A Model for Australian General Practice: The Australian Person-Centred Medical Home

A sustainable and scalable funding model to improve care for people with chronic and complex care needs. How can we make it happen?

Discussion paper | November 2015
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Executive Summary

This paper proposes a sustainable model of General Practice and primary health care at a time of significant primary health care reform and change.

Within the context of the creation of Primary Health Networks (PHNs), the release of the National Review of Mental Health Programmes and Services report\(^1\) and the Reform of the Federation, and the establishment of Medicare Benefits Schedule (MBS) Review Taskforce and the Primary Health Care Advisory Group (PHCAG), this model will help ensure optimal future outcomes for patients with chronic conditions and complex care needs. The model aims to embed the concept of a Patient-Centred Medical Home (PCMH) within primary care that also incorporates a multimodal payment system for General Practice which aligns incentives with outcome-focused care. To ensure the model is evidence-based, sustainable and scalable, the paper recommends a pilot programme which will focus, in particular, on testing the efficacy of the design of incentives to achieve the expected benefits.

To this end, the paper’s strength and novelty lies in analysing and addressing the practicalities of implementation rather than simply identifying the issues which have already been comprehensively assessed in the PHCAG’s Discussion Paper, published in August 2015\(^2\).

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This paper was developed in collaboration between WentWest, EY and the Menzies Centre for Health Policy; it is based on a desktop and literature scan, consultations with General Practitioners (GPs) and other stakeholders, and data analysis and modelling.

The case for change

A different model for General Practice and primary health care is needed to address the growing pressures on the overall health care system as well as on General Practice. A new model is also required to help ensure the needs of those with chronic and complex conditions and the broader population are met. Key reasons for developing the model include:

- The growth in expenditure on health care and the demand for health services (as a consequence of increased utilisation, and an ageing and growing population with increased prevalence of chronic conditions) is exacerbated by the current fee for service (FFS) model which results in:
  - Unmanaged growth in volume and the potential duplication of services
  - Growing financial and professional challenges for GPs, particularly given the inflexibility of the current business model, which is made more complex by the depletion and changing mix of workforce
  - Patients experiencing disconnected care and an increasing level of co-payments.

- There is undefined variation in the quality and type of care delivered through General Practice and primary care, and we lack a mechanism to reward providers for delivering high-quality care.

- Given the heterogeneous nature of General Practice in Australia, little is known about the variety of the operating cost models that underlie General Practice and how to best support General Practice to achieve optimal patient outcomes.

To understand the impact of the current system on the future sustainability of General Practice, this paper used an illustrative General Practice\(^3\) to model three potential scenarios. In each case, it was estimated that operating costs in the future will exceed funding received from the government:

- **Business as usual:** where the current model of care and payment system remains with a freeze on MBS rebates, General Practice operating costs will exceed funding received from the Commonwealth after three and a half years.

- **Scenario 1:** General Practices increase the volume of patient encounters by 20%; General Practice operating costs will exceed funding received from the Commonwealth after five years.

- **Scenario 2:** the number of General Practices is reduced by 20%; General Practice operating costs will exceed funding received from the Commonwealth after six years.

Retaining the current model of care and payment system poses risks to the ability of the Australian population to access quality care.

All three scenarios have potentially adverse outcomes. Business as usual and Scenario 1 will result in higher volumes of consultations with less focus on preventive care (as well as potentially more referrals to specialists and the tertiary sector). In Scenario 2, there will be less access and availability of care for patients affected by the likely closure of local General Practices. It is evident that retaining the current model of care and payment system poses risks to the ability of the Australian population to access quality primary care.

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3 Based on a “typical” practice as described in Section 2
Aligning incentives and allowing flexibility to enable better outcomes

Responding to this case for change, this paper proposes a new multimodal payment system to enable and support changes to the model of care delivery. For the first time, this paper demonstrates how incentives can be better aligned to enable better health care outcomes. This involves four types of payments:

- **FFS payments** – would continue for preventive care (for example the provision of immunisations), incident care and the care of the unenrolled population.
- **Patient complexity payments** – will allow care delivery by a team of health care professionals that is cost-effective and appropriate to the patient’s needs, while also recognising variation in needs based on factors such as socio-economic status, health literacy, number and severity of chronic diseases, and cultural and linguistic background.
- **Performance-based payments** – will recognise the quality and equity of care provided.
- **Capability and capacity-building payments** – will be used to support General Practice in the implementation of the model. Potential future uses of these funds include identifying opportunities and methods for General Practice to implement the proposed care model, developing and assisting the use of IT systems, and the provision of education and training for health professionals.

