



The Royal Australasian  
College of Physicians

**RACP Submission:**  
**Senate Select Committee on Health**  
September 2014

## Executive summary

Australia's healthcare system faces many challenges; demographic change, the burden of chronic disease, the rising costs of healthcare, and the need for greater involvement of patients and their carers in their health decisions.

The RACP believes that the time is right for some badly needed reforms. Whilst Australia is internationally recognised as delivering high quality care within an affordable system, both these aspects are increasingly coming under pressure. There are too many instances where the quality and timeliness of care is unnecessarily compromised. There are too many areas of systemic inefficiencies and wasted expenditure.

Good healthcare is often provided in spite of the system. Conversely, there are times when poor care is provided despite clinicians' best efforts. This needs to change. Australia needs a system that not only supports, but drives and enables high quality care. We need a system that is efficient, integrated, makes better use of technologies and that has a workforce that matches patients' needs.

It is clear that reforms are needed, and needed now. The RACP makes the following recommendations, to ensure the future viability of Australia's world class healthcare system:

1. Integrated care must be central to the remit of the new Primary Health Networks, which should be tasked and funded to drive the integration of healthcare services for their defined populations.
2. New models of care must be developed which are centred around patients, designed to support multidisciplinary healthcare teams and support a greater provision of specialist care in community based settings.
3. Alternative healthcare funding models that facilitate and reward integrated care should be developed; in particular those that blend the current fee for service model (whether at the practitioner or hospital level) with alternative approaches such as capitation payments and bundled payments.
4. The adoption of and support for a national framework to underpin a nationally networked, coordinated and consistent system that enables equitable access to specialist medical care with complete geographical coverage across Australia; particularly focused on addressing the current inequities in access for Australia's first peoples
5. Strategies must be adopted that drive better physician uptake of My eHealth Record and associated communication systems to support improved flows of information across the health system; such as those recommended in the recently completed review of the Personally Controlled Electronic Health Records .
6. The amalgamation of Health Workforce Australia's core functions into the Commonwealth Department of Health must be supported by a governance structure that ensures the new approach does not lose the strengths of HWA's organisational structure as an independent, stand-alone body with a separate Board and public charter.
7. The Specialist Training Programme (STP), which has been highly successful in increasing the numbers in general medicine training and in providing training in a variety of healthcare settings, should receive long term funding. The STP should also be assessed to consider whether the current number of positions it funds is sufficient for our future workforce needs or whether the number of positions should be expanded.
8. There should be nationally consistent and transparent funding of teaching, training and research (TTR) activities in hospital and in other healthcare settings.

9. Future healthcare funding decisions should take into account the need for more General and Acute Medicine Units and for more General Medicine specialists.
10. Higher and well-targeted funding for preventative health and recognition of this important 'upstream' investment is warranted.
11. Commonwealth, State and Territory and local governments need to work together, under a properly coordinated intergovernmental framework, to set nationally consistent rates of taxation for all alcoholic drinks based on alcohol content.
12. The Commonwealth Department of Health, in taking over the functions of the Australian National Preventive Health Agency (ANPHA), should as a priority look at the development and implementation of policies to change the drinking culture in Australia and reduce the current levels of alcohol-related harm.

## 1. Introduction

The Royal Australasian College of Physicians (RACP) welcomes the opportunity to provide input to the Select Committee on Health inquiry into health policy, administration and expenditure. Our submission will address the terms of reference for this inquiry guided by the following principles, which we would commend as fundamental to the formulation of healthcare policy:

- Healthcare should be centred around the needs of patients and also by extension, their families and carers
- Healthcare should be universally accessible and provided on fair and equitable terms
- Healthcare should be high quality, safe and effective and efficient.

Australia's healthcare system faces a number of interrelated challenges:

- Demographic trends, notably the ageing of the population, which is already placing increased demands on healthcare services
- An increasing burden of chronic diseases such as diabetes, arthritis, cancers and heart disease
- An increasing share of government budgets being devoted to healthcare
- Continuing barriers to accessible and affordable healthcare for some.

The Australian healthcare system currently pays too little attention to prevention and health promotion, so rather than being able to stem the worsening impact of chronic disease we are just responding to it. The current silo and fragmented approach to delivering health services to many patients – particularly older people and those with multiple chronic diseases – means that they can end up receiving care that is below par, despite individual clinicians' best efforts.

Policies that prioritise prevention and enable the better integration of health services are fundamental to improving the quality of patient care and creating a sustainable healthcare system. These policies need to be implemented by a health workforce that matches the population's health needs.

This submission briefly summarises the challenges facing the Australian health system and then recommends prioritising preventive health; matching the health workforce to population needs; and creating funding models that support the integration of care - a goal which is essential for the delivery of effective and efficient person-centred healthcare.

## **Challenges facing the Australian healthcare system**

### ***Australia's aging population***

The 2010 Intergenerational Report estimates that between now and 2050, the proportion of Australians aged over 65 years or more is expected to almost quadruple.<sup>1</sup> The population aged 75 or more years is expected to increase from about 6.4 per cent of the population in 2012 to 14.4 per cent of the population in 2060.<sup>2</sup> This ageing of the Australian population will lead to correspondingly higher demands on the healthcare system as older people have greater healthcare needs than other age groups, reflecting issues associated with ageing and their higher incidence of disease, including their higher incidence of chronic comorbidities.<sup>3</sup> For example while only around 2 per cent of the Australian population had four or more chronic conditions, for those aged 65 years and over this incidence was around 8 per cent.<sup>4</sup>

This leads to significant differences in healthcare needs. For patients aged 65 and over, more than double the percentage had consulted a specialist within the last 12 months compared to those under 65 (57 percent compared with 28 per cent); and nearly double had been admitted to hospital as an inpatient (around 20 per cent compared with 11 per cent).<sup>5</sup>

### ***Increasing burden of chronic disease***

Australia is also facing an increasing burden from chronic disease, with the four most expensive disease groups being chronic diseases — namely cardiovascular diseases, oral health, mental disorders, and musculoskeletal — incurring direct health-care costs that comprised 43 per cent of all allocated health expenditure in 2008–09<sup>6</sup>.

