to 5 MBS billed consultations per day, 2 to 3 times per week, for 33 to 36 weeks each year.

Figure 4-13: Total MBS billing episodes per annum



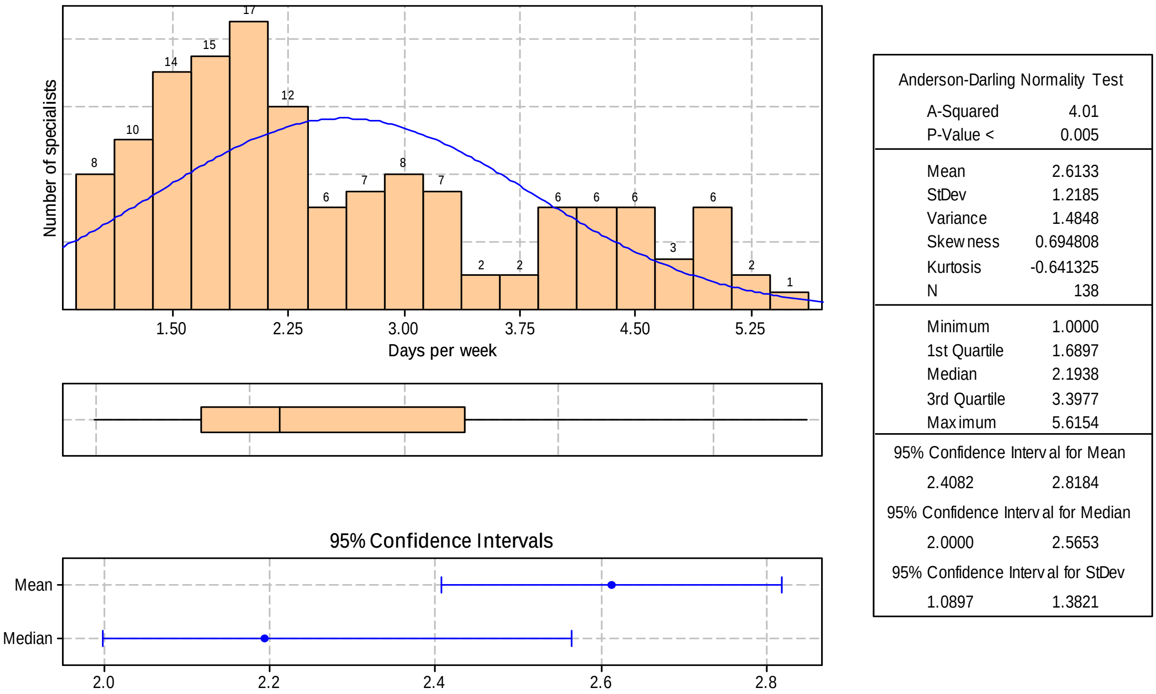
Anderson-Darling Normality Test	
A-Squared	16.47
P-Value <	0.005
Mean	554.39
StDev	870.13
Variance	757126.24
Skewness	3.1010
Kurtosis	12.2023
N	138
Minimum	6.00
1st Quartile	73.50
Median	210.00
3rd Quartile	655.00
Maximum	5766.00
95% Confidence Interval for Mean	
407.92	700.86
95% Confidence Interval for Median	
163.98	288.10
95% Confidence Interval for StDev	
778.17	986.94

Figure 4-14: Average MBS billing episodes per day



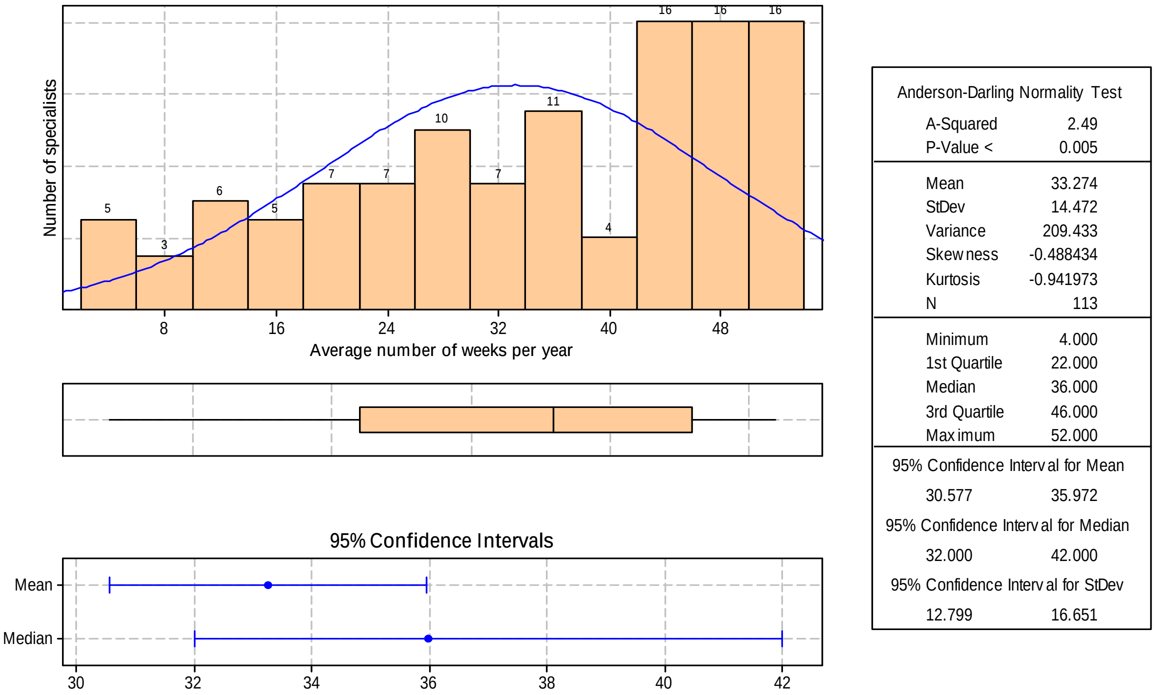
Anderson-Darling Normality Test	
A-Squared	13.80
P-Value <	0.005
Mean	5.2744
StDev	6.0560
Variance	36.6753
Skewness	4.6079
Kurtosis	27.5646
N	138
Minimum	0.0000
1st Quartile	2.1563
Median	3.6619
3rd Quartile	5.9193
Maximum	46.0000
95% Confidence Interval for Mean	
4.2550	6.2938
95% Confidence Interval for Median	
3.1247	4.4475
95% Confidence Interval for StDev	
5.4160	6.8690

Figure 4-15: Average days per week of MBS billing



Anderson-Darling Normality Test	
A-Squared	4.01
P-Value <	0.005
Mean	2.6133
StDev	1.2185
Variance	1.4848
Skewness	0.694808
Kurtosis	-0.641325
N	138
Minimum	1.0000
1st Quartile	1.6897
Median	2.1938
3rd Quartile	3.3977
Maximum	5.6154
95% Confidence Interval for Mean	
2.4082	2.8184
95% Confidence Interval for Median	
2.0000	2.5653
95% Confidence Interval for StDev	
1.0897	1.3821

Figure 4-16: Average weeks per year of MBS billing



Anderson-Darling Normality Test	
A-Squared	2.49
P-Value <	0.005
Mean	33.274
StDev	14.472
Variance	209.433
Skewness	-0.488434
Kurtosis	-0.941973
N	113
Minimum	4.000
1st Quartile	22.000
Median	36.000
3rd Quartile	46.000
Maximum	52.000
95% Confidence Interval for Mean	
30.577	35.972
95% Confidence Interval for Median	
32.000	42.000
95% Confidence Interval for StDev	
12.799	16.651

4.4 Comparator specialty groups

A wide range of different medical specialties are likely to be involved in palliative management of patients in the final stages of illness; including (but by no means limited to):

- GPs;
- Oncologists;
- Geriatricians;
- General physicians;
- Cardiologists;
- Renal physicians;
- Respiratory physicians; and
- A number of different surgical specialists.

As has been demonstrated in Chapter 2, it is not possible to distinguish palliative care management undertaken by different medical specialists from the management of patients by palliative medicine specialists. The exception to the majority of these craft groups are GPs. Data has previously been presented demonstrating that an estimated 23,500 patients may receive palliative care management by GPs each year. As such, GPs remain the major comparison group to specialists in palliative medicine.

What remains unknown, however, is the extent to which best practice (comprehensive) palliative care is effectively or safely delivered by other specialists - compared with the competencies of palliative care specialists and the multidisciplinary approach they are trained to deliver.

> *"The main difference between palliative care specialist and other physicians/GPs is the holistic approach we adopt in our model of care – the importance of social structures including family and carer aspects are very important in what we do. They also have a greater knowledge of specialist medications for pain and ability to deal with complex pain management issues including use of opioids"*

> *"Palliative care consultants have an acute view of what their patients may need, are able to access other linked services and are better at symptom management."*

> *"The big point of difference between palliative care and other specialities is having very clear goals of care and limitation of goals that are clear to the patient and family. Another point of difference is that palliative care specialists are better at symptom management, particularly pain management."*

4.4.1 PALLIATIVE MEDICINE AND GENERAL PRACTITIONERS

It has been suggested that GPs are in an ideal position to be involved in the provision of Palliative Care. In particular:

- The central principles of general practice (continuity of care, treatment in the context of the patient and psychosocial factors) are closely aligned to those of Palliative Care;[99]

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[99] Mitchell GK. How well do general practitioners deliver palliative care? A systematic review. Palliat Med. 2002 Nov;16(6):457-64.

- In studies of terminal illness, patients have stated a preference for management by a GP and a wish to die at home;[100]
- GPs provide much of the medical care required by patients who die in the community.[101] Australian GPs see a median of five to six terminally ill patients per annum[102] and, in the UK, GPs see patients 20 times on average in the last 12 months of their lives;[103]
- GPs are in a position to identify patients requiring palliative care and assist in care planning. However, the need to introduce systematic case-finding into general practice has been raised,[104] similar to needs-based assessments being developed for cancer patients;[105]
- GPs often have intimate knowledge of a patient and the family environment, and feel they can provide emotional support to palliative patients and their families by being the physician they can talk to about the disease, their fears, and death itself.[106] This can add value to a Palliative Care service. Australian evidence suggests that case conferencing between GPs and Palliative Care services can improve patients' quality of life;[107]
- Because of the perceived shortfall in palliative specialist numbers, involvement of GPs is necessary to meet the growing demand for Palliative Care for the Australian population.[108]

Despite this, 25% of the Australian General Practice workforce chooses not to administer palliative care.[109] GPs not providing such care were more likely to be younger, work less hours, have less general practice experience, and be educated overseas. In a survey of 1,969 GPs,[110] most participants preferred to be involved in cancer prevention (86%) and initial diagnosis (85%), rather than follow up after treatment (68%), and palliative care (68%). Only 52% of GPs (particularly if older or in rural or group practice) had a preference for providing supportive care to manage the symptoms of cancer treatment.

Barriers perceived by GPs in providing Palliative Care have been reported to include:

- Lack of training in Palliative Care, including pain and symptom control and bereavement care.[111] This in turn results in inadequate knowledge and skills, especially regarding specific treatments to be provided in the home setting;[112]

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[100] Charlton RC. Attitudes towards care of the dying: a questionnaire survey of general practice attenders. Fam Pract. 1991 Dec;8(4):356-9.

[101] ibid

[102] Wakefield MA, Beilby J, Ashby MA. General practitioners and palliative care. Palliat Med. 1993;7(2):117-26.

[103] McKinley RK, Stokes T, Exley C, Field D. Care of people dying with malignant and cardiorespiratory disease in general practice. Br J Gen Pract. 2004;14:909–913.

[104] Mitchell GK, Johnson CE, Thomas K & Murray SA. Palliative care beyond that for cancer in Australia. Medical Journal of Australia 2010;193(2):124–6.

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- Difficulties in maintaining and delivering up-to-date and adequate knowledge and expertise;[113]
- Limited time, especially for time-consuming tasks such as fulfilling the role of care co-ordinator;[114,115]
- A lack of awareness of the activities of other professionals involved, because of non-optimal communication, coordination, or collaboration;[116]
- Lack of access to specialists or palliative care nursing services;[117]
- Delay in organizing necessary extra care for palliative patients, caused by bureaucracy and the lack of specialized personnel.[118]

A number of these concerns were initially raised by the RACGP when the AChPM initially sought specialist recognition from the AMC. General practice representatives were particularly concerned about the potential for 'de-skilling' of their profession following the introduction of a palliative care medical specialty area. Following subsequent clarification by the AMC with the RACGP the Council reported that:

> ***"As the knowledge base of palliative medicine rapidly expands it is unlikely that GPs will maintain the same relative skill compared to palliative medicine specialist even if the GPs maintain their current skill level. This was acknowledged by GPs who met the Review Group."***[119]
>
> ***and***
>
> ***"…the RACGP accepts that recognition of palliative medicine as a specialty and the enhanced education and training that will follow will benefit its members"***[120]

Examples of mutual benefit to both craft groups have included: negotiations to develop a diploma in palliative medicine for GPs with a specific interest in the area; ongoing collaborations in joint training; and, improvements in shared care arrangements between GPs and palliative medicine specialists. Thus, there is an acknowledged scope of practice overlap between both professional groups, but a mutual recognition of the value of each other's contribution to whole-of-life patient care.

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[113] ibid
[114] Rhee et al 2008
[115] ibid
[116] ibid
[117] Rhee et al 2008
[118] ibid
[119] Australian Medical Council (2005) p.26.
[120] Ibid p.27.

5 Current private sector remuneration arrangements

5.1 MBS items currently available to palliative care specialists

A total of 18 professional attendance items are currently available to medical practitioners registered to claim as palliative care specialists on the MBS (under Schedule 24). These items can be grouped into four categories as presented in Table 5-1.

Table 5-1: Current MBS item numbers available to all palliative care specialists

SHORT DESCRIPTION	SURGERY OR HOSPITAL	HOME VISIT	DISCHARGE CASE CONFERENCE	COMMUNITY CASE CONFERENCE
Professional attendance	3005	3018	-	-
Subsequent attendance	3010	3023	-	-
Minor subsequent attendance	3014	3028	-	-
Organise/coordinate – duration 15-30 mins	-	-	3032	3069
Organise/coordinate – duration 30-45 mins	-	-	3040	3074
Organise/coordinate – duration 45+ mins	-	-	3044	3078
Participate – duration 15-30 mins	-	-	3051	3083
Participate – duration 30-45 mins	-	-	3055	3088
Participate – duration 45+ mins	-	-	3062	3093

For those palliative care specialists, who may also be registered as physicians with the MBS (Schedule A4), five attendance items are available including:

- Initial attendance (item 110);
- Subsequent attendance (item 116);
- Minor subsequent attendance (item 119);
- Referred patient treatment and management plan – duration 45+ mins (item 132); and
- Review of referred treatment and management plan – duration 20+ mins (item 133).

Thus co-registered palliative care specialists who are also physicians are given allowance to claim for longer and more complex patient assessments that require detailed treatment and management planning.

5.2 Variations in access to MBS items for assessment

5.2.1 THE AVAILABILITY OF CURRENT ASSESSMENT ITEMS

Current MBS billing arrangements available to palliative medicine specialists depend upon whether or not they have registered on the MBS as fellows in palliative medicine, or rely upon other fellowships they have obtained prior to becoming a recognised fellow of the

Chapter of Palliative Medicine. According to Chapter fellowship data around 51%[121] of all palliative medicine specialists have another independent fellowship. When independent data relating to actual MBS claims are examined, it shows that around 66% of specialists have another fellowship qualification in addition to palliative care. Additional fellowships held by these palliative care specialists billing on the MBS are presented in (Table 5-2).

Table 5-2: Additional fellowships held by specialists billing on the MBS[122]

FELLOWSHIP GROUP AND CURRENT ELIBILITY TO CLAIM ON THE MBS	ESTIMATED PERCENT OF SPECIALISTS	MBS ITEM GROUP	MBS ITEM FOR INITIAL ATTENDANCE (BENEFIT AT 85%)	MBS ITEM FOR SUBSEQUENT ATTENDANCE (BENEFIT AT 85%)
Royal Australasian College of General Practitioners	*21%*	*A1*	*44* *($103.50)*	*36* *($70.30)*
Other fellowships[123]	*40%*	*A3*	*104* *($75.27)*	*105* *($36.55)*
Royal Australasian College of Physicians	*39%*	*A4*	*110* *($128.30)*	*116* *($64.20)*
Australasian Chapter of Palliative Medicine	100% (of 66% total)	A24	3005 ($128.30)	3010 ($64.20)

Under current arrangements, the rates of basic remuneration for palliative care specialists (under items 3005 and 3010) are equivalent to comparable items available to palliative care specialists who are also registered on the MBS as physicians (using items 110 and 116). So long as any other professional group is also registered as a palliative medicine specialist (e.g., GPs), it would remain more profitable and equitable to other colleagues to bill MBS items under the existing palliative care item numbers. Thus in summary:

For time-equivalent initial and subsequent attendances, there are no differences in the rates of specialist remuneration under current MBS arrangements for medical practitioners registered as palliative care specialists on the MBS.

MBS data indicates that 138 palliative care specialists registered and billing the MBS in 2012-13 will have conducted 15,939 referred hospital/consulting room or home/residential aged care assessments.[124]

As forecast for the end of the 2012-13 financial year, this equates to:

- 55% (8770) initial palliative care attendances in hospital/surgery (MBS item 3005);
- *18% (2903) initial physician attendances in hospital/surgery (MBS item 110);*
- *17% (2649) initial physician attendances as complex assessments (MBS item 132); and*

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[121] Identified from current registration data supplied by the Australasian Chapter of Palliative Medicine (July 2013). Eligible fellows were those aged 65 years of age or younger and registered to practice in Australia.

[122] As at July 2013. Note: Data obtained from AChPM; thus 100% (n=216) are FAChPM, 78 of those with a FAChPM also have a FRACP ((78/216) x 100 = 36%) etc.

[123] According to Chapter data other fellowships include the Australian College of Rural and Remote Medicine (2), Australian Faculty of Public Health Medicine (2), Faculty of Pain Medicine (2), Australasian Faculty of Rehabilitation Medicine (1), New Zealand College of General Practice (1), Royal Australian and New Zealand College of Radiology (1) and Royal College of Physicians (1)

[124] MBS item 3005, 3018,110, or 132.