The Australian Patient-Centred Medical Home (APCMH) model

In recognition of PCMHs being an optimal model of care for patients with chronic diseases and complex care needs, this paper proposes an APCMH model of care (patient-centred, doctor guided, cost efficient and longitudinal care), customised to the Australian context that is combined with the multimodal payment system described above. This model benefits patients, General Practice and the overall health care system in a range of ways:

- **For patients** – The APCMH model routinely involves patients in decision making, increases the use of evidence-based medicine and increases collaboration between health care providers, resulting in better care. This will be enhanced by a payment system where GPs have discretion over the spending of funds. This will remove some of the limitations associated with the MBS, such as the annual cap on the number of subsidised allied health consultations. The flexibility of funding will also provide increased opportunities for care to be delivered in a culturally and linguistically appropriate way. Finally, impediments to accessing referred services, including wait times and finding a health care professional, will be overcome through taking stock of the capacity of providers in the region and commissioning required services by the local PHN.

This paper demonstrates how performance-based payments can be better aligned to enable better health care outcomes.

- **For General Practice** – The APCMH model, and its supporting payment system, will improve the financial sustainability of General Practice. Shifting away from FFS payments and towards block funding will assist providers by providing a more consistent funding stream that reflects the complexity of care provided. More flexible funding will enable innovation in staffing structures, encouraging multidisciplinary care and increasing staff satisfaction. The potential use of performance-based payments will reward providers for the quality of care they provide.
For the health care system – Improvements to the payment system will create multiple efficiencies including: stability and control over future costs through the use of block funding for people with chronic disease and complex care needs; decreased system-wide costs by transferring the focus of care from more expensive secondary and tertiary care to primary care; and improvements to the overall quality and equity of health care through accountability and monitoring.

PHNs play a key role in the APCMH model by:
- commissioning services to meet identified service gaps;
- coordinating teams of health professionals to support clusters of General Practices;
- developing the capacity of health care providers (for example, developing and implementing supportive IT systems);
- monitoring patient outcomes and quality of care and rewarding high-quality care via performance-based payments;
- enabling collaboration between primary care and Local Health Network(s) to better plan and deliver care in the region; and liaising with stakeholders.

Implementing and testing the new model

The APCMH model and the supporting multimodal payment system require development and testing prior to extensive implementation. Because the APCMH model has not been fully trialled in Australia, and has elements that have not been tested, a pilot programme would be a good first step to assess its benefits, and its applicability to the whole health care system. Piloting the model will improve understanding of gaps in knowledge, particularly, the operating costs of General Practice, how to motivate patients and GPs to actively be involved in the pilot, and what outcome measures and incentives are needed to support the model.

Recent advances in behavioural modelling provide a number of options for testing the impacts of a range of incentive structures. Techniques such as microsimulation can predict the behaviour of individuals and groups as they interact with the health care system. This knowledge can be used to strengthen the design of the APCHM model and the payment system prior to starting a pilot programme, and again to assist in scaling the model up to Australia wide implementation.

The pilot design will need to address patient eligibility and involvement, including how to provide access to care under the APCMH model and patient involvement in care decisions, as well as broader governance and funding issues. PHNs are appropriate bodies to pilot the model, as well as implement the model if its benefits are proved.

Through piloting the APCMH model at an established PHN, the pilot will be able to assess what features are required to support implementation and ongoing management on a larger scale. WentWest has been leading and supporting General Practice and primary care in Western Sydney for well over ten years. They have extensive experience applicable to running the pilot programme – including the areas of care commissioning, integrated care, building capability and capacity, providing training, monitoring and improving quality in service delivery, and delivering services to a diverse and disadvantaged population.

The pilot programme will also test the economic sustainability of the APCMH model. Measurement of the economic sustainability of the model will be based on funding level, the costs of the pilot and anticipated future benefits. Anticipated future benefits include savings through reductions in potentially preventable hospital admissions, reductions in GP-type presentations to emergency, reductions in the use of excess or duplicated pathology and diagnostic imaging services, and broader economic benefits from more holistic and integrated patient-centred care.