Research by the Australian Institute of Health and Welfare indicates that the number of new cases of cerebrovascular disease, coronary heart disease, lung cancer for males (due to demographic factors alone as the current cohort of smokers ages), dementia and diabetes will increase significantly over the 30 years to 2033.<sup>7</sup>

Although the age-standardised rates of prevalence for some chronic diseases are expected to stay static or fall, the ageing of the population is expected to lead to an increasing burden of chronic disease in the community. Diabetes will account for the largest projected increase (436 per cent) in government spending on health and residential aged care costs in the 30 years to 2033, followed by dementia (364 per cent).<sup>8</sup>

Given the direct relationship between diabetes and obesity, and the fact that Australia has an estimated 28 per cent of adults now classified as obese<sup>9</sup>, with this number projected to increase still further, effective strategies to prevent these health issues are vital. The need for long-term and nationally coordinated preventive health measures has never been greater.

### ***Healthcare as increasing share of GDP***

Federal and State Governments are facing an increased proportion of government budgets being devoted to health and related costs. According to one projection, the Productivity Commission has recently estimated that Commonwealth health expenditure as a share of GDP will rise from around 4 per cent currently to 7 per cent in 2059-60, while State expenditure on health as a share of GDP will rise from around 2.5 per cent of GDP to almost 4.0 per cent of GDP over the same period.<sup>10</sup> Historically, total health expenditure has been growing at a higher annual rate than GDP over the last decade.<sup>11</sup>

### ***Accessible and affordable healthcare for all Australians***

As government health budgets have been increasing, so have out of pocket (OOP) costs contributed by individuals to their own healthcare. While these OOP expenditures as a share of total healthcare expenditures have remained about the same from a decade ago<sup>12</sup>, their value increased in real terms between 2007 and 2013.<sup>13</sup> Moreover, OOP expenses as a share of total household expenditure increased from 2.7 per cent to 3.2 per cent over the last 10 years. In the OECD, the level of OOP healthcare costs in Australia is third after the US and Switzerland when compared to

the OECD average.<sup>14</sup> One driver of these increases is the volume of treatments provided per episode of care, which has increased.<sup>15</sup>

### ***Better integration of care is key to effective and sustainable healthcare***

Given these trends, there will be increasing challenges to providing the required level of healthcare services while keeping quality of healthcare high and delivering safe and effective interventions. There is certainly scope to improve the efficiency of the system, with one estimate suggesting that 25 per cent of healthcare spending is wasted through lack of coordination, duplication in medical testing, use of unnecessary procedures and an over-reliance on more costly hospital care rather than on primary health care.<sup>16</sup>

This submission argues that there is one overarching idea that is fundamental to addressing these interrelated challenges of rising health budgets, growing demands on the healthcare system and pressures on affordability of access – namely better integrated care. The rest of this submission elaborates on this proposition and supplies concrete recommendations on policies that would see Australia move in this direction.

## **2. Strategic approach to future health policies**

The RACP supports health system reforms that drive efficiency improvements whilst keeping quality patient care at the forefront. We are strong proponents of a 'cost-conscious' health system, but this does not translate to support for erecting cost barriers that impede people's access to health services nor the removal of funding from acute and emergency care.

The 2013-14 Federal Budget announcements to cease the funding guarantees provided under the National Health Reform Agreement 2011 and revise the Commonwealth Public Hospital funding arrangements from 1 July 2017 will cut almost \$2 billion from budgets to 2017-18. The impact on frontline health services will be significant.

These funding cuts will place increasing pressures on public hospitals. The return to block funding, with no account taken of changing population health needs or incidence of chronic disease, is a retrograde step. It undermines funding transparency, removes a productivity driver and risks re-invigorating the 'blame game'. The result will be longer waiting lists, cost-shifting and increased rationing of health services - outcomes which have the greatest impact on the most vulnerable in our society.

Health policies must recognise but not be daunted by the complexity of healthcare in Australia. Federal and State government share responsibility for delivering health services. These joint funding arrangements are hard to define and manage, and can exacerbate the silo approach to healthcare. New funding models that promote person-centred health care are needed to overcome this. These need to support integrated and collaborative approaches, particularly at the local level. Funding models that reward health services that deliver seamless person-centred care will deliver system-wide efficiencies while also improving the quality of patient care.

In response to the Inquiry's terms of reference the RACP is calling for health policies that:

- deliver integrated person-centred care;
- train and support a health workforce that match the populations health needs; and
- promote preventive health.

## 2.1 Integrated person-centred care

Integrated care can be defined as providing seamless, coordinated, effective and efficient care that delivers on a patient's health needs in partnership with the patient, their family and carers. Integrated care is a very broadly defined idea, with one recent review finding 175 definitions and concepts related to it. The common theme running through all the definitions is the concept of changing the focus of healthcare from the episodic treatment of acute illness to patient-centred provision of a coordinated range of services.<sup>17</sup>

Core to integrated care is its move to be patient (or people) centred. The concept of patient or person centred care is well-accepted as an ideal paradigm across healthcare systems internationally. It revolves around the idea of patients as the central focus of healthcare delivery and playing an active role in health-care decision making.<sup>18</sup> The concept draws on research conducted by the Harvard School of Medicine<sup>19</sup> which identified the following eight 'dimensions' associated with patient centred care:

- Respect for patients' preferences and values
- Emotional support
- Physical comfort
- Information, communication and education
- Continuity and transition
- Coordination of care
- Involvement of family and friends and
- Access to care.

A related though broader concept endorsed by the World Health Organisation is that of 'people centred care' which includes taking into account a more holistic and community oriented perspective on healthcare.<sup>20</sup> For individuals, patients and their families, the key characteristics of people-centred health care include:<sup>21</sup>

- Access to clear, concise and intelligible health information and education that increase health literacy;
- Equitable access to health systems, effective treatments, and psycho-social support;
- Personal skills which allow control over health and engagement with health care systems: communication, mutual collaboration and respect, goal setting, decision making, and problem solving, self-care; and
- Supported involvement in health care decision-making, including health policy.

There is increasing focus on integrated care as a means of driving both quality of care and improved efficiencies. Patients with complex and multiple conditions, including in particular older patients with frailty and dementia and of limited mobility, would have the most to gain from greater collaboration and integration of services across professions and care settings.