- 10% (1617) initial palliative care attendances in a (usual) home environment (item 3018).

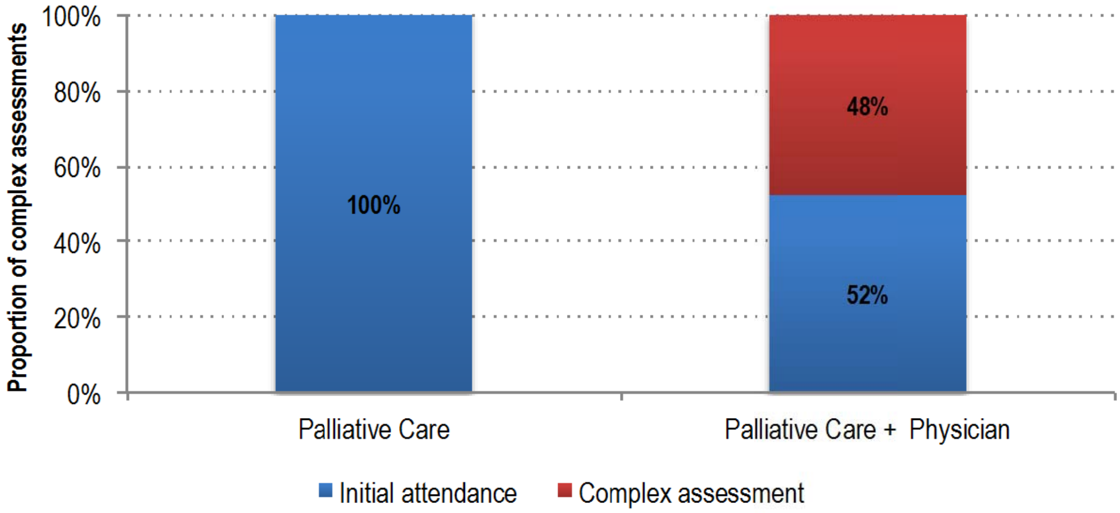
Of important note is that, around two thirds of all assessments were billed by palliative care specialists, and one third was billed under alternative fellowship and/or MBS registration arrangements (representing the proportion of palliative care specialists able to bill the MBS under a broader range of item numbers). Consultations with specialists emphasised these existing discrepancies in MBS billing arrangements.

> *"Currently we bill 3010 or 3005 and also use discharge planning item or family meeting 3074. Consultants use general physician rate 110 and 132/133 when there is a referring letter from a specialist."*

> *"Palliative care will not charge, or is unlikely to charge more than the scheduled fee so we are always short changed. By the time they come to palliative care, they've spent every 'zak' on the curative part of their course of care, so we only charge the rebate"*

Accordingly, patterns of billing assessment items between specialists who had access to physician equivalent items and those who did not were examined in the current MBS data. These findings are presented in Figure 5-1.

Figure 5-1: Proportion of standard and complex assessments[125]



As reported above, one third of all assessments (5552) were claimed under physician equivalent item numbers:

- Half (52%; 2903) of all assessments were billed as a routine initial attendance; and
- Half (48%; 2649) of all assessments were billed as a complex initial attendance.

Thus, palliative care specialists who are also physicians and able to claim for time spent in complex assessments spend around half (48%) of their time undertaking these activities in comparison to standard assessment activities. Palliative care specialists who are not physicians are unable to

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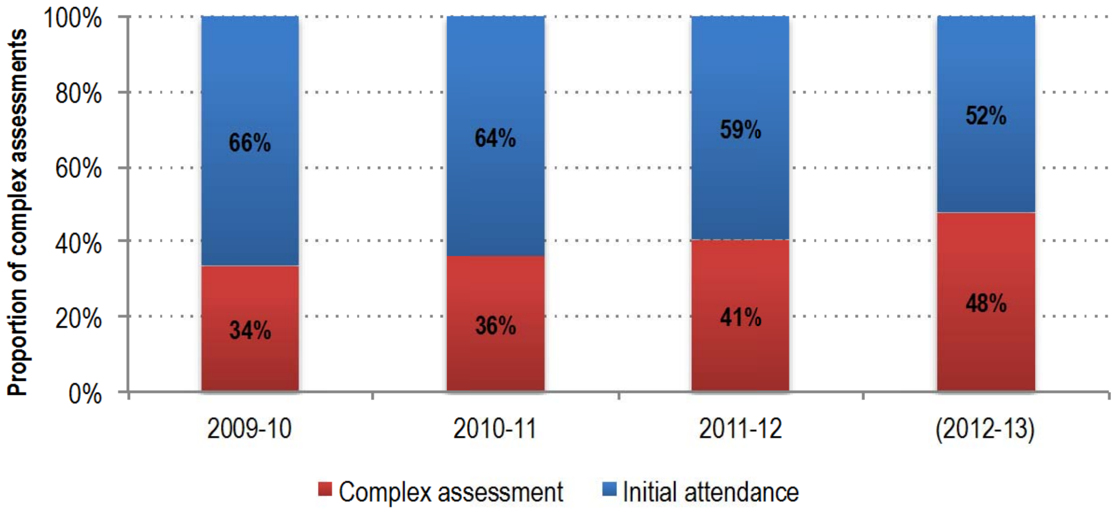
[125] Palliative Care (Items 3005 and 3018), Palliative Care + Physician (Items 110 and 132)

claim for any additional time spent in complex assessment and treatment planning.

Palliative care specialists who are not registered on the MBS as physicians do not have access to item numbers for more complex patients involving comprehensive assessment and treatment planning. Thus the true number of assessments requiring a longer period of complex assessment and treatment planning for the remaining two thirds of specialists billing on the MBS remain unknown. Notwithstanding, specialists have noted the extended time required to undertake assessments, particularly in the home and residential care environment, in order to gather clinical information that would otherwise be readily available in a hospital context.

> *"Typically initial assessments are complex and include case management plans which take approximately 90 minutes. This is particularly true if outpatient/ambulatory/home visit patient (non-inpatient) also has complex family dynamics."*
>
> *"Time taken for initial consultations (paediatric patients) is 60-90 minutes."*
>
> *"Home visits and hostel visits take longer – the information isn't as handy as in inpatient and clinic/consulting room settings and usually there are family members to deal with. These visits are usually done as a team so that they can be done as efficiently and comprehensively as possible."*

Figure 5-2: Trends in the use of complex assessment items[126]



Given the rising demand for palliative care reflected in the forecast data, current discrepancies in the capacity to undertake complex assessments between palliative care physicians and other palliative care specialists are likely to increase over the next three years (and beyond). An indication of this trend is presented in Figure 5-2.

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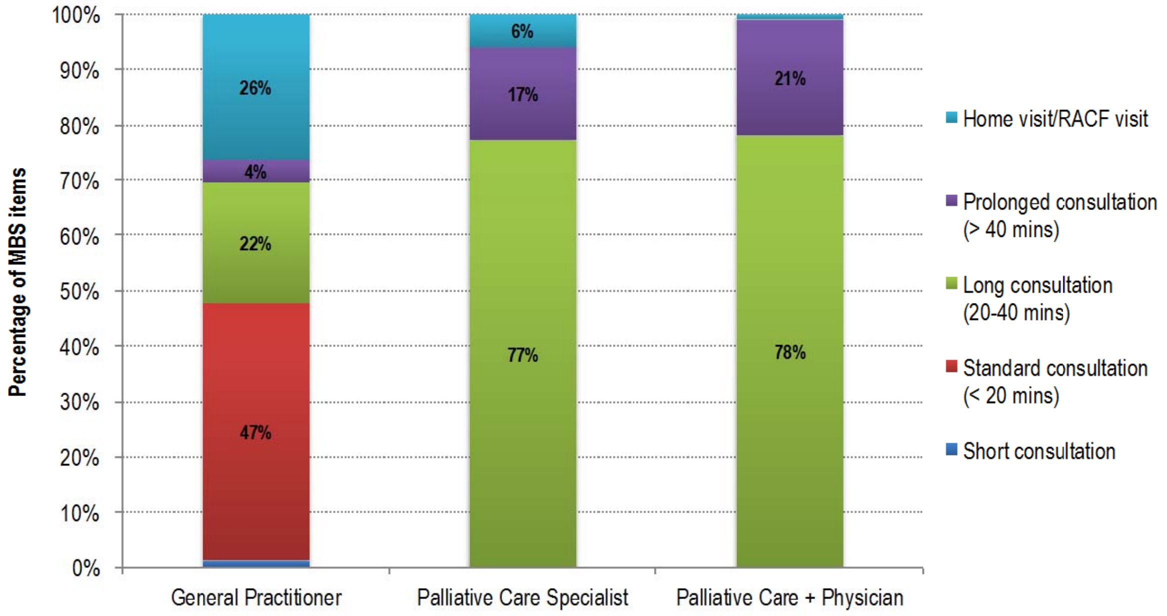
[126] Includes palliative care specialists who are also co-registered as physicians and relates to Items 110 and 132

5.3 Time spent by specialists and general practitioners

The relative proportion of MBS items billed by GPs, palliative medicine specialists without an associated physician fellowship, and palliative care specialists who have access to physician equivalent items are presented in Figure 5-3. Analysis of these comparisons reveals that, for GPs:

- Around half (47%) of all clinical time is spent in standard consultations lasting up to 20 minutes duration;
- Around one quarter (22%) of time is spent in longer consultations (between 20 and 40 minutes duration;
- A quarter (26%) of GP time is spent in home or residential aged care consultations; and
- Less than 5% of clinical time is devoted to prolonged consultation (including health assessments and chronic disease management planning).

Figure 5-3: MBS billing by GPs and palliative medicine specialists[127]



By contrast, palliative care specialists are able to:

- Spend more than three quarters of their clinical time (77%-78%) in long consultation with patients;
- Undertake a higher proportion (17%-21%) of prolonged consultations, which mostly comprise initial assessments, however;
- Spend very little time undertaking home or residential aged care consultations (1%-5%) compared with GPs.

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[127] Home/RACF visits refer to items 3018/3023; Prolonged consultations refer to items 3005/110/132: Long consultations refer to items 3010/116/133: Standard and short consultations refer to GP item numbers (e.g., 23)

It is understood that the lack of MBS billing in residential environments by palliative care specialists may be in part due to confusion about the current ability to apply MBS item 3018 (initial attendance) and 3023 (subsequent attendance) to residential aged care consultations.

> *"Changes to billing to recognise the residential aged care and more equitable billing would help people working in the community and would probably increase the number of people who can be treated in the a community setting."*

Nevertheless, based on observed patterns of current MBS billing it can be seen that:

Palliative care specialists are able to spend a greater proportion of their time with patients compared with GPs, who must manage a larger number and wider range of patients.

These findings are consistent with previous findings that GPs have more limited time to spend with patients experiencing palliative care-related problems. They also identify that specialists spend more time in complex assessment and care-coordination.

5.4 The modelled costs of current expenditure

The cost of current expenditure on palliative medicine was modelled from available MBS data. The approach to modelling is outlined in Chapter 7. A summary of the total data extract, which forms the basis for the modelling, is shown below in Table 5-3. Note the 2012/13 data is for six months only.

Table 5-3: Summary of MBS billing data – palliative medicine

	TOTALS				AVERAGE/SERVICE			
	2009/10	2010/11	2011/12	2012/13 (6 mths)	2009/10	2010/11	2011/12	2012/13 (6 mths)
Providers	130	134	150	150				
Services	93,012	101,589	112,971	62,496				
	$M	$M	$M	$M	$	$	$	$
Charge	7.336	8.416	9.705	5.569	78.87	82.84	85.91	89.10
Benefit	5.573	6.320	7.275	4.212	59.91	62.22	64.40	67.39
Out-of-pocket	1.763	2.096	2.430	1.357	18.96	20.63	21.51	21.71

Between 2009/10 and 2012/13, the number of providers has increased from 130 to 150, or 15.4%. Extending the 2012/13 data for a full 12 months indicates that services have grown by 34% and benefits paid have increased by 51% since 2009/10. The average benefit paid per service has grown from $59.91 in 2009/10 to $67.39 in 2012/13, an increase of 12.5%.

For the purposes of the modelling, the data extract described above was filtered to include only the major item numbers in Groups A4 (110, 116, 132, 133) and A24 (3005, 3010, 3018, 3023). A summary of the filtered data is shown in Table 5-4.

Table 5-4: Summary of filtered MBS billing data – palliative medicine

	TOTALS				AVERAGE/SERVICE			
	2009/10	2010/11	2011/12	2012/13 (6 mths)	2009/10	2010/11	2011/12	2012/13 (6 mths)
Providers	118	122	139	138				
Services	54,019	59,177	67,281	38,253				
	$M	$M	$M	$M	$	$	$	$
Charge	5.236	5.974	7.034	4.074	96.92	100.96	104.55	106.50
Benefit	3.774	4.256	4.996	2.921	69.86	71.93	74.25	76.37
Out-of-pocket	1.462	1.718	2.038	1.153	27.06	29.03	30.29	30.13

The filtered data in Table 5-4 exhibits similar growth patterns to the total data extract. Providers have grown by 17% across the period, services have increased by 42% and benefits paid are up by 55%. The average benefit paid per service has increased from $69.86 in 2009/10 to $76.37 in 2012/13, an increase of 9.3%.

5.4.1 DEMAND AND FINANCIAL PROJECTIONS

Using the filtered data from Table 5-4, separate growth estimates identified for “assessment” and “treatment” type service items and projections to 2014/15 are summarised in Table 5-5.

Please note that the amounts shown for 2014 to 2015 have not been indexed for inflation and are expressed in terms of 2013 dollars. The impact of inflation is included in Section 7.2.4.

Table 5-5: Estimated MBS billing data for total demand – palliative medicine

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Services	53,508	59,832	67,503	76,124	82,920	89,715
	$M	$M	$M	$M	$M	$M
Charge	5.186	6.048	7.042	8.115	8.868	9.621
Benefit	3.738	4.310	5.000	5.820	6.364	6.908
Out-of-pocket	1.448	1.738	2.042	2.295	2.504	2.713

Data for 2009/10 to 2011/12 differs slightly to Table 5-4 due to the statistical forecasting method adopted.

Palliative medicine demand is estimated at 76,124 services in 2012/13 and this is expected to increase by ~18% to 89,715 services by 2014/15. Benefits paid over the same period (excluding inflation) increase by ~19% from $5.820M in 2012/12 to $6.908M in 2015.

Table 5-6 shows a summary of assessment and treatment benefits paid by MBS item number under current billing patterns with projections to 2014/15.

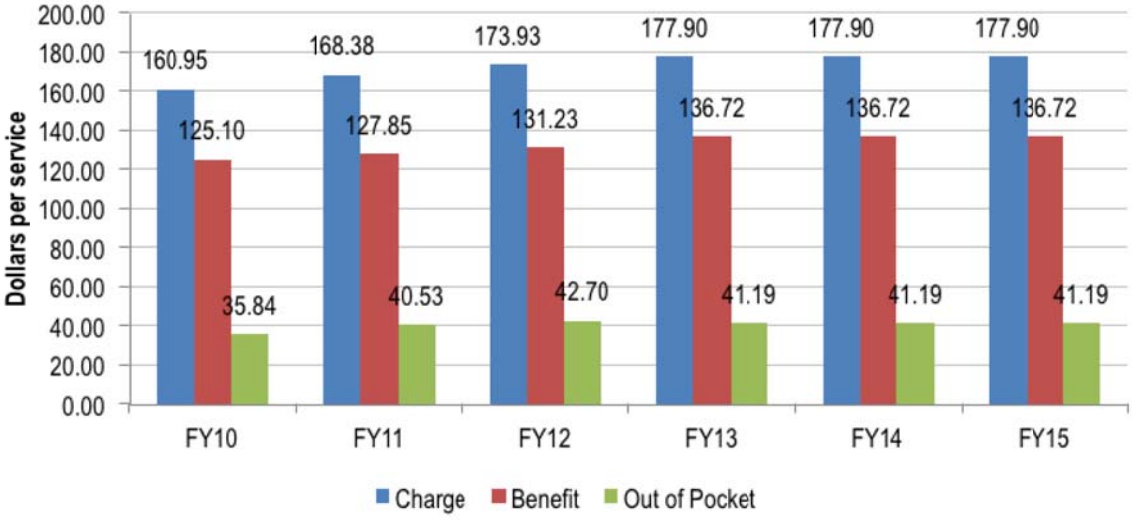
Table 5-6: Benefits paid by MBS item – 2009/10 to 2014/15[128]

Palliative Care	No of Services						Benefits Paid					
Current	FY10	FY11	FY12	FY13	FY14	FY15	FY10	FY11	FY12	FY13	FY14	FY15
Assessment												
3005	5,673	6,717	7,912	8,770	9,727	10,684	624,944	754,346	907,634	1,022,652	1,134,296	1,245,939
110	2,149	2,755	2,857	2,903	3,220	3,537	241,815	313,570	329,122	341,349	378,615	415,880
132	1,083	1,570	1,950	2,649	2,938	3,227	220,952	322,038	405,648	566,091	627,892	689,692
3018	1,220	1,006	1,288	1,617	1,793	1,970	178,976	150,392	195,833	248,985	276,167	303,349
Assessment total	10,125	12,048	14,008	15,939	17,679	19,419	1,266,686	1,540,345	1,838,238	2,179,078	2,416,969	2,654,860
Treatment												
3010	27,144	31,043	35,153	41,782	45,292	48,801	1,473,430	1,713,099	1,981,709	2,398,923	2,600,422	2,801,921
116	13,615	13,989	15,116	14,053	15,234	16,414	749,282	787,728	863,575	809,045	877,001	944,957
3023	1,866	1,531	1,628	2,259	2,449	2,639	169,203	142,489	151,617	211,549	229,318	247,087
133	758	1,221	1,598	2,091	2,266	2,442	78,998	125,790	165,181	221,453	240,054	258,656
Treatment total	43,383	47,784	53,495	60,186	65,241	70,296	2,470,912	2,769,106	3,162,082	3,640,970	3,946,795	4,252,620
Grand Total	53,508	59,832	67,503	76,124	82,920	89,715	3,737,598	4,309,451	5,000,320	5,820,048	6,363,764	6,907,480

The data presented in Table 5-6 will be used as the basis for comparison modelling of alternative billing scenarios described in Chapter 6 and presented in Chapter 7.