Although it is anticipated that an initial investment of time and funds will be required, the potential long term benefits of the APCMH model are exciting. By providing the right support and incentives for General Practices to operate as an APCMH, flow-on benefits can be expected to be seen in other parts of the health care system – including improved population health, reductions in complexity and duration of hospitalisations, and decreased complications of chronic diseases. Introducing performance-based payments into the Australian health care system has other potential important benefits. This paper’s proposed pilot of an APCMH model offers an innovative approach to incentive design and measurement that will provide evidence whether or not to support this approach.
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Glossary

AIHW  Australian Institute of Health and Welfare
APCMH Australian Patient-Centred Medical Home
DI  Diagnostic Imaging
ED Emergency Department
FFS Fee for service
FTE Full Time Equivalent
GP General Practitioner
GPII General Practice Immunisation Incentives
GPMP General Practitioner Management Plan
HEDIS Health care Effectiveness Data and Information Set
HOMD HealthOne Mount Druitt
ICT Information and Communication Technology
LHD Local Health District
LHN Local Health Network
LinkedEHR Linked Electronic Health Record
MBS Medical Benefits Schedule
NHPA National Health Performance Authority
NPHCSF National Primary Health Care Strategic Framework
NPV Net present value
NSW New South Wales
PCEHR Personally Controlled Electronic Health Record
PCMH Patient-Centred Medical Home
Pen CAT Pen Clinical Assessment Tool
PHN Primary Health Networks
PIP Practice Incentive Program
PREMs Patient reported experience measures
PROMs Patient reported outcome measures
SIPs Service Incentive Payments
VR GP Vocationally recognised General Practitioner
1. Background and context

Piloting this model has great potential to improve outcomes for patients, particularly those with chronic and complex health conditions; contribute to the sustainability of General Practice; and improve primary health care. To not take this opportunity would be a terrible waste, considering the current and future pressures on the Australian health care system.

1.1 Introduction

“A model for Australian General Practice: the Australian Person-Centred Medical Home” proposes a sustainable and scalable funding model for patient-centred care for people with chronic and complex care needs, and asks how we can make it happen. The Australian Patient-Centred Medical Home (APCMH) model aims to ensure that primary health care delivers improved outcomes and maintains equity of access within the context of challenges to the current model of General Practice, as well as to the health care system in general.

As described in the National Primary Health Care Strategic Framework (NPHCSF), strong primary health care results in lower rates of hospitalisation, fewer health inequalities and better health outcomes including lower mortality. Australia is succeeding in many areas of primary care, although the NPHCSF acknowledges there are challenges inherent in the Australian system. These challenges include fragmentation and complexity in funding arrangements, poor coordination of service planning and delivery, and system inadequacies. Primary care, including General Practice, needs to provide services that meet the needs of the local community; make use of the best available evidence base; make the best use of the workforce, infrastructure and technologies; and support continuous improvement in performance, safety and quality.

This paper proposes a sustainable model of General Practice and primary health care to assist governments and funders of health care services meet existing and future health care challenges. We recommend a pilot programme to test the benefits of the APCMH model. The strength and novelty of this paper lies in analysing implementation issues rather than simply identifying problems. Through our analysis, it can be seen that the primary health system is failing General Practice financially and professionally. There are also opportunities for improving primary care in terms of equity of both access by and health outcomes achieved for the Australian population. The APCMH model is one proposed option to improve the functioning of primary health care for the benefit of patients and providers.

1.2 Objectives and principles

At a time of uncertainty in the primary health care sector, this paper provides insight and leadership by proposing what a sustainable model of General Practice and primary health care might look like, and how incentives can be aligned to produce consistent, high-quality patient outcomes across the population.

The objectives of the paper are to:

- Provide leadership on how the future of good-quality General Practice and primary health care might be defined and progressively achieved
- Build upon the experience and learnings of WentWest and GPs within the region regarding new and evidence-informed approaches
- Assist governments and funders of health care services to meet existing and future health care challenges in a sustainable way
- Define the role of the Primary Health Network (PHN) to support primary care providers to transition to and deliver the proposed APCMH model
- Describe the pilot design to test the APCMH model and determine its appropriateness for large-scale implementation in Australia.