The issue of patients having to attend multiple providers multiple times is often not fully appreciated in terms of its impact. Studies have demonstrated the importance of better coordinating care for patients, as those with a chronic disease report negative experiences in their care pathway<sup>22</sup> including:

- Wasting time waiting for appointments
- Having multiple appointments with different professionals on different days
- Problems with transport to health services
- Difficulties accessing health services
- Rushed encounters that resulted in unrealistic self-management plans

These problems can lead to patients missing appointments, being lost to follow up, not adhering to treatment or medication plans, and potential interactions between medications prescribed by

difference providers. Specialists working with young people with a chronic disease report their fear of losing their job or missing out on career advancement, due to their need to take time off work to attend medical appointments.<sup>23</sup>

Better integrated care also has the potential to improve the efficiency of the health system, by reducing wastage resulting from the duplication of tests and diagnostic imaging. By reducing the need for multiple referrals and tests, integrated care could make significant inroads into reducing this level of waste, freeing up more resources for essential health services. According to a presentation by the UK National Health Service's Director of Long Term Conditions, approximately 10 per cent of the savings cultivated by better integrated care could come from avoiding low-value medical interventions.<sup>24</sup>

Further efficiencies could be achieved by supporting more specialist services being provided outside the hospital settings. Frequently it would be more appropriate for patients to be seen in community settings including primary healthcare centres, residential aged care facilities and people's homes. Current funding models do not adequately support this person centred approach.

It was estimated that in 2011-12 there were 635,000 hospital admissions which were considered to be potentially avoidable, accounting for 7 per cent of all hospital admissions.<sup>25</sup> Evidence suggests that better integrating care will lead to significant reduction in avoidable admissions.

Furthermore, in terms of quality of care, one review of studies found that integrated care for chronically ill patients led to improvements in several outcomes for patients with Type 2 diabetes, chronic obstructive pulmonary disease and stroke, heart failure, and depression and other mental illnesses.<sup>26 27</sup>

There are four policy 'enablers' which could help Australia achieve integrated care. These are:

- **New models of care** that support the provision of patient-centred care; enable care across multiple episodes; encourage multidisciplinary health teams; and allow care to be provided at the most appropriate location in the most appropriate way by the most appropriate health professional.
- **Information and communication systems** to improve the timely flow of information between health providers, and to the patient and their carers. These information systems would ensure clinicians have the right information at the right time, reduce the incidence of repeated tests and diagnostics, enable the better coordination of services, reduce the potential for unsafe interactions or interventions, and support the involvement of patients, carers and families in the decision making process.
- **New funding models** of healthcare that drive high quality care; support and enable models of integrated care; allow more services to be provided in community –based settings; and appropriately value the time and work required to support integrated care.
- **Sponsoring and accountable organisations** to facilitate the required change management to develop, establish and embed these better integrated healthcare models.

### **New models of care – community based care and multidisciplinary teams**

New models of care are needed that can move across the multiple instances of care provided by different healthcare professionals and outside hospital walls. One possible blueprint for this which is worthy of investigation is the UK Future Hospital Commission (FHC) model of extending hospital services into the community, alongside primary and social care services.<sup>28</sup> Under the FHC model, these specialised services, currently largely hospital based, would be increasingly delivered in or

close to the patient's home, usually by a cohort of staff linked to local hospitals working alongside primary and social care services seven days a week. In the event that hospital admission is required, services would then be designed in such a way as to allow return to the community on the day that an acute hospital bed is no longer required.

There are also many models of community based care in Australia which have been proven to be successful at reducing avoidable hospital admissions.<sup>29</sup> More consideration needs to be given by Australian health authorities, including Local Health Districts and the proposed Primary Health Networks (PHNs), towards wider adoption of such models.

**Appendix 1** discusses a case study of the possible benefits of community based care in the context of providing specialist services to Aboriginal and Torres Strait Islander communities.

The health system needs to have a greater focus on multidisciplinary healthcare teams. According to one comprehensive review of studies, integrated care strategies that led to the highest proportion of significant positive outcomes for patients were those that enabled strong relationships between service providers, such as co-location of primary healthcare and other service providers, case management, and multidisciplinary teams.<sup>30</sup>

### Information and communication systems

Electronic health record systems have been proposed as a key component of shared information systems needed for integrated care.<sup>31</sup> It is essential for the provision of safe and appropriate care that the relevant information leading to and arising from clinical interactions is captured and made available to the patient's healthcare providers.

Population level data collated from electronic health records also have significant potential to drive continuous quality improvements; at organisational, State-wide and national levels.

There is room for significant improvement in the implementation of the My eHealth Record infrastructure (previously known as the Personally Controlled Electronic Health Record), particularly if it is to be used as an enabler of integrated care. Currently the e-health infrastructure is still insufficiently comprehensive in its coverage of healthcare professionals and their patient records.

The review of the PCEHR commissioned by the government has recognised that there is a need for early engagement with specialists, including private specialists, to support and integrate eHealth records with their existing workflows.<sup>32</sup> The review also recognised that one of the current barriers to further uptake of eHealth is the absence of compatible software, specifically in the specialist and allied health sectors. Key clinical documents that still cannot be sent to and incorporated into the eHealth record include specialist letters from many public hospital clinics and private clinics. Without comprehensive coverage and uptake, the full potential for up-to-date, accurate and timely sharing of a patient's health information cannot be realised. The focus to date has very much been on general practice but it is important that the role of specialists in eHealth is recognised and addressed.

Strategies need to be employed to increase the uptake of eHealth. The review's recommendations which urgently need follow up in this respect are to:

- incentivise specialist uptake of eHealth records and continue support of standardised secure messaging and clinical information exchange between care providers
- incentivise specialists to use Clinical Information Systems (CIS) to improve uptake of electronic patient records
- update the Medical Specialist outreach assistance programs to include an expectation of electronic communication.

The infrastructure used for electronic health records and an improved flow of information also provides opportunities to increase the use of telehealth patient consultations. There is widespread support for video-consultations, however their adoption is hindered in some instances by lack of appropriate infrastructure and also people unfamiliarity with technology. The increased use of technology across all sectors of the health system offers significant potential for improved patient care and efficiencies, and is an urgent priority.

### New funding models

New funding models are needed that encourage and reward healthcare professionals and service providers to work together and encourage early intervention or preventive care. The fee for service (FFS) model of medicine whether at the practitioner level of general practitioners (GPs) or consultant physicians has its place but other models that reduce duplication and enable seamless care are also needed. Under the FFS model, healthcare service providers receive a fee for each service such as a consultation, test, procedure, or other health care service but can at times provide a perverse incentive of encouraging multiple visits and procedures, while discouraging synergies and efficiencies or better quality care.

The UK's Future Hospitals Commission has noted that activity based funding, which is a form of FFS, works well for straightforward elective conditions, but not so well for complex emergencies or patients with multiple conditions.<sup>33</sup> In Australia the Independent Hospital Pricing Authority (IHPA) is currently considering the approach of paying for 'bundles' of services (or episodes of care) as an alternative payment model for hospitals to provide chronic or long term care services.<sup>34</sup>

New funding models that are geared towards driving the better integration of care and fostering stronger collaboration between healthcare professionals are needed. The RACP supports the development of a blended payment system, rather than trying to find one that suits all the needs and difference contexts. Federal and State governments need to investigate options to incorporate the FFS model, whether at the practitioner or hospital level, with alternative approaches such as capitation payments and bundled payments.