Figure 5-4 and Figure 5-5 show the average charge, benefit and out-of pocket amounts for assessment and treatment services respectively, under current operating conditions.

Figure 5-4: Assessment services – average $ per service by financial year



The averages for assessment type services in 2013 were a charge of $177.90, benefit $136.72 and out-of-pocket $41.19

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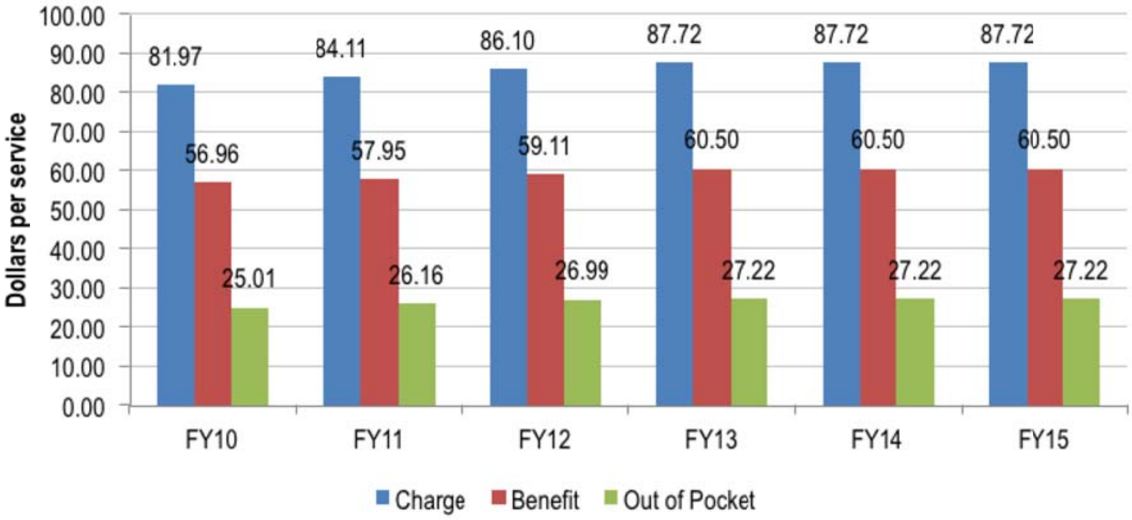
[128] Data presented in this table (and all future tables relating to modelling) is based upon a linear projection of the three years of obtained MBS data – in order to forecast/estimate the likely future demand for services (from 2013 to 2015).

Figure 5-5: Treatment services - average $ per service by financial year



In 2013, the average charge for treatment type services was $87.72, the benefit was $60.50 and the out-of-pocket amount was $27.22.

6 Options for future private sector remuneration

Two dedicated MBS item numbers have been proposed in the Decision Analytic Protocol by MSAC, following earlier consultations with palliative medicine specialists. Two additional MBS items have been more recently suggested to align scope of practice of palliative medicine specialists in both public and private sectors. These and other potential items are presented in the following sections of this Chapter for consideration by MSAC.

6.1 Principles underlying item design

Item numbers proposed for consideration by MSAC have been framed in accordance with several key principles, including (but not necessarily limited to):

- Consistency: Of any new items with other items currently listed (or proposed for listing) on the MBS.
- Professional recognition: Of the specialty of palliative medicine alongside other specialties acknowledged by the AMC.
- Equity of reimbursement: Of palliative medicine specialists in an equivalent manner to other accredited specialists claiming on the MBS.
- Safe and effective care: To enable patients to receive safe and effective interventions.
- Responsiveness: To enable the best interests of patients to be addressed in a timely and comprehensive manner by the most appropriate specialist, rather than distributing service provision across multiple alternative service providers in order to meet patient need.
- Efficiency: To provide the most appropriate suite of services in order to achieve maximum outcomes within a minimum number of occasions of service for each patient.
- Access to services: By promoting workforce development of the specialty area to increase specialist supply in both the public and private sectors.
- Care co-ordination: To streamline access to the most appropriate range of medical, psychological, social, and spiritual and other services required to address the needs of patients with palliative care related concerns.
- Minimal cost to consumers: To minimise out-of-pocket costs to consumers associated with multiple specialty referrals.
- Ethical behaviour: To minimise over-servicing to patients whilst maximising potential benefits of clinical interventions (however applied in accordance with best available evidence).

6.2 Rationale for new or modified item numbers

Based upon the evidence gathered throughout the current review, several key factors underlie the development of new item numbers for palliative medicine specialists:

- The combination of skills demonstrated by palliative care physicians are uniquely recognised as a specialist skill by the AMC and are supported by GPs together with a range of other medical specialists;

- Patients requiring palliative care services currently experience a median of four hospital admissions during the final year of their lives (but may be significantly more for some patients: average seven admissions). Hospital admissions for the majority of these patients are potentially preventable;
- Palliative care patients transition through four major stages of need and this translates into four stages of service delivery, whereby:
  - A patient may be diagnosed as palliative but be relatively ‘stable’, necessitating an initial assessment that may or may not be ‘routine’ (depending upon patient illness, adjustment and family issues);
  - A patient may become clinically ‘unstable’ requiring at minimum a review, but at a maximum a re-assessment of their clinical condition and treatment plan to adjust for any new illnesses (e.g. spinal cord compression secondary to other neoplastic disease), patient/family responses and any changes to previously established care arrangements;
  - A patient may then transition to the point of ‘deterioration’, which again may require a complete re-assessment of their needs depending upon any variations from the predicted trajectory of their disease progression; and finally
  - A patient will enter the ‘terminal’ phase of their illness, typically requiring a review by a palliative medicine specialist.
- Thus, following initial assessment (which may or may not be complex), at least one re-assessment is required through the palliative care journey. Specialists are currently not reimbursed to undertake more than one assessment.
- The majority of patient assessments, particularly in the community context, take upwards of one hour to complete. This is attributed to the time taken to gather an appropriate patient history and discuss treatment options with individuals and their carers. By contrast, whilst longer duration assessments can also take place in a hospital/surgery environment (due to complex diagnostic, individual or family issues requiring complex management planning), there is typically better access to pre-collected patient information. It is also noteworthy that specialists’ estimates of the time to conduct longer community assessments have not appeared to factor travel time into consideration.
- The effectiveness of palliative care interventions is well recognised. Moreover, the benefits of community palliative care are particularly noted in the clinical literature and by a range of medical, nursing and other health professionals. Time taken to properly assess and manage patients in the community has a demonstrated ability to reduce their need for admissions to hospital (by around 87.5%).
- The costs of community palliative care have been reported in the overseas literature and estimated here in Australia to be around half of the costs associated with inpatient palliative care, and between 80% (standard daily inpatient) to 95% (intensive unit) cheaper than other types of admitted hospital care.
- Current funding arrangements do not align with the model of palliative care service development from a medical specialist perspective, by not allowing reimbursement for actual time spent with patients and their families.
- Current funding arrangements through the MBS are more appropriate for palliative care specialists who have historically qualified (or have subsequently sought) a fellowship of the RACP. This subgroup of physician/palliative care specialists have made increasing use of MBS item numbers for complex assessment and treatment planning in accordance with the actual time spent with patients.

Thus, proposed alternatives for future MBS billing arrangements are now presented in the following sections.

6.3 MBS items for professional attendances

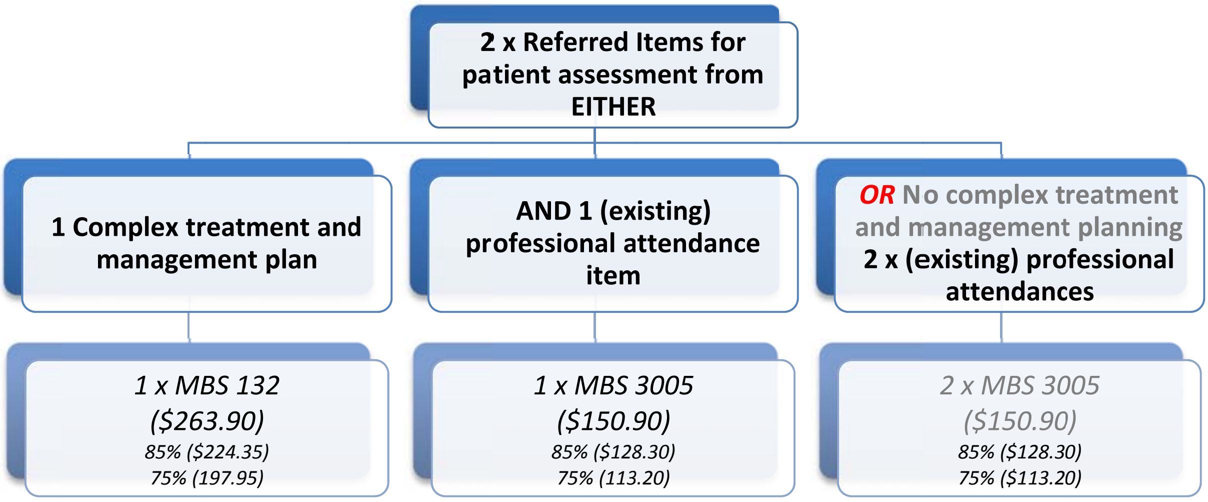
Two options for MBS items have been proposed to reimburse professional consultations undertaken by palliative medicine specialists, relating to:

- Provision of access to two additional initial attendance items to allow for complex treatment and management planning. These items would be used in addition to the current initial attendance item 3005 or 3018 to allow for longer and more complex consultations occurring in:
  - Hospital or surgery consultations; and
  - Home, residential or other community care environments;
- Re-structuring of all current items based upon a time-tiered approach (regardless of initial attendance, complex treatment and management planning, or subsequent attendance), taking place in:
  - All hospital or surgery consultations; and
  - All home, residential or other community care environments.

Physician equivalent items

It is proposed that an additional MBS item, either another claim against the existing initial assessment item (MBS item 3005), or a claim against an equivalent item to that available for consultant physicians to undertake complex treatment and management planning (MBS item 132), be allowed for palliative care specialists to undertake two formal assessments for a given patient in any given year (Figure 6-1).

Figure 6-1: Proposed items for initial attendance including complex treatment and management planning[129]



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[129] Please note that modelling is on actual (average) patterns of service delivery claims (which are a mixture of items billed at 75% and 85%).

It is suggested that the new item descriptor follow the same structure as the 132 MBS item currently available to Physicians (Figure 6-2).

Figure 6-2: Proposed items descriptors for complex patients

PALLIATIVE CARE MEDICINE SPECIALIST, REFERRED PATIENT TREATMENT AND MANAGEMENT PLAN - SURGERY OR HOSPITAL

MBS Item XXXX

Professional attendance of at least 45 minutes duration for an initial assessment of a patient with at least two morbidities, where the patient is referred by a referring practitioner, and where:

a) assessment is undertaken that covers:
   - a comprehensive history, including psychosocial history and medication review;
   - comprehensive multi or detailed single organ system assessment;
   - the formulation of differential diagnoses; and

b) a consultant physician treatment and management plan of significant complexity is developed and provided to the referring practitioner that involves:
   - an opinion on diagnosis and risk assessment
   - treatment options and decisions
   - medication recommendations

Not being an attendance on a patient in respect of whom, an attendance under items 3005, 3010 or 3014 has been received on the same day by the same palliative care medicine specialist.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been made under this item for attendance by the same palliative care medicine specialist.

Fee: $263.90 Benefit: 75% = $197.95 85% = $224.35

PALLIATIVE CARE MEDICINE SPECIALIST, REFERRED PATIENT TREATMENT AND MANAGEMENT PLAN – OUTSIDE OF SURGERY OR HOSPITAL

MBS Item XXXX

Professional attendance of at least 45 minutes duration for an initial assessment of a patient with at least two morbidities, where the patient is referred by a referring practitioner, and where:

a) assessment is undertaken that covers:
   - a comprehensive history, including psychosocial history and medication review;
   - comprehensive multi or detailed single organ system assessment;
   - the formulation of differential diagnoses; and

b) a consultant physician treatment and management plan of significant complexity is developed and provided to the referring practitioner that involves:
   - an opinion on diagnosis and risk assessment
   - treatment options and decisions
   - medication recommendations

Not being an attendance on a patient in respect of whom, an attendance under items 3018, 3023 or 3028 has been received on the same day by the same palliative care medicine specialist.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been made under this item for attendance by the same palliative care medicine specialist.

Fee: $263.90 Benefit: 75% = $197.95 85% = $224.35

Consideration was given to recommending access to the physician equivalent 133 (follow-up of referred treatment and management planning). However, the addition of these items was considered to under-reimburse any requirements for a second comprehensive patient assessment. Accordingly, scenario modelling for the single complex treatment and management planning item has assumed that:

- Costs for 60% of all hospital or surgery assessments (currently billed as MBS item 3005 by non-physician palliative care specialists) would be transferred to rates for complex assessment and treatment planning. Any additional assessment (conducted either before or after the 132 equivalent item) would involve the current initial attendance available to specialists (MBS item 3005).
- Costs for 85% of all non-hospital (or surgery) assessments (currently billed as MBS item 3018 by non-physician palliative care specialists) would be transferred to rates for complex assessment and treatment planning. Again, any additional assessment (conducted either before or after the 132 equivalent item) would involve the current initial attendance available to specialists (MBS item 3005).
- These converted rates were allocated across current and projected assessment items for non-physician palliative care specialists and added to the current and projected proportion of standard (110) and complex (132) assessments undertaken by physician qualified palliative care specialists.

Results of the scenario modelling are presented in Chapter 7.

Time-tiered items

An alternative approach to claiming physician equivalent items for palliative medicine would be to allow a time-tiered structure by which specialists could bill for actual time spent with any individual patient. This approach parallels existing MBS items available for General Practice (Items: 3, 23, 36 and 44). It has been previously proposed that time-tiered items would enable greater flexibility to respond to the fluctuating needs of individual patients, although others note that it is more administratively burdensome to apply.

Two sets of time-tiered items are proposed for consideration:

- One group for assessments, maintaining the provision for two assessments per patient per year for specialists (as previously described); and
- The other for all subsequent attendances.

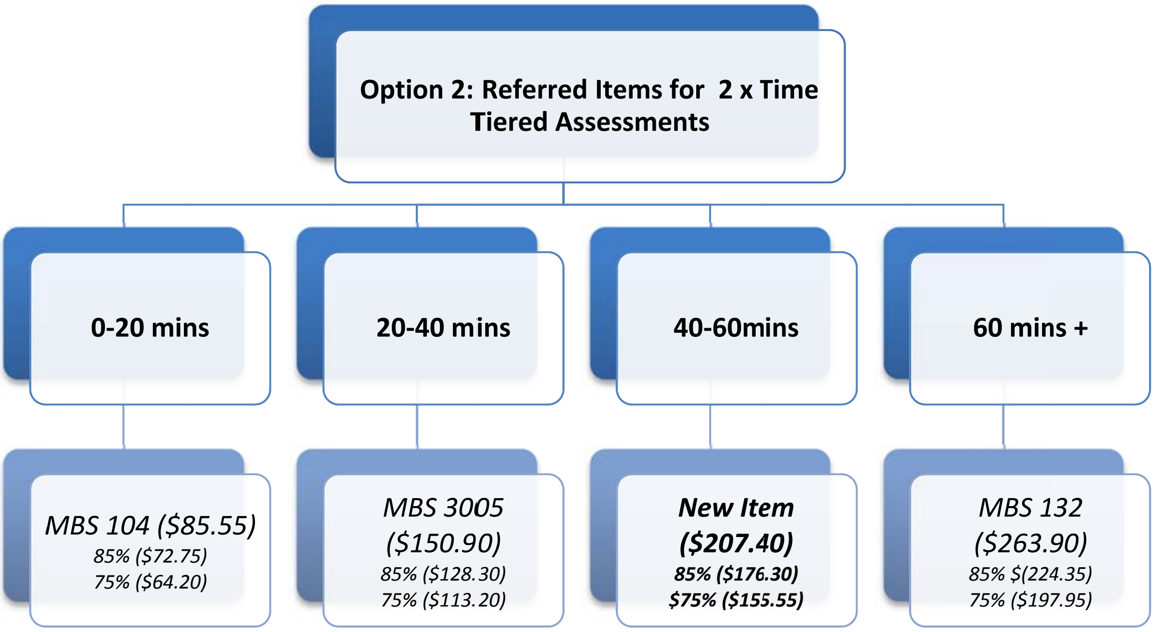
Under the proposed structure for time-tiered assessment items, the first tier has been anchored so as not to exceed the rates available under the A3 schedule (item 104), the second tier has been structured so as not to exceed the rates available under the current assessment item for specialists under the A24 schedule (item 3005), an intermediate tier has been introduced to fill an existing gap in the current MBS item structure, and a final tier has been anchored so as not to exceed the rate available to physicians for complex assessment and treatment planning under the A4 schedule (item 132). The time-tiered breakdown has been structured to allow for:

- Consultations that lasts not more than 20 minutes duration;
- Consultations that last more than 20 but not more than 40 minutes duration;

- Consultations that last more than 40 but not more than 60 minutes duration; and
- Consultations that last for more than 60 minutes duration.

The proposed MBS item descriptors for each set of time-tiered assessment items are presented in Figure 6-4.

Figure 6-3: Proposed structure for time-tiered assessment items[130]



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[130] Please note that modelling is on actual (average) patterns of service delivery claims (which are a mixture of items billed at 75% and 85%).

Figure 6-4: Proposed item descriptors for time-tiered assessments

Category 1 – Professional attendances

MBS Item YYY1

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an initial or subsequent assessment of not more than 20 minutes duration.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been received under any more than one of YYY1, YYY2, YYY3, or YYY4 for attendance by the same palliative care medicine specialist.

Fee: $88.55 Benefit: 75% = $66.41 85% = $75.27

MBS Item YYY2

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an initial or subsequent assessment of more than 20 minutes, but not more than 40 minutes duration.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been received under any more than one of YYY1, YYY2, YYY3, or YYY4 for attendance by the same palliative care medicine specialist.

Fee: $150.90 Benefit: 75% = $113.18 85% = $128.27

MBS Item YYY3

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an initial or subsequent assessment of more than 40 minutes, but not more than 60 minutes duration.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been received under any more than one of YYY1, YYY2, YYY3, or YYY4 for attendance by the same palliative care medicine specialist.