The underlying guiding principles for the development of the APCMH model are:

- Patient care is enhanced as a consequence of the model being implemented
- The principles of Medicare – simplicity, affordability, universality and efficiency – are maintained
- Recognition that General Practices are heterogeneous, and diverse operating models exist
- The sustainability of General Practice in terms of their financial viability is improved through trialling innovating operating models
- The projected benefits of proposed changes are clearly articulated and evidence-based.

In meeting the above objectives and principles, this discussion paper has also addressed each of the four key themes being considered by the Primary Health Care Advisory Group, as set out in their August 2015 Discussion Paper.6

1.3 Approach
This paper has been developed in collaboration between WentWest, EY and the Menzies Centre for Health Policy. A project control group was set up to provide support to the project and for consultation and testing of the model, as well as validating findings at key points in the project. The project control group comprised of a core group of GPs and key stakeholders from the region, as well as members of the Board and executive team from WentWest.

In order to satisfy the objectives and principles of this project, the approach taken included:

- A desktop review of information and documentation from WentWest
- A literature scan
- Stakeholder consultations
- Data analysis and modelling
- The development of a proposed model of care supported by a different payment system
- Testing and refinement of findings, the APCMH model and financial analysis with the project control group
- The development of this paper.

1.4 Consultations
Professionals who had previously attended a PCMH workshop run by WentWest were given the opportunity to be involved in the development of this paper. One-on-one consultations were undertaken with 17 leading General Practitioners and other stakeholders via telephone. A list of General Practitioners and other stakeholders consulted are outlined in Appendix A. Each consultation lasted from 30–60 minutes. A set of questions were provided prior to each consultation. The themes which emerged from the consultations were:

- What is working well in primary care delivery
- Challenges and risks in instigating change
- Future models of care to be evaluated
- The factors that facilitate care models to be successfully incorporated into the existing health care system
- Potential alternate payment models

Further consultations were undertaken to collect financial data from eight General Practices.

6 Theme 1: Effective and appropriate patient care; Theme 2: Increased use of technology; Theme 3: How do we know we are achieving outcomes?; Theme 4: How do we establish suitable payment mechanisms to support a better primary health care system?
2. The case for change

A change to General Practice and primary health care needs to be considered as:

- The expenditure on and demands for health services is increasing in an environment where resources are constrained
- The current payment system may not be encouraging high-quality continuous care for patients
- There are low levels of patient engagement in health care by international standards
- The current payment system and policy environment mean General Practice will be financially unsustainable in the future.

These considerations are expanded upon further in the discussions below.

2.1 Increased expenditure and demand for health services

To provide universal access to health care in Australia, the Commonwealth Government has funded Medicare since 1954. Although the wealth of the nation is increasing, so too is the level of expenditure on health care and the demand for health services; this affects the ability of governments to fund health care. Subsequently there is pressure to create more cost-effective models that provide universal access to services while delivering high-quality health care. Workforce depletion will also increase the pressure on the health care system in the future.

2.1.1 Rising expenditure on health care

Will governments have sufficient resources to continue to fund health care to the same extent in the future? The increasing costs of the health care system have called this into question. The average annual growth rate in health expenditure from 2002–03 to 2012–13 was 5.1%; and the average annual growth rate for expenditure by the Australian Government was 4.4%; it was 5.6% for state and local governments over the same period. This growth, compared to the average annual growth rate of GDP of 3.0%, highlights the ongoing concern over the sustainability of government expenditure on health care.

Hospitals in Australia are funded by the Australian government (35.5%); state, territory and local governments (43.1%); insurers (16.4%); and individuals (5.0%). Between 2002–03 and 2012–13, all funders increased their expenditure on hospitals. The annual average growth rate for the Australian Government was 3.2%; for state, territory and local governments it was 6.0%; for insurers 5.1%, and for individuals 16.2%. For certain diagnoses, the cost of providing care in hospitals is greater than the cost of providing care of the same quality in the community. By increasing the level of preventive care delivered, and providing more support to manage patients in the community, the growth in hospital expenditure can be slowed or even reversed.