**Appendix 2** discusses the two alternatives of capitation and episode of care payments in further detail.

### Opportunities to progress Integrated Care

Moving the healthcare system towards better integrated care requires a sponsoring organisation which can be held accountable for a person's care. It also requires a mechanism to facilitate joint decision making among relevant stakeholders. The current healthcare system lacks the institutional infrastructure that supports the integration of care.

The **Primary Health Networks** (PHNs) due to commence by 1 July 2015 should be designed to deliver this institutional infrastructure. Integrated care must be central to the remit of these organisations and they should be tasked and funded to facilitate person-centred care.

PHNs are intended to be primarily engaged as purchasers or commissioners of healthcare services rather than in delivering clinical services themselves, except in instances of market failure. This approach has some similarities with the new Clinical Commissioning Group approach being undertaken in the UK.<sup>35</sup> The 'purchaser/provider' split being introduced under this new model, with PHNs in the role of purchasers of healthcare services on behalf of their community, could allow PHNs to focus on designing service tenders using appropriate performance based contracts and incentive schemes.

## 2.2 Australia's future health workforce

### Health workforce planning

Australians need a health workforce that meets their healthcare needs. This requires robust workforce planning and high-quality training that is supported by accurate health workforce data. This data needs to be able to be considered at national, State and local levels. Previously a cross-jurisdictional perspective on health workforce planning was facilitated by having a standalone health workforce agency, Health Workforce Australia (HWA). The empowering legislation of HWA required it to get its directions from the Ministerial Conference and ensured that the membership of the HWA Board included representatives from the States and Territories. This in turn facilitated cooperation and collaboration between the levels of governments regarding health workforce planning and supported the ability to minimise the influence of sectional interests. The need for this was the key rationale as to why the Productivity Commission, in its 2006 review of the health workforce, proposed the establishment of a standalone 'health workforce improvement' agency.<sup>36</sup>

With the disestablishment of HWA announced in the Federal Budget earlier this year, cross jurisdictional and collaborative approach to workforce planning is at risk. The amalgamation of HWA's core functions into the Commonwealth Department of Health must be supported by a governance structure that ensures the new approach does not lose the strengths of HWA's organisational structure as an independent, stand-alone body with a separate Board and public charter.

As discussed in **Chapter 1**, the Australian healthcare workforce must be trained and supported to provide high quality care to patients with multi-morbidities in an ageing population. For the specialist physician workforce, this means increasing the number of general medicine specialists and better linking their services with general practitioners.

General medicine physicians are trained in person-focused specialist care. They are able to manage multiple health issues affecting people with chronic disease or with complex health issues. There is evidence that, in some cases, patients referred to a number of "single organ centred care teams" would benefit from being treated by a general physician medical team if they suffer from multi-organ system involvement.<sup>37</sup>

General medicine physicians are also invaluable in managing the care for particular populations, such as Aboriginal and Torres Strait Islander people and older people. Geriatricians and paediatricians are acknowledged as 'generalist' specialists.

In rural and remote areas, general medicine specialists and dual-trained specialists – that is, specialists trained in general medicine and a sub-specialty – play a vital role. As these communities do not have the population to support a wide range of sub-specialists, the availability of general medicine specialists, who are able to assess, manage, treat and on-refer when necessary, is crucial to providing good quality and accessible healthcare<sup>38</sup> and can be more cost effective.<sup>39</sup> Without them, many more patients would either go without care or be needlessly transferred to regional hospitals, with all the costs, disruption and hospital overload that is incurred.

### Training the specialist physician workforce of the future

Specialist training greatly benefits from opportunities to train in community-based settings. Training rotations that include this enable aspiring physicians to experience a greater breadth and diversity of clinical practice; including training in rural and remote areas, and in Aboriginal and Torres Strait Islander communities.

As such, we commend the government's on-going support of the **Specialist Training Programme (STP)**. The STP provides the future specialist doctors with opportunities to train - fully supervised - in settings outside the traditional large urban public hospital. These trainees see patients with a wider range of health issues, gain invaluable experience working in multidisciplinary teams (including with primary and community healthcare providers), strengthen communication skills necessary for future inter-professional relationships, and gain a wider understanding of the patient's journey through the health system.

In 2013, 55% of the RACP STP posts rotated through rural and remote areas, and 24% directly targeted Aboriginal and Torres Strait Islander communities. Nearly 62% of RACP STP positions included time in non-hospital settings. RACP trainees have commented that "*No other training position can prepare you for clinical practice outside the hospital like this one*" and "*Great experience that leads to a deeper understanding of Indigenous health issues and providing healthcare in a remote location.*"

The STP is a highly successful program and as such is deserving of ongoing funding commitment that extends beyond the 2017 timeframe confirmed in the last Federal Budget. The RACP supports an assessment of the STP to consider whether the current number of positions it funds is sufficient for our future workforce needs or should be expanded.

There also needs to be greater recognition within the funding systems of the costs of providing **teaching, training and research (TTR)**. International studies have estimated that TTR adds a premium of 8<sup>40</sup> to 15 per cent<sup>41</sup> compared to health services where TTR is not undertaken. The higher costs associated with teaching and training arise from a number of reasons such as:<sup>42</sup>

- Productivity impairments (such as slower diagnosis, delayed discharge, and reduced patient throughput) as a result of teaching clinicians taking time to explain or illustrate procedures;
- Increased ordering of diagnostic tests by trainees due to inexperience;
- Higher intensity of care;
- Costs associated with procuring and maintaining equipment to support teaching and training activities.

TTR in public hospitals is a core business of the healthcare system and, in light of these considerations, needs to be funded consistently and transparently. This is not the current state of affairs according to a literature review undertaken on behalf of IHPA. This found that at present Australian jurisdictions refer to TTR using a wide range of terminology, resulting in different types of TTR being funded across the States and Territories.

There needs to be a consistent approach across jurisdictions, with a national set of guidelines that acknowledge the following key factors:

- The relationship between teaching and clinical care in a public hospital service is complex, involving direct and indirect teaching, learning and supervision. As an IHPA commissioned review found, the provision of patient care and medical education is a 'joint and complementary process that is not straightforward to disentangle'.<sup>43</sup> Appropriate compensation models to support the teaching and training in rural outreach services provided by metropolitan hospitals is also needed.
- Public hospital services may undertake research and training activities which are independent of clinical activity e.g. simulation based training, training for supervisors, meeting with trainees to review their progress towards educational goals, College exam preparation activities, and short courses to develop particular skills e.g. managing the critically ill patient and progress towards specialist certification.
- Appropriate indicators to measure research and training outputs need to be developed in order to increase accountability of the funding in this area.