Fee: $207.40 Benefit: 75% = $155.55 85% = $176.29

MBS Item YYY4

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - an initial or subsequent assessment of more than 60 minutes duration.

Not being an attendance on the patient in respect of whom, in the preceding 12 months, payment has been received under any more than one of YYY1, YYY2, YYY3, or YYY4 for attendance by the same palliative care medicine specialist.

Fee: $263.90 Benefit: 75% = $197.93 85% = $224.32

Figure 6-5: Proposed structure for time-tiered subsequent items

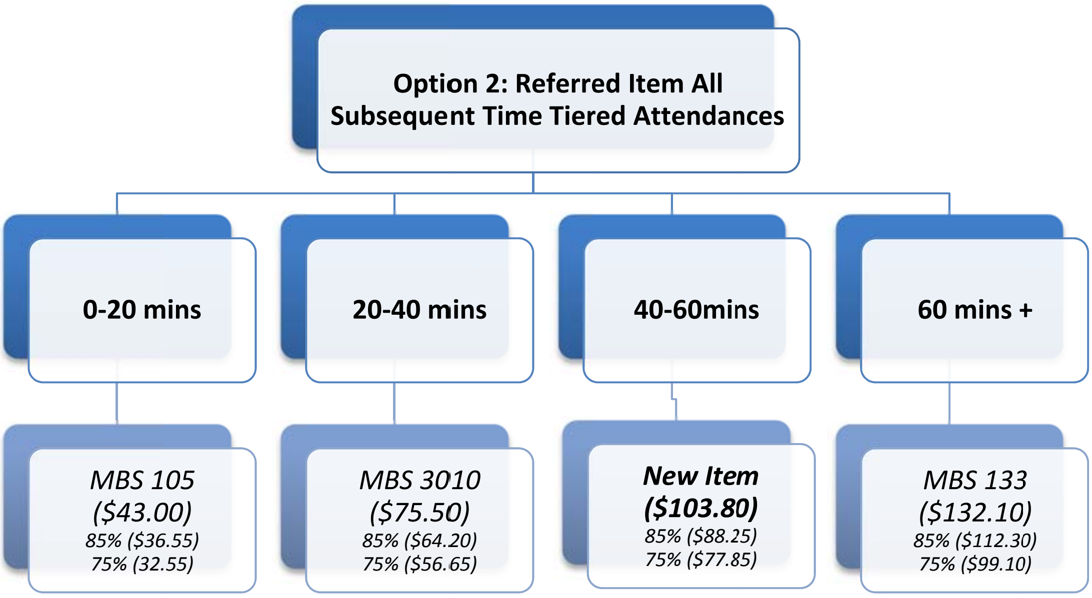


Figure 6-6: Proposed item descriptors for time-tiered subsequent consultations

Category 1 – Professional attendances

MBS Item ZZZ1

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - a subsequent attendance to an initial or subsequent assessment of not more than 20 minutes duration.

Fee: $43.00 Benefit: 75% = $32.25 85% = $36.55

MBS Item ZZZ2

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - a subsequent attendance to an initial or subsequent assessment of more than 20 minutes, but not more than 40 minutes duration.

Fee: $75.50 Benefit: 75% = $56.63 85% = $64.18

MBS Item ZZZ3

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - a subsequent attendance to an initial or subsequent assessment of more than 40 minutes, but not more than 60 minutes duration.

Fee: $103.80 Benefit: 75% = $77.85 85% = $88.23

MBS Item ZZZ4

Professional attendance by an palliative care medicine specialist in the practice of his or her specialty, following referral of the patient to him or her by a medical practitioner - a subsequent attendance to an initial or subsequent assessment of more than 60 minutes duration.

Fee: $132.10 Benefit: 75% = $99.08 85% = $112.29

Under the proposed structure for time-tiered subsequent items (Figure 6-5) the first tier has been anchored so as not to exceed the rates available under the A3 schedule (item 105), the second tier has been structured so as not to exceed the rates available under the current assessment item for specialists under the A24 schedule (item 3010), an intermediate tier has been introduced to fill an existing gap in the current MBS item structure, and a final tier has been anchored so as not to exceed the rate available to physicians for complex assessment and treatment planning under the A4 schedule(item 133).

To maintain consistency with assessment items the time-tiered breakdown for subsequent consultations has been structured to allow for:

- Consultations that lasts not more than 20 minutes duration;
- Consultations that last more than 20 but not more than 40 minutes duration;
- Consultations that last more than 40 but not more than 60 minutes duration; and
- Consultations that last for more than 60 minutes duration.

The scenarios developed to model the potential impact of these items upon the MBS involved estimating the proportion of claims within each of the four tiers, as follows:

- For time-tiered items relating to assessment (allowing for two occasions to conduct such assessments) it was assumed that:
  - For hospital or surgery related assessments:
    - 50% of assessments would last between 40-60 minutes; and
    - 50% assessments would last more than 60 minutes.
  - For non-hospital or surgery related assessments:
    - 15% of assessments would last between 40-60 minutes; and
    - 85% assessments would last more than 60 minutes.
- For time-tiered items relating to subsequent consultations (following assessments) it was assumed that for both hospital/surgery and non-hospital/surgery consultations:
  - 67% of all subsequent consultations would last between 20-40 minutes; and
  - 33% of all subsequent consultations would last between 40-60 minutes.

Estimations derived from these scenarios are separately presented in Chapter 7.

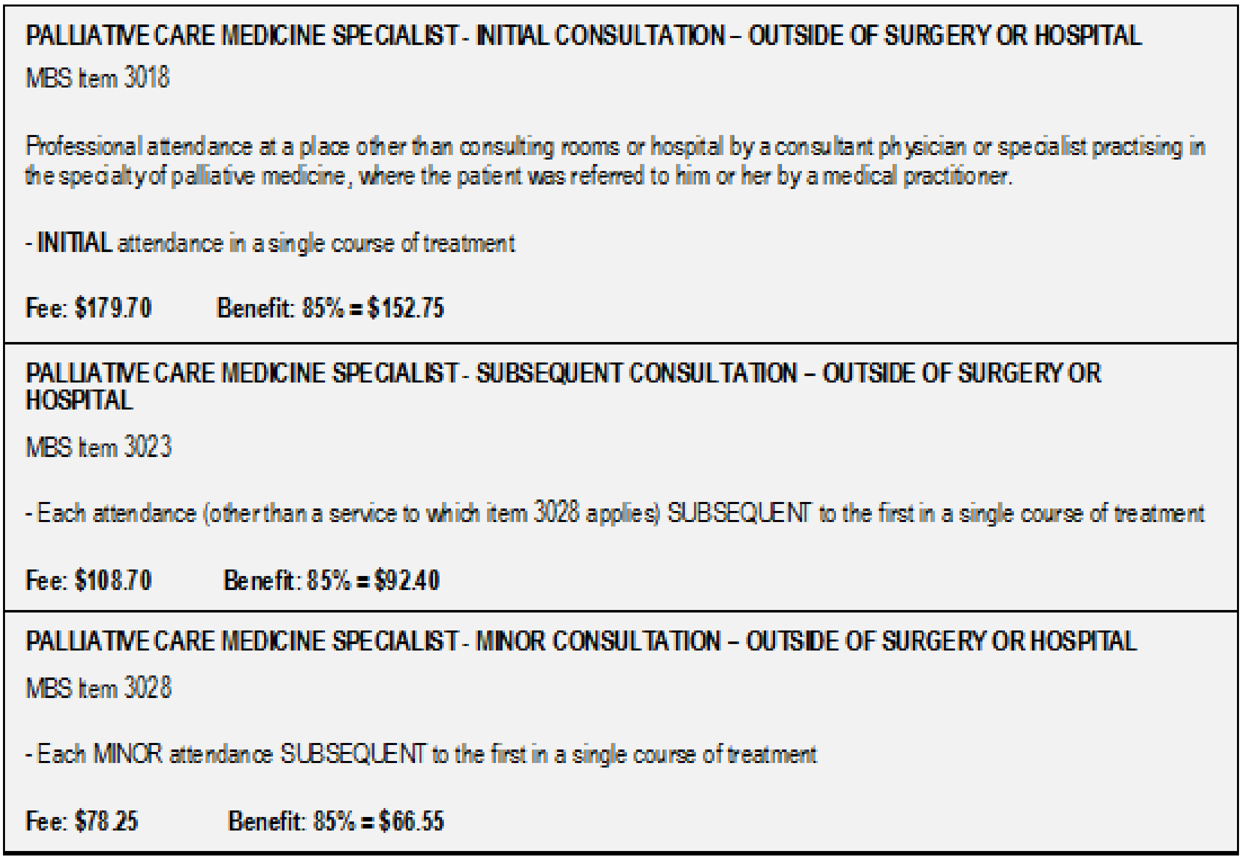
6.4 Proposed modifications to existing item numbers

As previously reported, there are currently three items listed for palliative medicine specialists relating to home visits, including:

- Item 3018 - Medical Practitioner (Palliative Medicine Specialist) Attendance – Home Visit;
- Item 3023 – Attendance Subsequent to the first in a single course of treatment, unless the following item has been claimed:
- Item 3028 – Minor Attendance Subsequent to the first in a single course of treatment.

There is currently a small volume of current MBS activity in these items. This in part has been attributed to confusion on the part of specialists about the applicability of these item numbers for other community consultations that are not specific home visits. It is important to note that the item descriptors themselves would appear to make quite clear that these items can be used "at a place other than consulting rooms or hospital", and thus, a change in the title of the item numbers is the only changed proposed for consideration (Figure 6-7).

Figure 6-7: Proposed descriptors for residential care/home visits items



PALLIATIVE CARE MEDICINE SPECIALIST - INITIAL CONSULTATION – OUTSIDE OF SURGERY OR HOSPITAL

MBS Item 3018

Professional attendance at a place other than consulting rooms or hospital by a consultant physician or specialist practising in the specialty of palliative medicine, where the patient was referred to him or her by a medical practitioner.

- **INITIAL** attendance in a single course of treatment

Fee: $179.70 **Benefit: 85% = $152.75**

PALLIATIVE CARE MEDICINE SPECIALIST - SUBSEQUENT CONSULTATION – OUTSIDE OF SURGERY OR HOSPITAL

MBS Item 3023

- Each attendance (other than a service to which item 3028 applies) SUBSEQUENT to the first in a single course of treatment

Fee: $108.70 **Benefit: 85% = $92.40**

PALLIATIVE CARE MEDICINE SPECIALIST - MINOR CONSULTATION – OUTSIDE OF SURGERY OR HOSPITAL

MBS Item 3028

- Each MINOR attendance SUBSEQUENT to the first in a single course of treatment

Fee: $78.25 **Benefit: 85% = $66.55**

Assuming that broader changes to professional attendance items may be considered by MSAC, any anticipated increase in the use of these items has already been factored into modelled scenarios presented in the following chapter of this report. Given the low volume of activity currently occurring across these items, data modelling of any isolated changes in utilisation without broader changes to professional attendance items for palliative care specialists was considered to be unreliable and was thus not performed.

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7 Impact of changes to remuneration arrangements

7.1 Modelling objectives

The purpose of the financial modelling undertaken is to quantify the implications for the private sector of the proposed new MBS item structures for palliative medicine.

7.2 Private sector

7.2.1 SCENARIO MODELLING

Two alternatives have been modelled to assess the impact of revised MBS item structures. A detailed explanation of each alternative is provided at Chapter 6. The following sections provide a summary of the main outcomes for each alternative.

7.2.2 SCENARIO 1 – PHYSICIAN EQUIVALENT

This alternative assumes that there will be an 80:20 split between hospital/surgery and home/community visits. The current total number of services is held constant in the modelling however there is a significant change in the mix between assessments and treatments and the rates at which services are billed. In both service environments, it is assumed that the number of assessment type services will double from the current volumes and the treatment type services will be reduced commensurately. Under this proposal, assessment type services increase from 15,939 services in 2012/13 to a new total of 31,877 services.

For hospital/surgery assessment visits, three potential combinations have been modelled:

- First assessment at item 132 rates and second assessment at item 3005 rates;
- Both assessments at item 3005 rates; and
- First assessment at item 3005 rates and second assessment at item 132 rates.

It has also been assumed that there will be an overall 50:50 split in the use of items 132 and 3005 for hospital/surgery assessments under the three combinations described above. All subsequent treatments are at item 3010 rates.

Home/community assessments are estimated at 20% of total assessment volumes and for these assessments it is expected that there will be a much higher incidence of complex assessments. For these assessments, 85% are assumed to attract item 132 rates and 15% attract item 3018 rates. All subsequent treatments are at item 3023 rates.

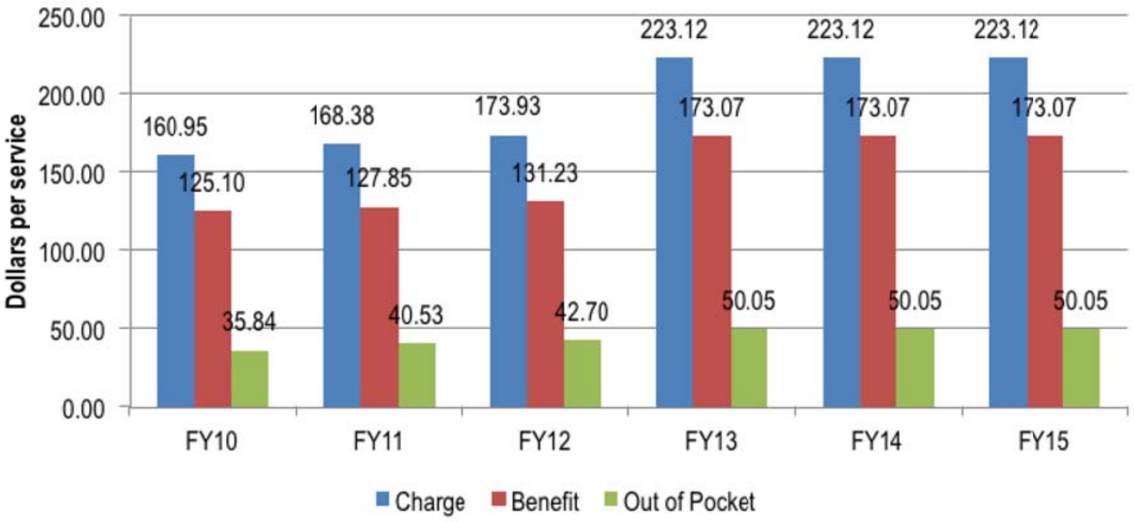
A comparison for 2012/13 between the current and proposed billing patterns and MBS items is shown in Table 7-1.

Table 7-1: Physician equivalent compared to current volumes – 2012/13

Item	Current 2012/13	Physician Equivalent 2012/13	Average Benefit 2012/13
Assessment			$
3005	8,770	12,751	116.61
110	2,903		117.58
132	2,649	18,170	213.69
3018	1,617	956	154.01
New (Mid 132/3005)			165.15
Total Assessment	15,939	31,877	
Treatment			
3010	41,782	35,398	57.41
116	14,053		57.57
3023	2,259	8,849	93.63
133	2,091		105.93
New (mid 133/3010)			81.67
Total Treatment	60,186	44,247	
Grand Total	**76,124**	**76,124**	

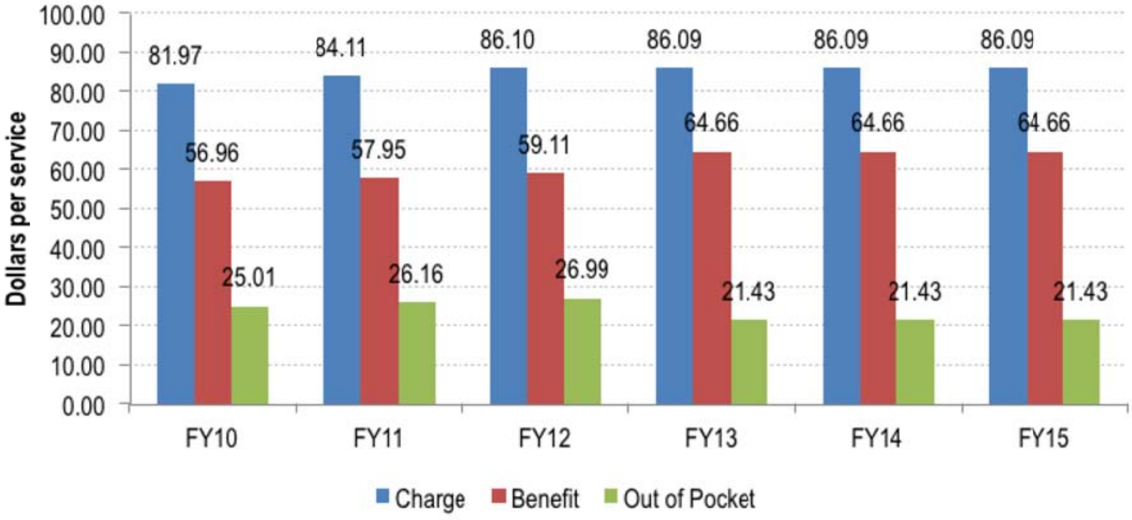
Figure 7-1and Figure 7-2 show a comparison of this alternative with the current rates for charges, benefits and out-of-pocket amounts for assessment and treatment services respectively. There is no change in the overall volume of services delivered.

Figure 7-1: Assessment services –average $ per service by financial year



In 2013, the average benefit paid for assessment services was $136.72 and this rises to $173.07 under this alternative, which represents an increase of 26.6%. The out-of-pocket average amount increases by 21.5% from $41.19 to $50.05.

Figure 7-2: Treatment services – average $ per service by financial year



For treatment services, the average benefit paid under this alternative rises by 6.9% from $60.50 in 2013 to $64.66. The out-of-pocket amount actually decreases by 11.3% from $27.22 to $21.43 due to a much higher volume of item 3023, which currently attracts only a minor out-of-pocket of $0.76/service and lower volumes of item 3010, which has an out-of-pocket of $26.60.

Total benefits paid in 2013 under this alternative are estimated at $8.378M, which compares with the estimate for the current scenario of $5.820, an increase of $2.558M or 43.9% (before indexation).

Table 7-2 shows a summary by item number of how billing patterns would look under the physician equivalent alternative.

Table 7-2: Physician equivalent rates – 2009/10 to 2014/15

Palliative Care Physician Equivalent	No of Services						Benefit					
	FY10	FY11	FY12	FY13	FY14	FY15	FY10	FY11	FY12	FY13	FY14	FY15
Hospital or Surgery												
Initial Complex Ax @ 132	8,100	9,638	11,206	12,751	14,143	15,535	1,652,572	1,976,667	2,330,859	2,724,763	3,022,227	3,319,691
Initial Standard Ax @ 3005	8,100	9,638	11,206	12,751	14,143	15,535	892,260	1,082,434	1,285,519	1,486,917	1,649,245	1,811,573
Subsequent @ 3010	26,606	28,589	31,590	35,398	38,050	40,702	1,444,253	1,577,698	1,780,855	2,032,346	2,184,624	2,336,901
Total Hospital/Surgery	42,806	47,866	54,002	60,899	66,336	71,772	3,989,084	4,636,799	5,397,234	6,244,027	6,856,096	7,468,165
Home or Community												
Initial Complex Ax @ 132	3,443	4,096	4,763	5,419	6,011	6,602	702,343	840,084	990,615	1,158,024	1,284,447	1,410,869
Initial Standard Ax @ 3005	608	723	840	956	1,061	1,165	89,151	108,054	127,794	147,283	163,362	179,441
Subsequent @ 3023	6,652	7,147	7,897	8,849	9,512	10,176	602,997	665,176	735,312	828,568	890,650	952,732
Total Home/Community	10,702	11,966	13,501	15,225	16,584	17,943	1,394,490	1,613,313	1,853,721	2,133,875	2,338,458	2,543,041
Grand Total	53,508	59,832	67,503	76,124	82,920	89,715	5,383,575	6,250,113	7,250,955	8,377,902	9,194,554	10,011,206

7.2.3 SCENARIO 2 – TIME-TIERED

This scenario is based on time-tiered service bands and assumes the same total volume of services as per the current position and scenario 1 – physician equivalent. This scenario also assumes the same volume of assessment and treatments services as for the physician equivalent scenario. However there is a different mix of item numbers being applied. The following table shows how assessment and treatments items are distributed across the proposed time-tiers.

Table 7-3: Time-tiered distribution by time-tier

Time tiers	Complex Ax		Std Ax		Subsequent	
	Hospital	Home	Hospital	Home	Hospital	Home
0-20 mins	0%	0%	0%	0%		
20-40 mins	0%	0%	100%	100%	67%	67%
40-60 mins	50%	15%	0%	0%	33%	33%
60+ mins	50%	85%	0%	0%		
	100%	100%	100%	100%	100%	100%

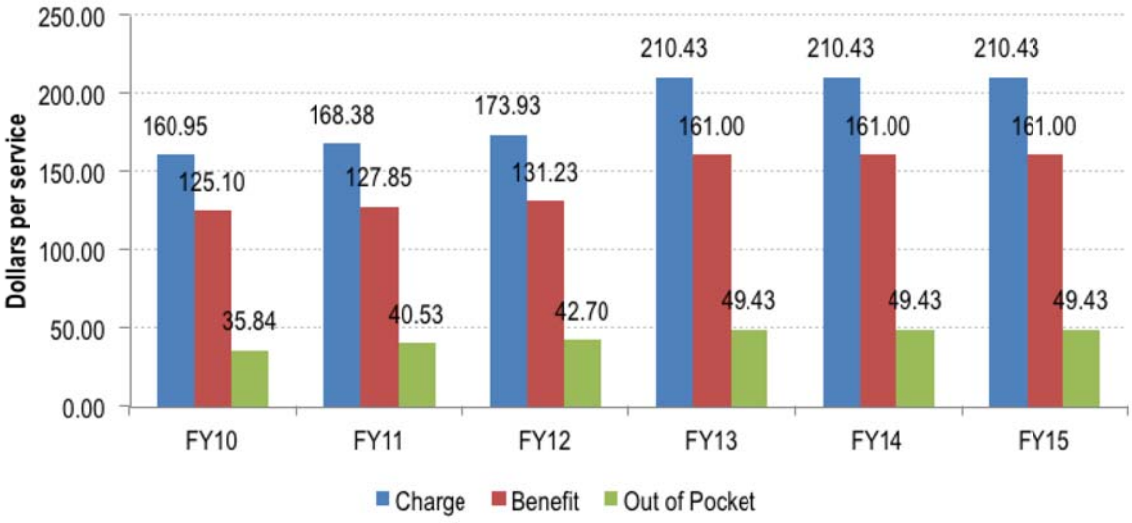
A comparison of the volumes in 2012/13 under the current and two scenarios is shown in Table 7-4.

Table 7-4: Comparison by item

Item	Current 2012/13	Physician Equivalent 2012/13	Time tier 2012/13	Average Benefit 2012/13
Assessment				$
3005	8,770	12,751	13,707	116.61
110	2,903			117.58
132	2,649	18,170	10,982	213.69
3018	1,617	956		154.01
New (Mid 132/3005)			7,188	165.15
Total Assessment	15,939	31,877	31,877	
Treatment				
3010	41,782	35,398	29,646	57.41
116	14,053			57.57
3023	2,259	8,849		93.63
133	2,091			105.93
New (mid 133/3010)			14,602	81.67
Total Treatment	60,186	44,247	44,247	
Grand Total	76,124	76,124	76,124	

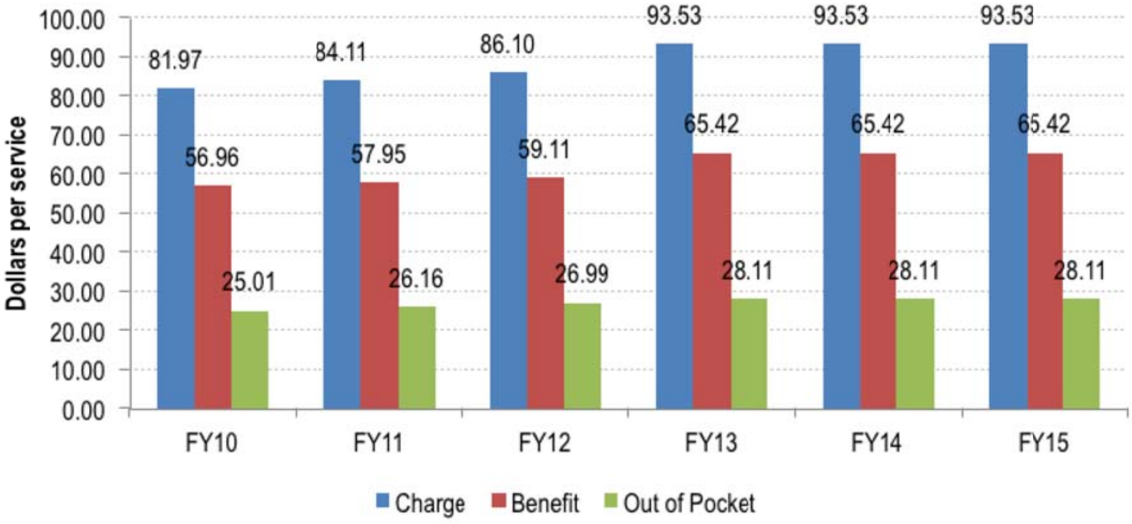
Figure 7-3 and Figure 7-4 show a comparison of this scenario with the current rates for charges, benefits and out-of-pocket amounts for assessment and treatment services respectively. There is no change in the overall volume of services delivered.

Figure 7-3: Assessment services – average $ per service by financial year



In 2013, the average benefit paid for assessment services was $136.72 and this rises to $161.00 under this scenario, which represents an increase of 17.8%. The out-of-pocket average amount increases by 20.0% from $41.19 to $49.43.

Figure 7-4: Treatment services – average $ per service by financial year



For treatment services, the average benefit paid under this scenario rises by 8.1% from $60.50 in 2013 to 65.42. The out-of-pocket amount increases only marginally by 3.3% from 27.22 to $28.11.

Total benefits paid in 2013 under this scenario are estimated at $8.027M, which compares with the estimate for the current scenario of $5.820M, an increase of $2.207M or 37.9% (before indexation).

Table 7-5 shows a summary by item number of how billing patterns would look under the time-tier scenario.

Table 7-5: Time-tiered rates – 2009/10 to 2014/15

Palliative Care Time Tier	No of Services						Benefit					
	FY10	FY11	FY12	FY13	FY14	FY15	FY10	FY11	FY12	FY13	FY14	FY15
Hospital or Surgery												
Initial Complex Ax												
0-20 mins @ 104	0	0	0	0	0	0	0	0	0	0	0	0
20-40 mins @ 3005	0	0	0	0	0	0	0	0	0	0	0	0
40-60 mins @ new (mid 3005/132)	4,050	4,819	5,603	6,375	7,071	7,767	636,208	764,775	904,095	1,052,920	1,167,868	1,282,816
60+ mins @ 132	4,050	4,819	5,603	6,375	7,071	7,767	826,286	988,334	1,165,430	1,362,382	1,511,114	1,659,846
Initial Standard Ax												
0-20 mins @ 104	0	0	0	0	0	0	0	0	0	0	0	0
20-40 mins @ 3005	8,100	9,638	11,206	12,751	14,143	15,535	892,260	1,082,434	1,285,519	1,486,917	1,649,245	1,811,573
40-60 mins @ new (mid 3005/132)	0	0	0	0	0	0	0	0	0	0	0	0
60+ mins @ 132	0	0	0	0	0	0	0	0	0	0	0	0
Subsequent												
0-20 mins @ 105	0	0	0	0	0	0	0	0	0	0	0	0
20-40 mins @ 3010	17,826	19,155	21,165	23,716	25,493	27,270	967,649	1,057,058	1,193,173	1,361,672	1,463,698	1,565,724
40-60 mins @ new (mid 3010/133)	8,780	9,434	10,425	11,681	12,556	13,432	695,904	746,217	832,552	954,049	1,025,533	1,097,017
60+ mins @ 133	0	0	0	0	0	0	0	0	0	0	0	0
Total - Hospital/Surgery	42,806	47,866	54,002	60,899	66,336	71,772	4,018,307	4,638,817	5,380,768	6,217,940	6,817,458	7,416,975
Home or Community												
Initial Complex Ax												
0-20 mins @ 104	0	0	0	0	0	0	0	0	0	0	0	0
20-40 mins @ 3005	0	0	0	0	0	0	0	0	0	0	0	0
40-60 mins @ new (mid 3005/132)	516	614	714	813	902	990	81,117	97,509	115,272	134,247	148,903	163,559
60+ mins @ 132	2,926	3,482	4,048	4,606	5,109	5,612	596,992	714,071	842,023	984,321	1,091,780	1,199,238
Initial Standard Ax												
0-20 mins @ 104	0	0	0	0	0	0	0	0	0	0	0	0
20-40 mins @ 3005	608	723	840	956	1,061	1,165	66,919	81,183	96,414	111,519	123,693	135,868
40-60 mins @ new (mid 3005/132)	0	0	0	0	0	0	0	0	0	0	0	0
60+ mins @ 132	0	0	0	0	0	0	0	0	0	0	0	0
Subsequent												
0-20 mins @ 105	0	0	0	0	0	0	0	0	0	0	0	0
20-40 mins @ 3010	4,457	4,789	5,291	5,929	6,373	6,818	241,912	264,264	298,293	340,418	365,924	391,431
40-60 mins @ new (mid 3010/133)	2,195	2,359	2,606	2,920	3,139	3,358	173,976	186,554	208,138	238,512	256,383	274,254
60+ mins @ 133	0	0	0	0	0	0	0	0	0	0	0	0
Total - Home/Community	10,702	11,966	13,501	15,225	16,584	17,943	1,160,916	1,343,581	1,560,140	1,809,017	1,986,684	2,164,351
Grand Total	53,508	59,832	67,503	76,124	82,920	89,715	5,179,222	5,982,398	6,940,909	8,026,958	8,804,142	9,581,326

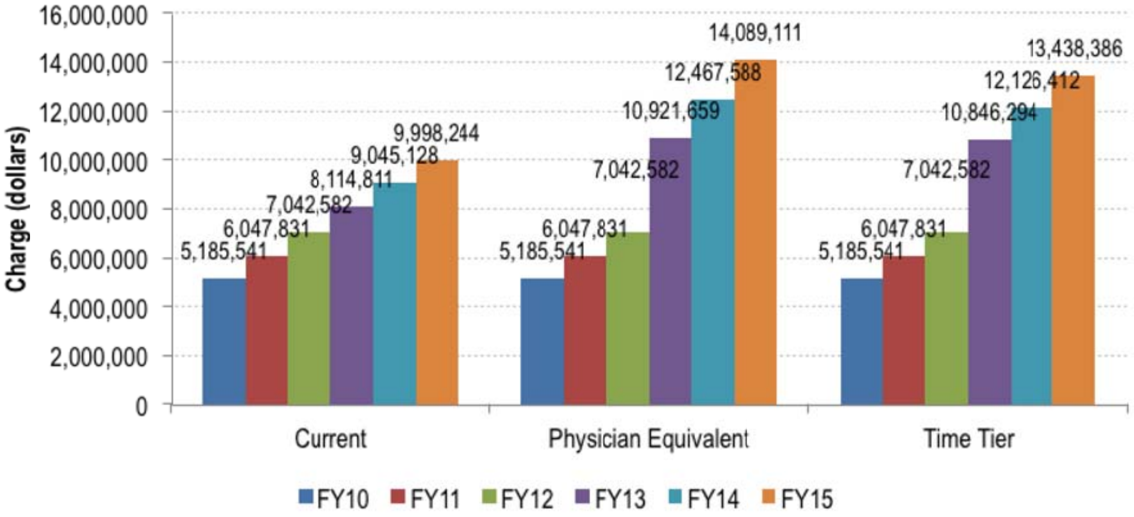
7.2.4 FINANCIAL PROJECTIONS

The financial projections shown below have been updated to include indexation, which has been based on the linear trend increases for a group of relevant MBS items:

- 2014 – by 2.00%. (It is acknowledged that indexation has been deferred from November 2013 to 1 July 2014. However an appropriate increase has been included).
- 2015 – by a further 1.89%

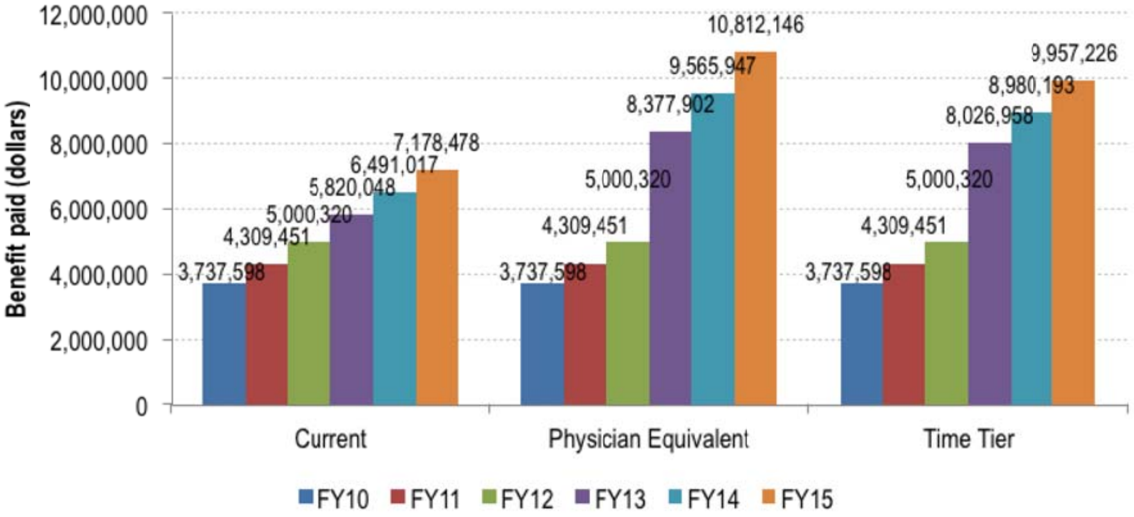
In 2012/13, charges by specialists under existing conditions are estimated at $8.115M ($106.60/service) rising to $9.998M ($111.44/service) by 2014/15. Under scenario 1, physician equivalent rates, charges in 2012/13 are estimated at $10.922M ($143.47/service) an increase of 34.6% or $2.807M and rise to $14.089M by 2014/15. Time-tier charges are similar to physician equivalent charges and are estimated at $10.846M in 2012/13 ($142.48) rising to $13.438M by 2014/15 ($149.79). Details are shown in Figure 7-5.

Figure 7-5: Summary of options – specialist charges by financial year



Benefits paid under the current and proposed scenarios are shown in Figure 7-6.

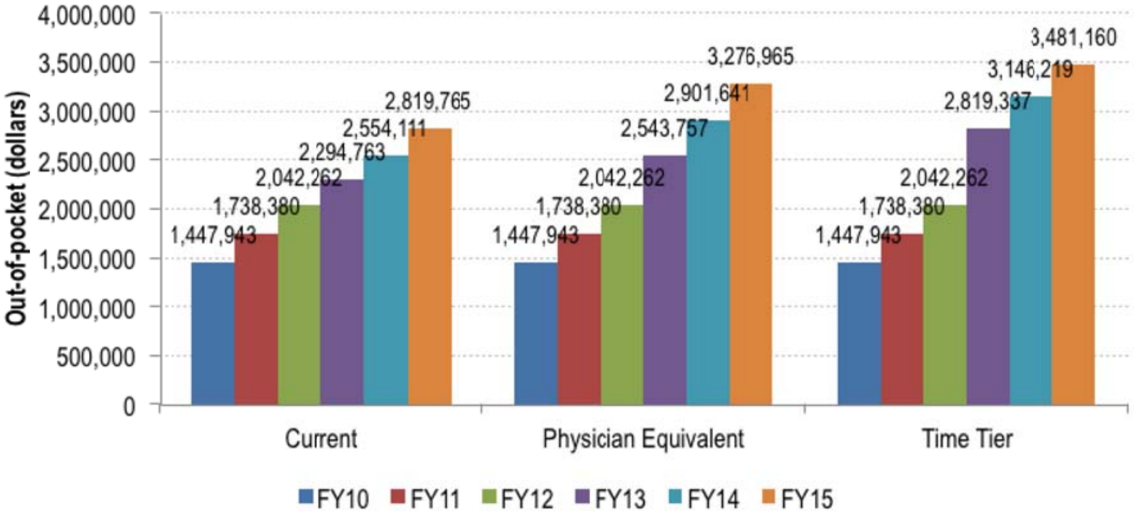
Figure 7-6: Summary of options – benefits paid by financial year



In 2012/13, benefits paid under the current scenario are estimated at $5.820M ($76.45/service) rising to $7.178M ($80.01/service) by 2014/15. Under scenario 1, physician equivalent, benefits paid in 2012/13 are estimated at $8.378M ($110.06/service) an increase of $2.558M or 43.9% over current conditions. The increase above current conditions projected to 2014/15 is $3.634M or 50.6% with total benefits estimated at $10.812M ($120.52/service). Time-tier benefits are estimated at $8.027M in 2012/13 ($105.45) which is lower than the physician equivalent benefit by $0.351M and rises to $9.957M by 2014/15 ($110.99/service).