## Infrastructure and funding models to support the workforce we need

In recent years, the number of general medicine trainees has been steadily increasing. Data from the Medical Training Review Panel (MTRP) shows there was 6 times the number of trainees in a general medicine specialty in 2013 than in 2009. However, we know that some trainees switch to sub-specialty training as there are too few General Medicine specialist positions in many areas, with many hospitals no longer having these roles.

Although this is not a direct Commonwealth government responsibility, the need for more General and Acute Medicine Units and for more General Medicine specialists should be central to the development of future funding policies.

## 2.3 Preventive health

Preventive health measures can have some of the biggest impacts on the health of a society; particularly in addressing lifestyle related chronic illnesses that are rising in incidence in Australia. There is clear, incontrovertible evidence that long-term, sustained and targeted preventive health measures can be highly effective, with many common chronic diseases amenable to measures to bring about behaviour change.

For instance, Australia has an estimated 28 per cent of adults now classified as obese<sup>44</sup>; of significant concern considering the direct relationship between diabetes and obesity. With this number projected to increase still further, effective preventive health strategies to address rising rates of obesity would also be expected to lead to improvements in rates of avoidable hospitalisations for diabetes. There is already clear evidence that sustained and targeted preventive health measures have been highly effective in areas such as tobacco control, road safety and immunisation.<sup>45</sup> According to one estimate, over the lifetime of the 2008 Australian adult population, the opportunity cost savings of disease prevention programs to date have been approximately \$2.3 billion.<sup>46</sup>

**Appendix 3** discusses a case study of the high cost-effectiveness of better designed policies for addressing alcohol-related harms in the community.

The full potential for further preventive health efforts is not being adequately recognised with an average of only 2 per cent of government health dollars allocated to prevention.<sup>47</sup> Among OECD countries, Australia ranked in the lowest third in its share of health expenditure going to preventive health in 2011, with the highest spending country being New Zealand at 7 per cent.<sup>48</sup> Recent Budget decisions, in particular the repeal of the Australian National Preventive Health Agency (ANPHA) and the disbanding of the National Partnership Agreement on Preventive Health, are short-sighted and further reduces the nation's already low investment in preventative health.

To be effective, preventive health requires long term planning and investment. These were core reasons behind the establishment of ANPHA as an independent and arms-length organisation. A recent joint OECD-WHO report found that many of the most efficient prevention strategies are outside the health sector, and that implementation of these strategies requires a coordinated, multi-stakeholder approach<sup>49</sup>. Another challenging aspect of preventive health in Australia is the need to deal with multiple levels of government and associated agencies.

The Australian Government must ensure that an appropriate governance structure is put in place within the Department of Health when ANPHA's functions and budget are incorporated. It is vital that the body charged with developing and delivering the national preventive health agenda does so with a structure that enables and supports widespread engagement and involvement of other key stakeholders, including through independent negotiations with interest groups such as the food industry. This is necessary for the development of strategic priorities based on need, and for initiatives to be effectively adopted and sustained at a local level.

### 3. Recommendations

Australia's healthcare system faces a number of interrelated challenges:

- Demographic trends, notably the ageing of the population, which is already placing increased demands on healthcare services
- An increasing burden of chronic diseases such as diabetes, arthritis, cancers and heart disease
- An increasing share of government budgets being devoted to healthcare
- Continuing barriers to accessible and affordable healthcare for some

The Australian healthcare system needs to implement policies designed to respond to these challenges. Current policies pay insufficient attention to prevention and health promotion, which means that rather than being able to stem the worsening impact of chronic disease we are just responding to it. Meanwhile, the silo approach to delivering health services to many patients – particularly older people and those with multiple chronic diseases – means that many can end up receiving care that is below par, despite individual clinicians' best efforts.

It is clear that further reforms are urgently needed to ensure the future viability of Australia's world class healthcare system. In that light, this submission makes the following recommendations:

#### Integrated care

1. Integrated care must be central to the remit of the new Primary Health Networks, which should be tasked and funded to drive the integration of healthcare services for their defined populations.
2. New models of care must be developed which are centred around patients, designed to support multidisciplinary healthcare teams and support a greater provision of specialist care in community based settings.
3. Alternative healthcare funding models that facilitate and reward integrated care should be developed; in particular those that blend the current fee for service model (whether at the practitioner or hospital level) with alternative approaches such as capitation payments and bundled payments.
4. The adoption of and support for a national framework to underpin a nationally networked, coordinated and consistent system that enables equitable access to specialist medical care with complete geographical coverage across Australia; particularly focused on addressing the current inequities in access for Australia's first peoples.

#### E-health

5. Strategies must be adopted that drive better physician uptake of My eHealth Record and associated communication systems to support improved flows of information across the health system such as those recommended in the recently completed review of the Personally Controlled Electronic Health Records.

#### Health workforce

6. The amalgamation of Health Workforce Australia's core functions into the Commonwealth Department of Health must be supported by a governance structure that ensures the new approach does not lose the strengths of HWA's organisational structure as an independent, stand-alone body with a separate Board and public charter.

### **Specialist training**

7. The Specialist Training Programme (STP), which has been highly successful in increasing the numbers in general medicine training and in providing training in a variety of healthcare settings, should receive long term funding. The STP should also be assessed to consider whether the current number of positions it funds is sufficient for our future workforce needs or whether the number of positions should be expanded.
8. There should be nationally consistent and transparent funding of teaching, training and research (TTR) activities in hospital and in other healthcare settings.
9. Future healthcare funding decisions should take into account the need for more General and Acute Medicine Units and for more General Medicine specialists.

### **Prevention**

10. Higher and well-targeted funding for preventative health and recognition of this important 'upstream' investment is warranted.
11. Commonwealth, State and Territory and local governments need to work together, under a properly coordinated intergovernmental framework, to set nationally consistent rates of taxation for all alcoholic drinks based on alcohol content.
12. The Commonwealth Department of Health, in taking over the functions of the Australian National Preventive Health Agency (ANPHA), should as a priority look at the development and implementation of policies to change the drinking culture in Australia and reduce the current levels of alcohol-related harm.