Out-of-pocket outlays are shown in Figure 7-7. Under current conditions, out-of-pocket expenses are $2.295M in 2012/13 ($30.14/service) rising to $2.820M in 2014/15 ($31.43/service)

Figure 7-7: Summary of options – out-of-pockets by financial year



Under scenario 1, physician equivalent, out-of-pocket expenses are estimated at $2.544M ($33.42/service) in 2012/13, an increase of $0.249M or 10.9% above current conditions. In 2014/15 the out-of-pockets under scenario 1 are projected to rise to $3.277M, which is 16.2% or $0.457M above the current conditions projected to 2014/15. The time-tier out-of pockets are higher than scenario 1 and are estimated at $2.819M ($37.04) in 2012/13 rising to $3.481M in 2014/15 ($38.80/service).

7.3 Public sector

Current costs of public sector services could not be reliably estimated. More than half of the current palliative medicine specialists work in the public sector. However, the costs associated with individual patient treatments cannot be separated from the costs of other clinicians assessing and treating patients.

The multi-disciplinary models of care that universally operate in the public sector are often very different in the level of involvement of the palliative medicine specialist in the care of patients.

7.4 Revised estimates of cost associated with potentially preventable admissions

Given the differences in MBS item rebates under the proposed scenarios, notional cost savings associated with potentially preventable hospital admissions (via maintenance of patient treatment in the community) were re-estimated. Under a physician equivalent scenario (Table 7-6), an additional outlay of up to $5.0M in specialist consultation fees would notionally save the health system an estimated $21M if an additional 20% of the palliative care population could be identified and treated in the community (avoiding a potentially preventable hospital admission).

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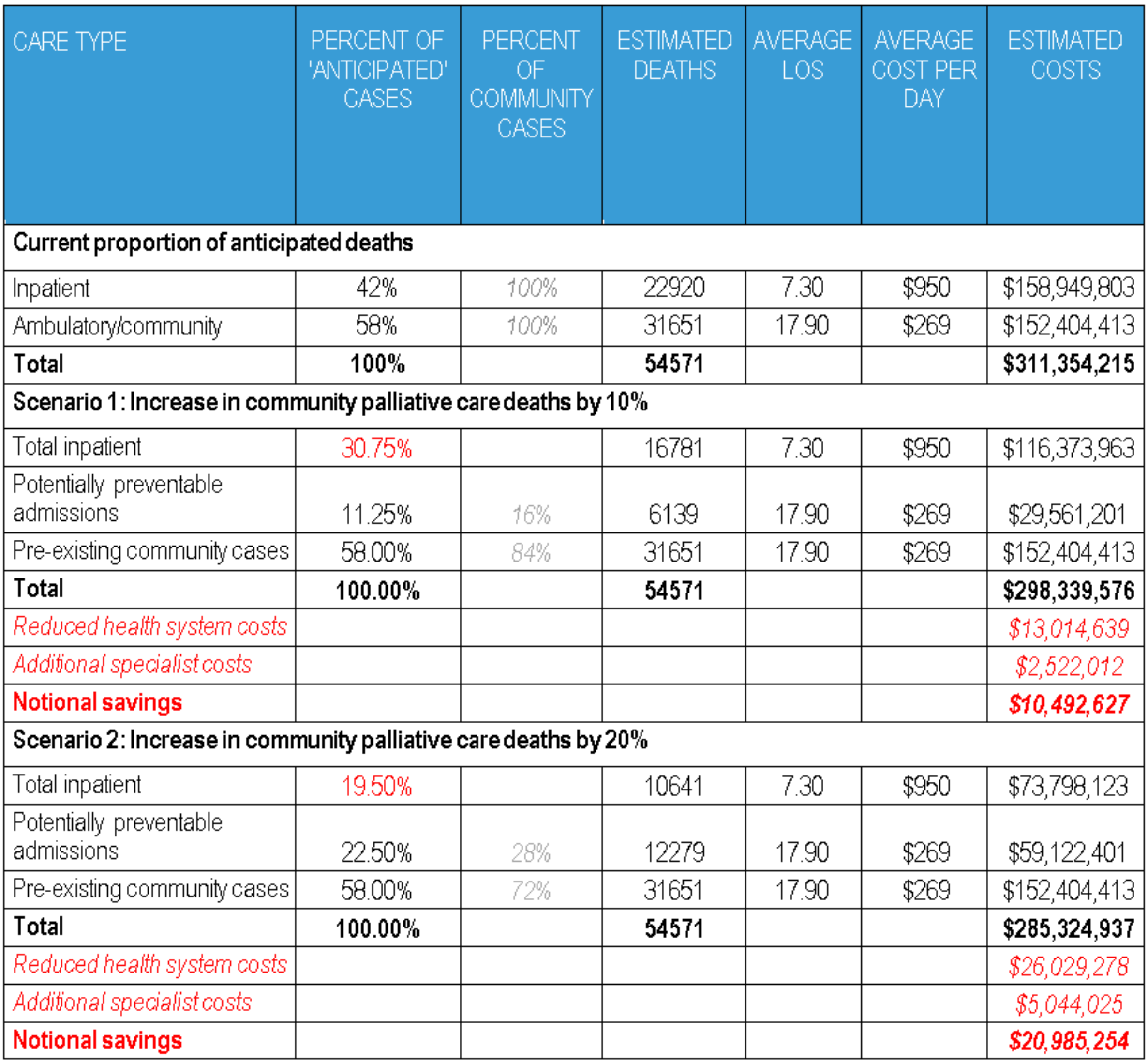
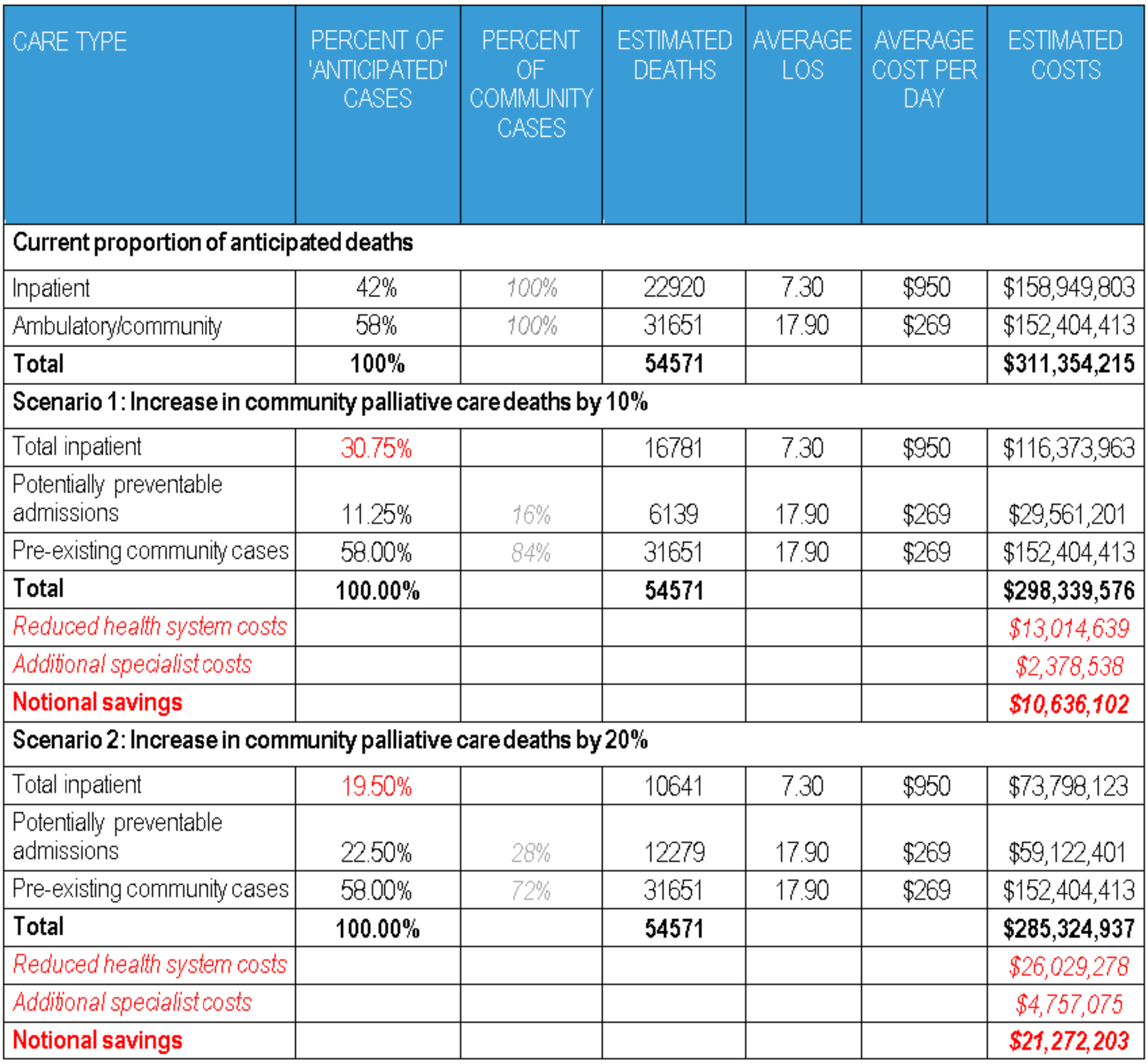
Table 7-6: Notional cost savings under a physician equivalent MBS scenario



CARE TYPE	PERCENT OF 'ANTICIPATED' CASES	PERCENT OF COMMUNITY CASES	ESTIMATED DEATHS	AVERAGE LOS	AVERAGE COST PER DAY	ESTIMATED COSTS
Current proportion of anticipated deaths						
Inpatient	42%	*100%*	22920	7.30	$950	$158,949,803
Ambulatory/community	58%	*100%*	31651	17.90	$269	$152,404,413
Total	**100%**		**54571**			**$311,354,215**
Scenario 1: Increase in community palliative care deaths by 10%						
Total inpatient	30.75%		16781	7.30	$950	$116,373,963
Potentially preventable admissions	11.25%	*16%*	6139	17.90	$269	$29,561,201
Pre-existing community cases	58.00%	*84%*	31651	17.90	$269	$152,404,413
Total	**100.00%**		**54571**			**$298,339,576**
Reduced health system costs						*$13,014,639*
Additional specialist costs						*$2,522,012*
Notional savings						***$10,492,627***
Scenario 2: Increase in community palliative care deaths by 20%						
Total inpatient	19.50%		10641	7.30	$950	$73,798,123
Potentially preventable admissions	22.50%	*28%*	12279	17.90	$269	$59,122,401
Pre-existing community cases	58.00%	*72%*	31651	17.90	$269	$152,404,413
Total	**100.00%**		**54571**			**$285,324,937**
Reduced health system costs						*$26,029,278*
Additional specialist costs						*$5,044,025*
Notional savings						***$20,985,254***

Under a time-tiered scenario (Table 7-7) an additional outlay of up to $4.7M in specialist consultation fees would also notionally save the health system an estimated $21M if an additional 20% of the palliative care population could be identified and treated in the community (avoiding a potentially preventable hospital admission).

Table 7-7: Notional cost savings under a time-tiered MBS scenario



CARE TYPE	PERCENT OF 'ANTICIPATED' CASES	PERCENT OF COMMUNITY CASES	ESTIMATED DEATHS	AVERAGE LOS	AVERAGE COST PER DAY	ESTIMATED COSTS
Current proportion of anticipated deaths						
Inpatient	42%	*100%*	22920	7.30	$950	$158,949,803
Ambulatory/community	58%	*100%*	31651	17.90	$269	$152,404,413
Total	**100%**		**54571**			**$311,354,215**
Scenario 1: Increase in community palliative care deaths by 10%						
Total inpatient	30.75%		16781	7.30	$950	$116,373,963
Potentially preventable admissions	11.25%	*16%*	6139	17.90	$269	$29,561,201
Pre-existing community cases	58.00%	*84%*	31651	17.90	$269	$152,404,413
Total	**100.00%**		**54571**			**$298,339,576**
Reduced health system costs						*$13,014,639*
Additional specialist costs						*$2,378,538*
Notional savings						***$10,636,102***
Scenario 2: Increase in community palliative care deaths by 20%						
Total inpatient	19.50%		10641	7.30	$950	$73,798,123
Potentially preventable admissions	22.50%	*28%*	12279	17.90	$269	$59,122,401
Pre-existing community cases	58.00%	*72%*	31651	17.90	$269	$152,404,413
Total	**100.00%**		**54571**			**$285,324,937**
Reduced health system costs						*$26,029,278*
Additional specialist costs						*$4,757,075*
Notional savings						***$21,272,203***

7.5 Impact upon supply of specialists

Anecdotal reports from representatives of the Chapter of Palliative Medicine indicate that the availability of MBS items for palliative medicine would have a positive impact upon the supply of specialists. There are several self-reinforcing reasons for this advice, including but not limited to:

- Current benefit levels are unable to support a viable private practice. Hence, the fee structure is actively working against attracting specialists into private practice, and retaining specialists in private hospital practices that rely upon fee-for-service arrangements; and
- The current remuneration levels for palliative medicine is a disincentive in attracting candidates compared with other specialty areas. Whilst more recent data indicates an increase in the number of new fellows, it remains to be seen if this will have a long-lasting effect on the number of applications for accredited palliative medicine registrar positions.

7.6 Impact upon access to services

It is estimated that there would be an increase in the supply of palliative medicine specialists over time as a direct result of a new – more appropriately remunerated – MBS item structure.

The rate of increase in qualified specialists is a function of the number of accredited trainee positions and the interest in specialisation in palliative medicine. It is anticipated that there will not be a major or sudden turnaround in the current potential paucity of interest, and that the 'take up' rates will be gradual.

As there will be strong jurisdictional interest in developing palliative medicine specialists, there is likely to be concerted efforts, particularly in the take up of training positions in all jurisdictions with the exception of Tasmania and New South Wales where the current workforce is available at a rate considered appropriate to population need. A new regime of MBS items is reported to give impetus to developing flexible public-private training models.

7.7 Impact upon patient outcomes

The AMC, and the medical profession more broadly, recognise that palliative medicine is a complex area, requiring a dedicated specialty able to deliver a range of high quality interventions to patients. Patient outcomes can therefore expect to improve through:

1. Advice and support to GPs;
2. Improving integration and coordination of care through the 'collaborative or shared care' service models;
3. Direct management of more complex cases – as is the case with any specialty are.
4. Enabling equivalent reimbursement for practice that is currently available within the public sector – currently a significant limitation to specialists who are not already fellows of other medical colleges. Given the efficacy of these interventions and the accredited training to provide a wide range of services, it is assumed that patient outcomes will therefore be no worse than those achieved in the public sector and in all likelihood superior to other medical specialists who have not demonstrated the same clinical competencies to address the range of end-of-life issues that palliative medicine specialists are competent in and capable of delivering.
5. Workforce development that may also increase the availability of input by palliative medicine specialists into public policy and program development to increase awareness of appropriate end of life management. This would ideally result in a higher proportion of individuals requesting referral for palliative specialist intervention. This is a particular area that has thus far remained largely unaddressed by palliative medicine specialists
6. Improving access to timely care by:
    a. Reducing preventable admissions for inpatient care by enabling the majority of individuals to die as they choose – in the community; and
    b. Reducing out-of-pocket costs (on average) to the patient.

Notwithstanding the proposition that patient outcomes are expected and have been reported to improve (with respect to dying with dignity and a maximised quality of life), there is no basis for quantifying the level of expected patient outcome improvement by any of the standard quantification methods – at individual patient level or system level - through the provision of medical consultation services (at the current point in time). In future, it is conceivable that appropriate outcome measures (e.g. quality adjusted life years/months/days) could be developed for individuals transitioning through different stages of terminal illness to address this goal.

7.8 Impact upon private sector providers

There is no anticipated change in the requirements for referral to palliative medicine specialist as is the case with all other specialties, for advice and management of more complex co-morbidities. Therefore, there is no expected change to the current patient presentation arrangements for GPs or private practice specialist providers.

Based on the expected unmet demand in the community, there is unlikely to be any adverse impact on the demand for GP or other specialist services.

Rather, the potential exists for additional ‘case finding’ and referral by GPs, who currently see a smaller number of palliative care-type patients each year (compared with specialists), spend less time (on average) with their palliative patients, and could be supported to refer patients under a shared care arrangement with a palliative care team, thus allowing around 87.5% of patients to remain in the community throughout their illness trajectory.

7.9 Impact upon public sector services

There is expected to be increased demand for public sector palliative care services in future years, but this remains relatively independent of any decision relating to the introduction of any new MBS items. The availability of multidisciplinary care, as a cornerstone of palliative medicine, will remain more readily available in the public hospital sector. Whilst some increase in palliative care assessments may occur in private hospitals, the extent to which subsequent MBS claims are made to monitor the impact of the range of multidisciplinary interventions organised to address patient needs is likely to be low (given the availability and fee-for-service costs of these services in the private hospital sector).

Where the introduction of new MBS items is likely to impact upon public service provision will be in the community sector. The introduction of MBS items that more accurately reflect the palliative model of care is likely to increase the involvement of medical specialists in the delivery of community services. Given the research indicating the benefits of maintaining palliative care patients in the community (in terms of personal preference and system costs), compared with the alternative of a relatively more expensive hospital admission – any increase in community based MBS billing would appear to be a worthwhile investment.

7.10 Impact upon overall health expenditure (relative cost effectiveness)

Cost effectiveness analysis is used as a means to determine the relative cost of undertaking a course of action compared with the most appropriate existing course of action. In the context of palliative medicine cost effectiveness analysis is between two independent[131] treatment contexts, i.e. between interventions provided in an admitted hospital or community environment.

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[131] This means that the actions are independent but not mutually exclusive.

Analysis between independent contexts would ordinarily suggest comparative analysis between the cost of interventions compared with the health gain of the intervention (usually expressed as a ratio). This is where conventional cost effectiveness analysis becomes problematic. Whilst it is possible to estimate the cost difference between consultations delivered by a palliative medicine specialist *(as part of a multidisciplinary team)* in a hospital versus a community context, it is not possible to identify the relative or absolute health gain resulting from one or a series of medical consultations in either context.

There has been acceptance within the medical profession that there are superior clinical benefits from palliative medicine interventions for palliative care related disorders relative to interventions provided by (willing) GPs or other specialty groups. On this basis, a cost effectiveness analysis should only need to demonstrate costs at or below the alternative contextual environments to demonstrate overall superior cost effectiveness.

Therefore, an economic evaluation of the palliative medicine MBS items has been based on a *relative cost of medical consultations in hospitals versus the community.* A modelled comparative analysis of *current* costs as at 2012-13 by palliative medicine (and other unknown) specialists working in the community rather than a hospital environment has been developed. The forecast costs for palliative medicine are based on the proposed fee structure where assessment and patient review are at physician rates.

Modelled comparative analysis

The current (2012/13) MBS outlays for palliative medicine are estimated to be ~$5.82M. However, due to service number increases and indexation, it is estimated that this would rise to $7.18M by 2014/15.

The forecast (2014/15) MBS outlays for Palliative medicine, is ~$10.81M noting that there are rate increase to consultant physician levels, changes to reflect the proportion of patients who require complex assessment and treatment planning, and an increased allowance for two assessment episodes in line with the recognised phases of palliative care service delivery. This suggests that there would be an *increase* in MBS outlays of ~$3.63M based on the difference between actual 2012/13 and forecast 2014/15 outlays under a new item structure.

The forecast MBS outlays using community treatment to divert potentially preventable hospital admissions is an additional outlay of up to ~$5.0M, to achieve potential notional savings to the health system of ~$21.0M. This suggests that even with an increase in payment rates for palliative medicine specialists, a significant cost advantage may be realised if an increase in the number of community palliative specialist consultations can be achieved.

The assumed mix of consultations between palliative medicine services delivered in a hospital or community environment are currently different; namely:

- In-hospital assessment comprises around 17% of consultations (compared with 83% of consultations involving patient review); and
- In the community assessment comprises around 42% of consultations (compared with 58% of consultations involving patient review.

Under any revised MBS item scenario it is estimated that the proportion of assessments would double (due to the availability of two patient assessment items), with a corresponding reduction in the relative percentage of patient reviews. It must be noted however, that the overall number of community consultations may increase – but this cannot be readily determined from the available data.

Another important aspect of the cost effectiveness analysis is the forecast for out-of-pocket costs for patients. The analysis assumes the same out-of pocket cost differential between current palliative medicine arrangements and those associated with a change in MBS item structure.

The estimated out-of-pocket costs to patients (2013), suggests ~$2.02M for Palliative medicine services charged under physician equivalent items, compared to out-of-pocket costs of $2.2M for time-tiered MBS items. The majority of these costs occur in the hospital sector (~$0.032M) under any new MBS arrangement with only a minor increase of ~$0.032M (physician items) to ~$0.060M (time-tiered), for palliative medicine services delivered in a community environment.

Appendix 1 Modelling of alternate cost scenarios

Financial year 2012-13

Current estimates of potential referral

Number of deaths	49459
Proportion of 'anticipated' deaths	59.37%
Number of 'anticipated' deaths	88734
Proportion of specialist referrals	61.50% (currently referred for palliative medicine specialist assessment in hospital or community)
Number of 'anticipated' deaths referred	54571

CARE TYPE	PERCENT OF 'ANTICIPATED' CASES	PERCENT OF COMMUNITY CASES	ESTIMATED DEATHS	AVERAGE LOS	AVERAGE COST PER DAY	ESTIMATED COSTS
Current proportion of anticipated deaths						
Inpatient	42%	*100%*	22920	7.30	$950	$158,949,803
Ambulatory/community	58%	*100%*	31651	17.90	$269	$152,404,413
Total	**100%**		**54571**			**$311,354,215**
Scenario 1: Increase in community palliative care deaths by 10%						
Total inpatient	30.75%		16781	7.30	$950	$116,373,963
Potentially preventable admissions	11.25%	*16%*	6139	17.90	$269	$29,561,201
Pre-existing community cases	58.00%	*84%*	31651	17.90	$269	$152,404,413
Total	**100.00%**		**54571**			**$298,339,576**
Reduced health system costs						*$13,014,639*
Additional specialist costs						*$1,582,151*
Notional savings						***$11,432,488***
Scenario 2: Increase in community palliative care deaths by 20%						
Total inpatient	19.50%		10641	7.30	$950	$73,798,123
Potentially preventable admissions	22.50%	*28%*	12279	17.90	$269	$59,122,401
Pre-existing community cases	58.00%	*72%*	31651	17.90	$269	$152,404,413
Total	**100.00%**		**54571**			**$285,324,937**
Reduced health system costs						*$26,029,278*
Additional specialist costs						*$3,164,303*
Notional savings						***$22,864,976***

Financial year 2012-13

DoHA 2012 lower estimates of referral – total notional savings

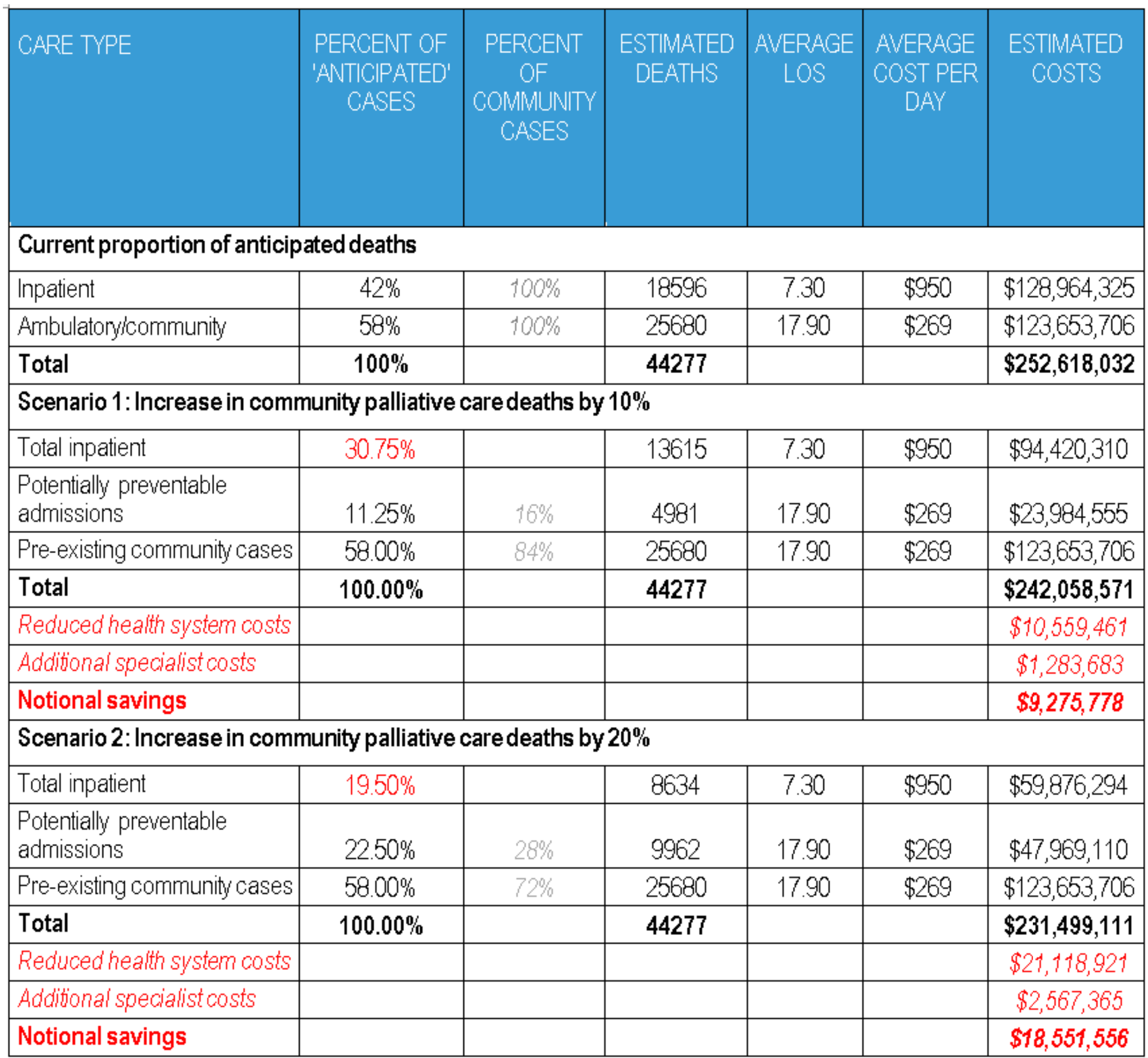
Number of deaths	149459
Proportion of 'anticipated' deaths	24.90%
Number of 'anticipated' deaths	37215
Proportion of specialist referrals	61.50% (currently referred for palliative medicine specialist assessment in hospital or community)
Number of 'anticipated' deaths referred	22887

CARE TYPE	PERCENT OF 'ANTICIPATED' CASES	PERCENT OF COMMUNITY CASES	ESTIMATED DEATHS	AVERAGE LOS	AVERAGE COST PER DAY	ESTIMATED COSTS
Current proportion of anticipated deaths						
Inpatient	42%	*100%*	9613	7.30	$950	$66,664,142
Ambulatory/community	58%	*100%*	13275	17.90	$269	$63,918,981
Total	**100%**		**22887**			**$130,583,122**
Scenario 1: Increase in community palliative care deaths by 10%						
Total inpatient	30.75%		7038	7.30	$950	$48,807,675
Potentially preventable admissions	11.25%	*16%*	2575	17.90	$269	$12,398,078
Pre-existing community cases	58.00%	*84%*	13275	17.90	$269	$63,918,981
Total	**100.00%**		**22887**			**$125,124,734**
Reduced health system costs						*$5,458,388*
Additional specialist costs						*$663,560*
Notional savings						***$4,794,828***
Scenario 2: Increase in community palliative care deaths by 20%						
Total inpatient	19.50%		4463	7.30	$950	$30,951,209
Potentially preventable admissions	22.50%	*28%*	5150	17.90	$269	$24,796,156
Pre-existing community cases	58.00%	*72%*	13275	17.90	$269	$63,918,981
Total	**100.00%**		**22887**			**$119,666,345**
Reduced health system costs						*$10,916,777*
Additional specialist costs						*$1,327,120*
Notional savings						***$9,589,656***

Financial year 2012-13

DoHA 2012 upper estimates of referral – total notional savings

Number of deaths	149459
Proportion of ‘anticipated’ deaths	48.17%
Number of ‘anticipated’ deaths	71994
Proportion of specialist referrals	61.50% (currently referred for palliative medicine specialist assessment in hospital or community)
Number of ‘anticipated’ deaths referred	44277



CARE TYPE	PERCENT OF 'ANTICIPATED' CASES	PERCENT OF COMMUNITY CASES	ESTIMATED DEATHS	AVERAGE LOS	AVERAGE COST PER DAY	ESTIMATED COSTS
Current proportion of anticipated deaths						
Inpatient	42%	*100%*	18596	7.30	$950	$128,964,325
Ambulatory/community	58%	*100%*	25680	17.90	$269	$123,653,706
Total	**100%**		**44277**			**$252,618,032**
Scenario 1: Increase in community palliative care deaths by 10%						
Total inpatient	30.75%		13615	7.30	$950	$94,420,310
Potentially preventable admissions	11.25%	*16%*	4981	17.90	$269	$23,984,555
Pre-existing community cases	58.00%	*84%*	25680	17.90	$269	$123,653,706
Total	**100.00%**		**44277**			**$242,058,571**
Reduced health system costs						*$10,559,461*
Additional specialist costs						*$1,283,683*
Notional savings						***$9,275,778***
Scenario 2: Increase in community palliative care deaths by 20%						
Total inpatient	19.50%		8634	7.30	$950	$59,876,294
Potentially preventable admissions	22.50%	*28%*	9962	17.90	$269	$47,969,110
Pre-existing community cases	58.00%	*72%*	25680	17.90	$269	$123,653,706
Total	**100.00%**		**44277**			**$231,499,111**
Reduced health system costs						*$21,118,921*
Additional specialist costs						*$2,567,365*
Notional savings						***$18,551,556***

Financial year 2012-13

AChPM 2005 lower estimates of referral – total notional savings

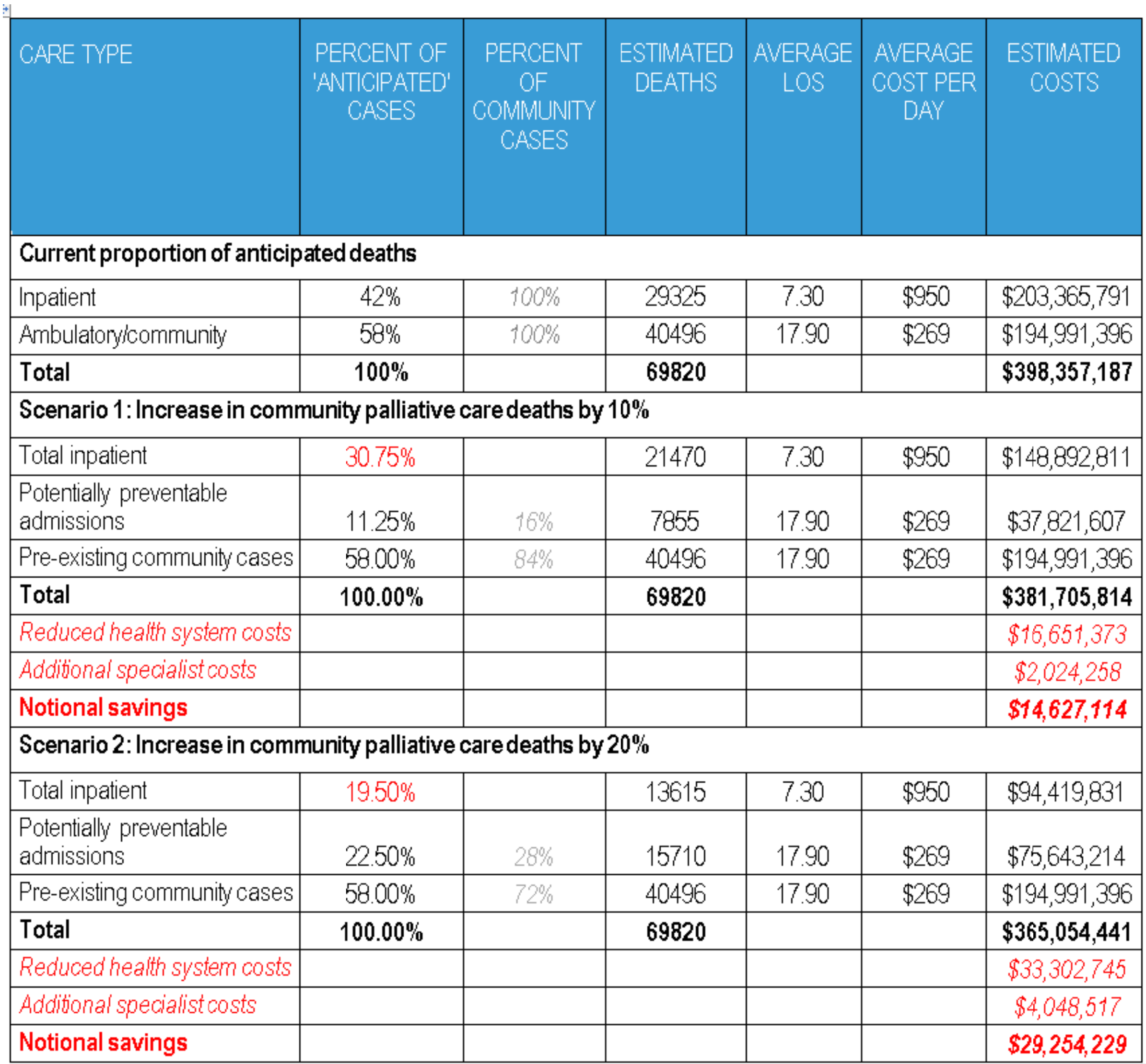
Number of deaths	149459
Proportion of 'anticipated' deaths	70.00%
Number of 'anticipated' deaths	104621
Proportion of specialist referrals	61.50%(currently referred for palliative medicine specialist assessment in hospital or community)
Number of 'anticipated' deaths referred	64342

CARE TYPE	PERCENT OF 'ANTICIPATED' CASES	PERCENT OF COMMUNITY CASES	ESTIMATED DEATHS	AVERAGE LOS	AVERAGE COST PER DAY	ESTIMATED COSTS
Current proportion of anticipated deaths						
Inpatient	42%	*100%*	27024	7.30	$950	$187,409,233
Ambulatory/community	58%	*100%*	37318	17.90	$269	$179,691,913
Total	**100%**		**64342**			**$367,101,146**
Scenario 1: Increase in community palliative care deaths by 10%						
Total inpatient	30.75%		19785	7.30	$950	$137,210,331
Potentially preventable admissions	11.25%	*16%*	7238	17.90	$269	$34,854,035
Pre-existing community cases	58.00%	*84%*	37318	17.90	$269	$179,691,913
Total	**100.00%**		**64342**			**$351,756,279**
Reduced health system costs						*$15,344,867*
Additional specialist costs						*$1,865,430*
Notional savings						***$13,479,437***
Scenario 2: Increase in community palliative care deaths by 20%						
Total inpatient	19.50%		12547	7.30	$950	$87,011,430
Potentially preventable admissions	22.50%	*28%*	14477	17.90	$269	$69,708,070
Pre-existing community cases	58.00%	*72%*	37318	17.90	$269	$179,691,913
Total	**100.00%**		**64342**			**$336,411,413**
Reduced health system costs						*$30,689,734*
Additional specialist costs						*$3,730,861*
Notional savings						***$26,958,873***