## Appendix 1: Community based specialist access in Aboriginal and Torres Strait Islander communities

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Many of Australia's first peoples continue to experience poorer health outcomes than non-Indigenous Australians. According to the latest 'Closing the Gap' report figures the life expectancy gap remains close to ten years and does not vary with geographical place of residence.<sup>50</sup>

There is substantial evidence detailing areas where Aboriginal and Torres Strait Islander people experience a greater burden of disease than their non-Indigenous counterparts, and in particular chronic disease. For example, after adjusting for differences in age structure, the rate of diabetes/high sugar levels among Indigenous Australians is 3.3 times the rate for non-Indigenous Australians. In 2006–10, avoidable mortality rates for Indigenous Australians were 3.5 times the non-Indigenous rate.<sup>51</sup> Two-thirds of the gap in death rates between Aboriginal and Torres Strait Islander and non-Indigenous people is contributed by chronic disease.<sup>52</sup>

Despite this clear need for health services, MBS data shows that Aboriginal and Torres Strait Islander people access Medicare-subsidised specialist services at a lower rate compared to non-Indigenous Australians. In 2010-11, Aboriginal and Torres Strait Islander peoples were seeing specialists 178 times less for every 1000 people compared to the non-Indigenous community.<sup>53</sup>

It is clear from a review of the most established specialist access models and the current literature that there are essential elements that contribute towards effective ways of providing specialist medical care access to Aboriginal and Torres Strait Islander people. These include:

- Meaningful community engagement through partnership and leadership;
- The importance of Indigenous health professionals including Aboriginal and Torres Strait Islander Health Workers;
- Clear understanding of the population and individual health needs of Aboriginal and Torres Strait Islander peoples in any given setting;
- The need for multi-disciplinary teams, and care coordination across settings;
- The benefit of holistic approaches to service delivery, integrated with the delivery of specialist medical care in a culturally safe manner;
- Patient-centred care with tailored supports including transport;
- Linked up, coordinated and strategic information systems;
- A culturally competent workforce; and
- Sustainable funding sources

The RACP is working with a range of Indigenous health organisations and experts to develop a national framework for consideration for the Implementation Plan for the National Aboriginal and Torres Strait Islander Health Plan. The framework would be a principles-based guide that:

- informs and supports the equitable provision of high-quality, effective, accessible and affordable specialist medical care for all Aboriginal and Torres Strait Islander peoples;
- supports the development of community-led models of care, designed to meet the community's needs;
- highlights the core components of best practice models that facilitate high-quality, effective, accessible, affordable and culturally safe specialist medical care;
- advocates for and supports the development of a national, networked system that provides complete geographical coverage across Australia.

## Appendix 2: Alternatives to the FFS model

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The establishment of Primary Health Networks (PHNs) provide an opportunity for new funding and compensation models to be developed and trialled. They need to incentivise healthcare professionals to work together in multidisciplinary teams to provide care organised around the person's needs, and enable more services to be provided in community based setting. Staying with a purely FFS-based payment system will not deliver this.

There are numerous examples where alternatives to the FFS model are being trialled around the world, and these are worthy of investigation. The two main approaches fall into the categories of capitation payments and episode based payments (which are essentially a form of bundled pricing of services as described in Chapter 2).

Capitation payments involve providing practitioners (usually general practitioners) with a fixed amount of funding per patient to cover some (partial capitation) or all (full capitation) of the healthcare needs of a specified group of patients for a specified period of time (usually one year). Under this approach, patients have their needs assessed when they enter the system and receive the care they need from a multidisciplinary team<sup>54</sup>. Because payments are not linked to the volume of care provided, this removes the perverse incentive to over-service and encourages providers to focus more on preventing deterioration of people's conditions, reduce avoidable or unnecessary hospitalisations and reduce duplication and wastage. In brief, they are incentivised to keep people as well as possible.

In Europe, capitation payments are used to compensate primary care physicians (i.e. individual practitioners) though they are rarely used to compensate institutional providers such as hospitals. One exception is in Alzira, Spain where hospital and primary care services have been operating under a capitation budget covering hospital and primary care since 2003. The cost per patient is 80 per cent less than in districts with a traditional model of provision and reimbursement; however there has been no formal evaluation to date of the service's efficiency.<sup>55</sup>

A jurisdiction where capitation payments to institutional providers have been most developed is the US under Kaiser Permanente integrated managed care consortium. The Accountable Care Organizations set up by the Affordable Care Act 2010 may further develop this approach.

The NHS Year of Care Funding model in the UK provides an annual budget to cover all the care episodes a patient with long term conditions may need over a period of 12 months. This model fits a risk-adjusted capitation approach.<sup>56</sup> The care model requires implementation of three key drivers - risk stratification of people with long-term conditions (LTC), integrated care teams involving health and social care with one identified lead caring holistically for a given person, and maximising the number of people who can co-manage or self-care for their conditions.<sup>57</sup>

Theoretically, capitation payments can provide a strong incentive for care coordination, primary and secondary prevention (to reduce expensive acute events and hospital admissions) and improvements in patient safety (to reduce the cost associated with complications and adverse outcomes following invasive procedures). On the other hand, one disadvantage is that it places a far greater financial risk on service providers, for instance if their costs exceed the payment per head for a patient.

Episode-based payment can be seen as intermediate between FFS and full capitation<sup>58</sup>. Episode-based payments involve the payment of a fixed amount intended to cover the costs of providing some or all services delivered to a patient for a complete episode of care made to two or more

providers. It aims to reward the use of a pathway of care for an individual across providers, thus encouraging more efficient use of expensive services and better coordinating care.

This approach has been widely adopted in the Netherlands which in 2010 introduced an episode-based payment system for diabetes care, chronic obstructive pulmonary disease care and vascular risk management. An initial evaluation found improvements in the organisation and coordination of care and better collaboration among health care providers and adherence to care protocols. Less positively, it found large price variations that were not fully explained by differences in the amount of care provided, and a significant administrative burden associated with information and communication technology systems<sup>59</sup>.

### Appendix 3: The cost effectiveness of better alcohol policy as preventive health strategy

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There is evidence that the taxation revenue from sales of alcohol is far less than the costs of alcohol-related harms. Australia is therefore in a position where tax-payers are subsidising drinkers. Alcohol tax revenues are approximately \$8.6 billion a year<sup>60</sup> compared to the \$15 billion in social costs<sup>61</sup> that have been estimated from alcohol related harm. It should be noted that this estimate may not take account of all the costs to third parties who are not drinkers. There is evidence that over half the alcohol-related harms are to people other than the person drinking.

While the Commonwealth reaps most of this revenue, through the excise on beer and spirits and the Wine Equalisation Tax (one exception being the GST, some of which is redistributed to the States), the States have to bear much of the costs of the harms. This is through expenditure on hospital treatments – both for long-term conditions such as liver cirrhosis and cancers, and treating injuries in emergency departments and fracture wards; treating the harms caused to others, for example the costs of social services addressing domestic violence; and the policing and justice system costs.

As an example the NSW government's share of these costs has been estimated at \$1.029 billion annually while total social costs to NSW as a whole are estimated at \$3.87 billion.<sup>62</sup> By contrast, less than \$3 billion of the \$8.6 billion collected in 2010 from alcohol related revenue by the Commonwealth was through the GST, and only a portion of this \$3 billion would be returned to the States.<sup>63</sup>

It is clear therefore that NSW's share of this GST revenue would be far less than the amount the NSW government spends on treating alcohol-related harms, as well as significantly less than the amount of harm suffered by the community.

A recent Australian study has estimated that an additional \$1.3 billion in revenue would be raised by even the relatively minimalist measure of replacing the misnamed Wine Equalisation Tax (which effectively places a lower tax burden on wine compared to other alcohol products) with a volumetric excise rate equal to the current excise tax rate for low-strength beer sold offsite, while also leading to net savings in lifetime healthcare costs for the population of \$820 million.<sup>64</sup>

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- <sup>1</sup> Australian Government, Treasury 2010, *Australia to 2050: Future challenges*.
- <sup>2</sup> Productivity Commission 2013, *An Ageing Australia: Preparing for the Future*, Research Paper, Canberra.
- <sup>3</sup> Productivity Commission 2013, *An Ageing Australia: Preparing For the Future*, Research Paper, Canberra.
- <sup>4</sup> Australian Institute of Health and Welfare 2012, *Australia's Health 2012*.
- <sup>5</sup> ABS 2013, *Australian Health Survey: updated results, 2011–2012*, ABS cat. no. 4364.0.55.003.
- <sup>6</sup> Australia's Health 2014
- <sup>7</sup> Australian Institute of Health and Welfare 2008, *Projection of Australian health care expenditure by disease, 2003 to 2033*.
- <sup>8</sup> Australian Institute of Health and Welfare 2008, *Projection of Australian health care expenditure by disease, 2003 to 2033*.
- <sup>9</sup> National Health Performance Authority 2013, 'Overweight and obesity rates across Australia, 2011–12'.
- <sup>10</sup> Productivity Commission 2013, *An Ageing Australia: Preparing For the Future*, Research Paper, Canberra.
- <sup>11</sup> Australian Institute of Health and Welfare 2014, *Australia's Health*.
- <sup>12</sup> Senate Community Affairs References Committee 2014, 'Out-of-pocket costs in Australian healthcare'.
- <sup>13</sup> Senate Community Affairs References Committee 2014, 'Out-of-pocket costs in Australian healthcare'.
- <sup>14</sup> Senate Community Affairs References Committee 2014, 'Out-of-pocket costs in Australian healthcare'.
- <sup>15</sup> Associate Professor Brian Oowler, Committee Hansard, 29 July 2014, p. 26.
- <sup>16</sup> National Health and Hospitals Reform Commission 2009, *A Healthier Future For All Australians*, Chapter 1.
- <sup>17</sup> Armitage, G. D., Suter, E., Oelke, N. D., & Adair, C. E. (2009). Health systems integration: State of the evidence. *Int J Integr Care*, 9, e82
- <sup>18</sup> Australian Government Department of Health and Ageing 2009, 'Primary health care reform in Australia', Report to support Australia's first National Primary Health Care Strategy. Canberra.
- <sup>19</sup> Australian Commission on Safety and Quality in Health Care 2011, 'Patient-centred care: Improving quality and safety through partnerships with patients and consumers', ACSQHC, Sydney.
- <sup>20</sup> WHO 2007, *People-centred health care: A policy framework*.
- <sup>21</sup> WHO Western Pacific Region website on 'What is people-centred health care?', [http://www.wpro.who.int/health\\_services/people\\_at\\_the\\_centre\\_of\\_care/definition/en](http://www.wpro.who.int/health_services/people_at_the_centre_of_care/definition/en)
- <sup>22</sup> Jeon, H., Jowsey, T., Yen, L., Glasgow, N., Essue, B., Kljakovic, M., et al. 2010, 'Achieving a balanced life in the face of chronic illness', *Aust J Prim Health*, 16, 66-74, [http://www.menzieshealthpolicy.edu.au/other\\_tops/pdfs\\_research/ajphbli.pdf](http://www.menzieshealthpolicy.edu.au/other_tops/pdfs_research/ajphbli.pdf)
- <sup>23</sup> Conversation with RACP Fellow.
- <sup>24</sup> Presentation by Dr Martin McShane, 'Building the house of care'.
- <sup>25</sup> National Health Performance Authority 2013, 'Healthy Communities: Selected potentially avoidable hospitalisations in 2011–12'.
- <sup>26</sup> Tieman, J. J., Mitchell, J., Shelby-James, T. M., Currow, D., Fazekas, B., O'Doherty, L., et al. 2006, 'Integration, coordination and multidisciplinary approaches in primary care: A systematic investigation of the literature', Canberra: Australian Primary Health Care Research Institute, Flinders University Department of Palliative and Support Services., <http://www.anu.edu.au/aphcri/Domain/MultidisciplinaryTeams/index.php>
- <sup>27</sup> McDonald, K. M., Sundaram, V., Bravata, D. M., Lewis, R., Lin, N., Kraft, S. A., et al. 2007, 'Closing the quality gap: A critical analysis of quality improvement strategies', Rockville, MD: Agency for Healthcare Research and Quality, <http://www.ahrq.gov/clinic/tp/caregapt.htm>
- <sup>28</sup> Future Hospital Commission 2013, 'Future hospital: Caring for medical patients'.
- <sup>29</sup> Bywood PT, Jackson-Bowers E, Muecke S. 2011, 'Initiatives to integrate primary and acute health care, including ambulatory care services', PHC RIS Policy Issue Review. Adelaide: Primary Health Care Research & Information Service
- <sup>30</sup> Powell Davies, G., Harris, M., Perkins, D., Roland, M., Williams, A., Larsen, K., et al. 2006, 'Coordination of care within primary health care and with other sectors: A systematic review', Canberra: Research Centre for Primary Health Care and Equity, The University Of New South Wales, University Of Manchester, <http://www.anu.edu.au/aphcri/Domain/MultidisciplinaryTeams/index.php>
- <sup>31</sup> Protti, D. 2009, 'Integrated care needs integrated information management and technology', *Healthc Q*, 13 Spec No, 24-29, [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=20057245](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20057245)
- <sup>32</sup> 'Review of the Personally Controlled Electronic Health Record', December 2013.