Financial year 2012-13

AchPM 2005 upper estimates of referral – total notional savings

Number of deaths	149459
Proportion of ‘anticipated’ deaths	75.96%
Number of ‘anticipated’ deaths	113529
Proportion of specialist referrals	61.50% (currently referred for palliative medicine specialist assessment in hospital or community)
Number of ‘anticipated’ deaths referred	69820

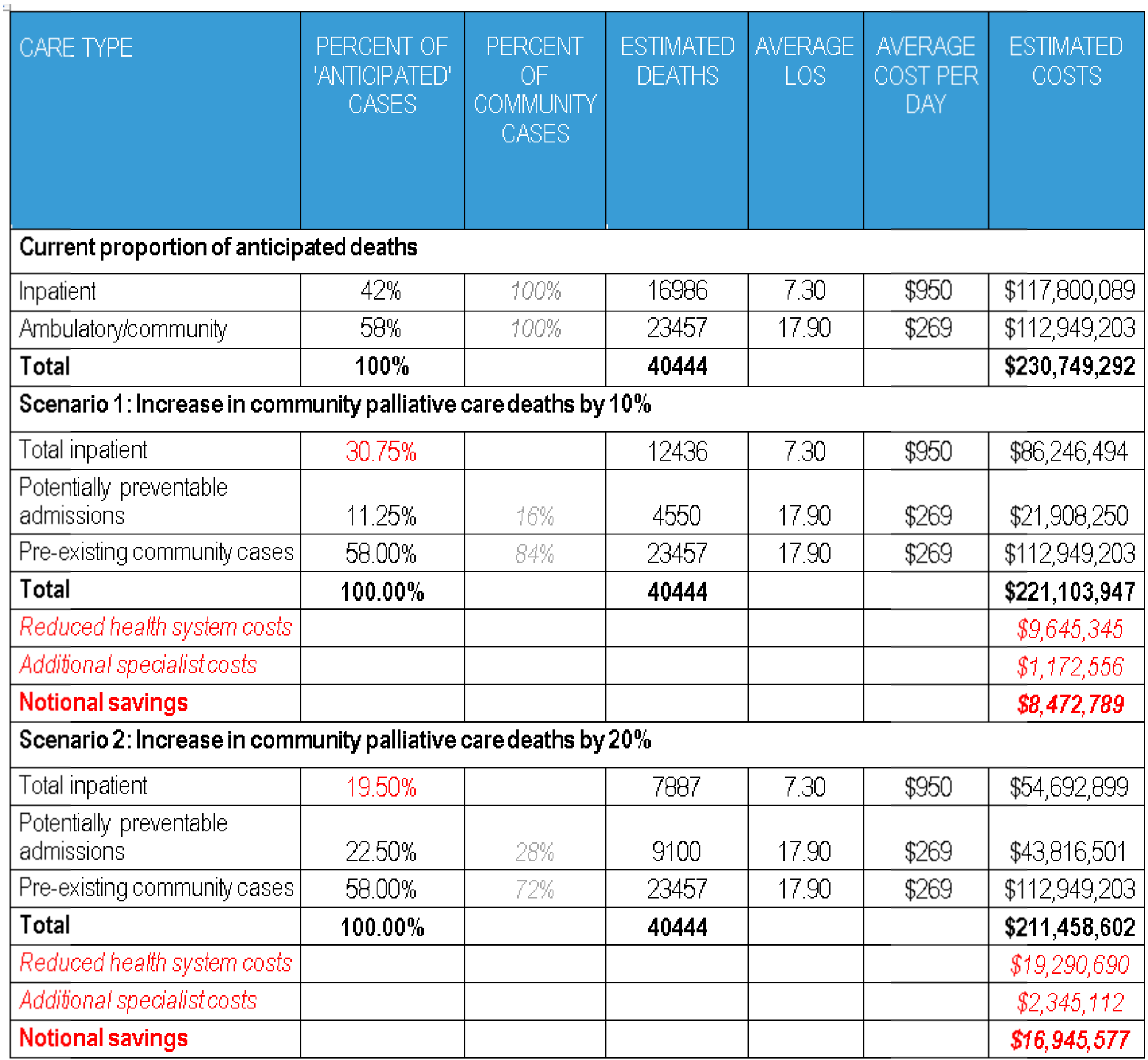


CARE TYPE	PERCENT OF 'ANTICIPATED' CASES	PERCENT OF COMMUNITY CASES	ESTIMATED DEATHS	AVERAGE LOS	AVERAGE COST PER DAY	ESTIMATED COSTS
Current proportion of anticipated deaths						
Inpatient	42%	*100%*	29325	7.30	$950	$203,365,791
Ambulatory/community	58%	*100%*	40496	17.90	$269	$194,991,396
Total	**100%**		**69820**			**$398,357,187**
Scenario 1: Increase in community palliative care deaths by 10%						
Total inpatient	30.75%		21470	7.30	$950	$148,892,811
Potentially preventable admissions	11.25%	*16%*	7855	17.90	$269	$37,821,607
Pre-existing community cases	58.00%	*84%*	40496	17.90	$269	$194,991,396
Total	**100.00%**		**69820**			**$381,705,814**
Reduced health system costs						*$16,651,373*
Additional specialist costs						*$2,024,258*
Notional savings						***$14,627,114***
Scenario 2: Increase in community palliative care deaths by 20%						
Total inpatient	19.50%		13615	7.30	$950	$94,419,831
Potentially preventable admissions	22.50%	*28%*	15710	17.90	$269	$75,643,214
Pre-existing community cases	58.00%	*72%*	40496	17.90	$269	$194,991,396
Total	**100.00%**		**69820**			**$365,054,441**
Reduced health system costs						*$33,302,745*
Additional specialist costs						*$4,048,517*
Notional savings						***$29,254,229***

Financial year 2012-13

Rosenwax et al 2005 lower estimates of referral – total notional savings

Number of deaths	149459
Proportion of 'anticipated' deaths	44.00%
Number of 'anticipated' deaths	65762
Proportion of specialist referrals	61.50% (currently referred for palliative medicine specialist assessment in hospital or community)
Number of 'anticipated' deaths referred	40444

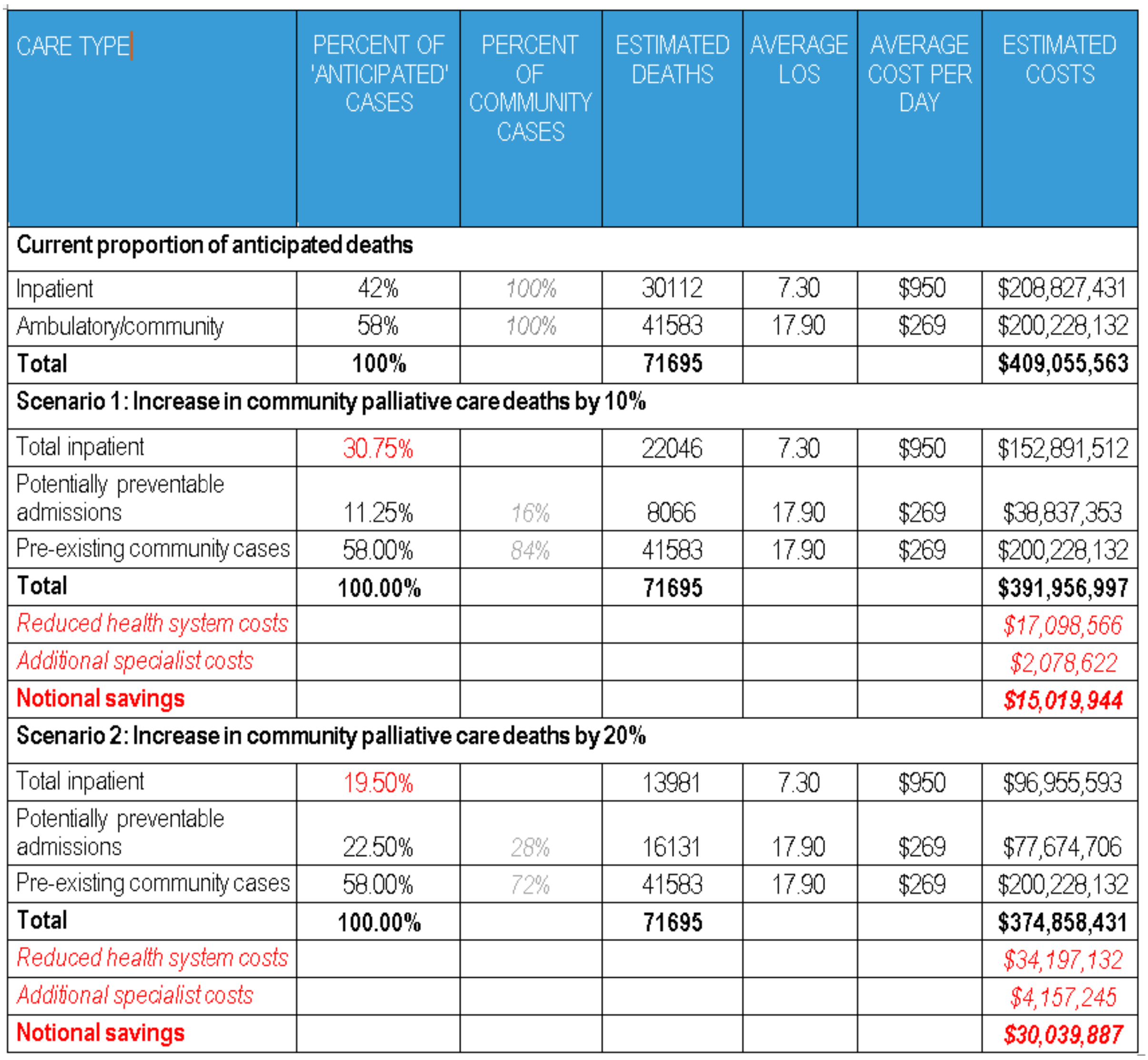


CARE TYPE	PERCENT OF 'ANTICIPATED' CASES	PERCENT OF COMMUNITY CASES	ESTIMATED DEATHS	AVERAGE LOS	AVERAGE COST PER DAY	ESTIMATED COSTS
Current proportion of anticipated deaths						
Inpatient	42%	*100%*	16986	7.30	$950	$117,800,089
Ambulatory/community	58%	*100%*	23457	17.90	$269	$112,949,203
Total	**100%**		**40444**			**$230,749,292**
Scenario 1: Increase in community palliative care deaths by 10%						
Total inpatient	30.75%		12436	7.30	$950	$86,246,494
Potentially preventable admissions	11.25%	*16%*	4550	17.90	$269	$21,908,250
Pre-existing community cases	58.00%	*84%*	23457	17.90	$269	$112,949,203
Total	**100.00%**		**40444**			**$221,103,947**
Reduced health system costs						*$9,645,345*
Additional specialist costs						*$1,172,556*
Notional savings						***$8,472,789***
Scenario 2: Increase in community palliative care deaths by 20%						
Total inpatient	19.50%		7887	7.30	$950	$54,692,899
Potentially preventable admissions	22.50%	*28%*	9100	17.90	$269	$43,816,501
Pre-existing community cases	58.00%	*72%*	23457	17.90	$269	$112,949,203
Total	**100.00%**		**40444**			**$211,458,602**
Reduced health system costs						*$19,290,690*
Additional specialist costs						*$2,345,112*
Notional savings						***$16,945,577***

Financial year 2012-13

Rosenwax et al 2005 upper estimates of referral – total notional savings

Number of deaths	149459
Proportion of 'anticipated' deaths	78.00%
Number of 'anticipated' deaths	116578
Proportion of specialist referrals	61.50% (currently referred for palliative medicine specialist assessment in hospital or community)
Number of 'anticipated' deaths referred	71695



CARE TYPE	PERCENT OF 'ANTICIPATED' CASES	PERCENT OF COMMUNITY CASES	ESTIMATED DEATHS	AVERAGE LOS	AVERAGE COST PER DAY	ESTIMATED COSTS
Current proportion of anticipated deaths						
Inpatient	42%	*100%*	30112	7.30	$950	$208,827,431
Ambulatory/community	58%	*100%*	41583	17.90	$269	$200,228,132
Total	**100%**		**71695**			**$409,055,563**
Scenario 1: Increase in community palliative care deaths by 10%						
Total inpatient	30.75%		22046	7.30	$950	$152,891,512
Potentially preventable admissions	11.25%	*16%*	8066	17.90	$269	$38,837,353
Pre-existing community cases	58.00%	*84%*	41583	17.90	$269	$200,228,132
Total	**100.00%**		**71695**			**$391,956,997**
Reduced health system costs						*$17,098,566*
Additional specialist costs						*$2,078,622*
Notional savings						***$15,019,944***
Scenario 2: Increase in community palliative care deaths by 20%						
Total inpatient	19.50%		13981	7.30	$950	$96,955,593
Potentially preventable admissions	22.50%	*28%*	16131	17.90	$269	$77,674,706
Pre-existing community cases	58.00%	*72%*	41583	17.90	$269	$200,228,132
Total	**100.00%**		**71695**			**$374,858,431**
Reduced health system costs						*$34,197,132*
Additional specialist costs						*$4,157,245*
Notional savings						***$30,039,887***

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Appendix 3 Current NHMRC funded research

NHMRC PALLIATIVE CARE RESEARCH GRANTS
Pharmacotherapy and other Therapies
1. Randomised control trial of Risperidone versus Haloperidol versus placebo with rescue haloperidol in delirium in palliative care.
2. An evaluation of the validity of measuring salivary oxycodone concentrations for pharmacokinetic studies in palliative care patients.
3. Subcutaneous ketamine in cancer pain.
4. Comparing the effectiveness of paracetamol and placebos in advanced cancer patients on opioids.
5. Oxygen to relieve dyspnoea in non-hypoxaemic patients with end-stage heart failure
6. A multi-centre randomised double-blind controlled trial of oxygen versus air for the relief of breathlessness in terminally-ill patients with intractable dyspnoea and PaO2 >55mmHg
7. What are the unmet care needs of patients with end-stage chronic obstructive pulmonary disease and how can they be addressed?
8. Using Single Patient Trials to determine the effectiveness of psycho-stimulants in fatigue in advanced cancer patients
9. QUARTZ: Quality of Life After Radiotherapy and/or Steroids
Palliative Care and Cancer
10. A randomised controlled trial of the cost effectiveness of models of supportive care coordination for advanced cancer
11. Preliminary study of association between nutritional indices, psychosocial factors, cytokines and survival in advanced cancer patients
12. A randomised clinical trial to test a pain education program for patients with cancer and their family carers
13. A randomised controlled trial of an innovative supportive care program designed to reduce perceived needs and psychological distress and enhance quality of life amongst people with incurable lung cancer
14. Nutrition and rehabilitation in advanced cancer patients
15. A prospective longitudinal study of symptom clusters and their effects on physical and psychological functioning of patients with metastatic cancer
16. An exploration of functional decline and the potential for rehabilitation in patients with advanced non-small-cell lung cancer.
17. The development of a meaning centred therapy for patients with advanced cancer – an intervention study.
18. Life threatening cancer across the lifespan: Examining the relevance of music to patients and their

NHMRC PALLIATIVE CARE RESEARCH GRANTS
companions.
19. Evidence for psychological and educational interventions for cancer-related fatigue.
End-of-Life Planning and Care Planning
20. Prospective study of medical-emergency team calls to define issues of end-life decision making, symptoms and transition in goals of care.
21. End of life care options in the community for people with dementia.
22. Pilot randomised study of telemedicine consultation versus face-to-face consultation in palliative medicine.
23. Discussing prognosis & end-of-life issues in palliative care; current practice & development of an evidence based training program
24. An investigation of care-planning decisions in advanced pulmonary and cardiac illness in the Bayside Health Care region.
Education
25. Identifying e-health literacy and readability issues for palliative-care consumers.
26. Needs based access to specialist palliative care services: Development and evaluation of a Consumer Toolkit
27. Development and implementation of an educational program to guide palliative care for people with Motor Neurone Disease.
Palliative Care in Community and Other Residential Settings
28. Primary care: what is GPs' approach to patients with advanced cancer and those who require radiotherapy?
29. Identification of the palliative care needs of home-based people with end-stage dementia.
30. Meeting the needs of the elderly: implementing the palliative approach for people with declining health in home and hostel accommodation.
31. Strengthening community based Palliative Care Services: Towards a better understanding of the medical aspects of caring for children (and their families).
32. Palliative Care approaches for Pain Management Education among Care Assistants in Residential Aged Care Hostels: A feasibility study
33. Case conferencing, quality of life and palliative care for clients from remote communities in the Northern Territory.
34. Development of a palliative approach in residential care outcome scale (PARCOS).
Care Givers
35. Helping family caregivers of palliative care patients manage their role: evaluation of a hospital based group education intervention
36. Improving the psychological wellbeing of family caregivers of home based palliative care patients: A randomised controlled trial

NHMRC PALLIATIVE CARE RESEARCH GRANTS
37. An instrument to measure self–efficacy in family cares of patients with advanced cancer - a questionnaire.
Other
38. Palliative care for Aboriginal and Torres Strait Islander people with end-stage renal disease: an action research initiative
39. Client centred palliative rehabilitation: An evaluation of its efficacy.
40. Needs based palliative care: Evaluation of the Palliative Care Needs Assessment Guidelines and Palliative Care Needs Assessment Tool.
41. Developing and Measuring Palliative Care Decision Making Skill.
42. How do risk factors for complicated grief identified before death contribute to outcomes for the bereaved?
43. The development of a model of care for Haematology and Palliative Care
44. A study to pilot a clinical trial to test dignity psychotherapy for the frail aged
45. A model of current and potential palliative care constituency: Measuring met and unmet needs
46. Supporting pathways to palliative care for people diagnosed with chronic kidney disease.
47. Informing development of national guidelines for palliative care in ambulance services by exploring current service provision.