- <sup>33</sup> Future Hospital Commission 2013, 'Future hospital: Caring for medical patients'
- <sup>34</sup> IHPA 2014, 'Consultation paper on the Pricing Framework for Australian Public Hospital Services 2015-16'.  
<http://www.patient.co.uk/doctor/clinical-commissioning-groups-ccgs>
- <sup>35</sup> Productivity Commission 2005, Australia's Health Workforce, Research Report, Canberra at p. 62
- <sup>36</sup> Parekh V, Saint S, Furney S, et al. What effect does impatient subspecialty and experience have on clinical outcomes and resource utilisation on a general medicine service? *J Gen Intern Med* 2004; 19: 395-401
- <sup>37</sup> Pruessner HT, Hensel WA, Rasco TL. The scientific basis of generalist medicine. *Acad Med* 1992; 67: 232-235.
- <sup>38</sup> O'Sullivan C, Brady S. Innovations - General physician outreach clinics for remote communities. *IMSANZ Newsletter* April 2005: 13-15
- <sup>39</sup> Brewerton and Associates (2011), 'Teaching, Training and Research Cost Driver Identification'. Report prepared for Department of Health Victoria
- <sup>40</sup> Linna, M. and Häkkinen, U. (2006). 'Reimbursing for the costs of teaching and research in Finnish Hospitals: a stochastic frontier analysis', the *International Journal of Health care, Finance and Economics*, March 2006; 6(1): 83-97; The Lewin Group (2005). 'Comparing Hospital Costs: Adjusting for Differences in Teaching Status and Other Health service Characteristics', report prepared for Bridges to Excellence.
- <sup>41</sup> Kane, N. and Siegrist, R. (2002). 'Understanding Rising Hospital Inpatient Costs: Key Components of Cost and the Impact of Poor Quality'; Bendigo Health Care Group (2003). 'Preliminary Cost Analysis of the Impact of the Bendigo Regional Clinical School on Bendigo Health Care Group'; Mauro, M., Cardamone, E. et. al. (date unknown). 'What do teaching and research cost in teaching hospitals? A survey from Italy'
- <sup>42</sup> Paxton Partners 2013, 'Define teaching, training and research and identify associated cost drivers for ABF purposes', Literature review
- <sup>43</sup> National Health Performance Authority 2013, 'Overweight and obesity rates across Australia, 2011-12'
- <sup>44</sup> Applied Economics 2003, 'Returns on Investment in Public Health: An Epidemiological and Economic Analysis', Report prepared for Commonwealth Department of Health and Aged Care.
- <sup>45</sup> Australian Medicare Local Alliance response to the Australian Government's National Commission of Audit, 26 November 2013.
- <sup>46</sup> Australian National Preventive Health Agency (ANPHA). State of Preventive Health 2013. Report to the Australian Government Minister for Health. Canberra; ANPHA, 2013
- <sup>47</sup> OECD 2013. OECD statistics. Paris: OECD. <[www.stats.oecd.org](http://www.stats.oecd.org)>
- <sup>48</sup> OECD 2014, 'Improving lifestyles, tackling obesity: The health and economic impact of prevention strategies', OECD Health Working Papers No. 48. Available from: <http://www.oecd.org/health/health-systems/oecdhealthworkingpaper48improvinglifestylestacklingobesitythehealthandeconomicimpactofpreventionstrategies.htm>.
- <sup>49</sup> *Closing the Gap: Prime Minister's Report 2014*.
- <sup>50</sup> Australian Institute of Health and Welfare, *Australia's Health 2014*.
- <sup>51</sup> AHMAC (Australian Health Ministers' Advisory Council) 2012, *Aboriginal and Torres Strait Islander Health Performance Framework 2012 Report*, Canberra: AHMAC
- <sup>52</sup> Aboriginal and Torres Strait Islander Health Performance Framework (2012): Tier 3 - [www.aihw.gov.au](http://www.aihw.gov.au)
- <sup>53</sup> Whelan EM and Feder J 2009, *Payment Reform to Improve Health Care: Ways to move forward*, Washington, DC: Center for American Progress
- <sup>54</sup> Bes M 2009, 'Spanish health district tests a new public-private mix', *Bulletin of the World Health Organization* 87(12), 892-893
- <sup>55</sup> UK Department of Health 2012, 'QIPP Long Term Conditions: Supporting the local implementation of the Year of Care Funding Model for people with long-term conditions'.
- <sup>56</sup> UK Department of Health 2012, 'QIPP Long Term Conditions: Supporting the local implementation of the Year of Care Funding Model for people with long-term conditions'.
- <sup>57</sup> Crosson FJ and Guterman S 2009, 'How can Medicare Lead Delivery System Reform?', The Commonwealth Fund.
- <sup>58</sup> de Bakker D, Struijs J, Baan CA, Raams J, de Wildt J-E, Vrijhoef HJM and Schut FT 2012, 'Early results from adoption of bundled payment for diabetes care in the Netherlands show improvement in care coordination', *Health Affairs* 31(2), 426-33
- <sup>59</sup> The exact figure is around \$8.6 billion a year based on 2010 data as estimated by Doran, C. et al 2013, 'Estimated impacts of alternative Australian alcohol taxation structures on consumption, public health and government revenues', *Medical Journal of Australia* 199(9).
- <sup>60</sup>

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<sup>61</sup> This estimate from Collins, D. and H. Lapsley 2008, 'The avoidable costs of alcohol abuse in Australia and the potential benefits of effective policies to reduce the social costs of alcohol', DoHA Monograph Series No. 70 is based on 2008 data and therefore the cost adjusted to 2010 figures may well be higher.

<sup>62</sup> NSW Auditor-General's Report 2013, 'Cost of alcohol abuse to the NSW government'.

<sup>63</sup> Appendix to: Doran CM, Byrnes JM, Cobiac LJ, et al. 'Estimated impacts of alternative Australian alcohol taxation structures on consumption, public health and government revenues', *Med J Aust* 2013; 199: 619-622. doi: 10.5694/mja13.10605

<sup>64</sup> Doran CM, Byrnes JM, Cobiac LJ, et al., 'Estimated impacts of alternative Australian alcohol taxation structures on consumption, public health and government revenues', *Med J Aust* 2013; 199: 619-622. doi: 10.5694/mja13.10605