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Primary health care is predominantly funded by the Australian Government (in most part through the Medical Benefits Schedule (MBS) and the Pharmaceutical Benefits Scheme), and by private households through co-payments. From 2002–03 to 2012–13, the per person average annual growth rate in primary health care expenditure was 3.6% for the Australian Government, and 4.6% for private households.\(^{12}\) By freezing MBS rebates, the Australian Government is taking steps to contain this growth in this expenditure but in doing so, it has potentially called into question the ongoing financial viability of General Practice. Households will also reach a point where they need to constrain their expenditure on primary health care. The impacts will be highest for those who are most socio-economically disadvantaged. This disproportionate impact is already being seen: 5.2% of the people experiencing the highest level of socio economic disadvantage who needed to see a GP at least once delay or do not see a GP due to cost; this compares to 4.4% of the most socio economically advantaged population.\(^{13}\) If the costs of health care to individuals increases further, people with lower incomes will reduce their use of services to a greater extent than those with higher incomes.\(^{14,15}\)

2.1.2 Increasing demands on health services

As the health needs of the Australian population change and care options improve, primary health care services and the way services are delivered need to evolve. By 2010, non-communicable (chronic) diseases caused 85% of the disease burden in Australia.\(^{16}\) Further, the patients requiring treatment are increasingly complex. In 2011–12, 78% of adults reported having at least one chronic health condition and at least 94% of adults reported having at least one risk factor for chronic disease.\(^{17}\) As noted by the National Health Performance Authority (NHPA), the Australian population who are visiting a GP more than 12 times annually are quite unwell and have complex and chronic health conditions.\(^{18}\) Accordingly, it is this same group of patients who use the bulk of health resources. While other countries are making adjustments to care delivery, payment systems for General Practice and staffing structures in Australia continue with traditional models. Care delivery models supported by the FFS payment system do not have sufficient flexibility to allow innovation in addressing the increased burden of chronic diseases and range of treatment options available.


\(^{17}\) Australian Bureau of Statistics, 2014. Australian Health Survey, 2011-12. Cat. no 4363.0. Canberra: ABS. Table 1.3

\(^{18}\) National Health Performance Authority 2015, Healthy Communities: Frequent GP attenders and their use of health services in 2012–13.
2.1.3 Workforce depletion and the changing mix of workforce

Although the number of full-time equivalent (FTE) GPs per 100,000 population has remained relatively constant since 2008, it is likely that the number of GPs available to work will decrease in the coming years. There are multiple reasons for this including:

- A high proportion of the GP workforce approaching retirement (the average age of GPs was 50.8 in 2012)
- An increasing preference to work fewer hours, especially among those GPs entering the workforce
- The low number of graduates choosing a career in General Practice, potentially because of concerns over job satisfaction related to not having sufficient opportunities to use their clinical knowledge and work collaboratively with other health care providers
- The increasing pressure on GP wages resulting from the ongoing MBS rebate freeze makes other specialties where bulk-billing is not expected, or other professions, more financially appealing
- Lack of certainty surrounding government policy decisions, resulting in an uncertain future environment for General Practice and primary health care.

Unless these factors change, it is likely there will be fewer GPs available to deliver primary care in the future. Should there be fewer GPs, the workforce delivering primary health care and the responsibilities held by each profession must be transformed for the levels of health care provision to be maintained for a growing population. Although it is agreed that some tasks currently being performed by GPs could be performed equally well by other staff, this transition will require a significant investment of time and resources to ensure all staff consistently complete tasks to required standards.

2.2 Negative impacts of the current payment system on health care

In isolation, FFS payment systems incentivise increased volumes of care. The lack of outcome measures means the impact of FFS on the quality of care provided to patients is unknown. The current model of General Practice does not record or analyse information on the type or quality of care provided. This means the system is not positioned to recognise inefficient practices or high-quality care provision, potentially allowing the wastage of resources.


2.2.1 Providing high-quality care is not encouraged or rewarded

The existing payment model rewards volume-based behaviour. To illustrate this, consider two GPs who, in a standard MBS level B attendance, bulk bill their patient. The first GP spends five minutes with the patient, issuing a referral and/or a script. The second GP sees a patient presenting with equivalent symptoms, spending additional time with the patient, educating them on healthy lifestyle choices and preventive strategies. For example, during the examination, the patient is determined to be a smoker and the doctor and the patient discuss different techniques for quitting. This example illustrates how the choice to invest greater time in the consultation could lead to a different patient experience and potentially a different health outcome. However, it is not the GP who spends more time with the patient and provides more comprehensive care who is rewarded. The GP who has shorter consultations is able to see more patients and is financially rewarded through receiving more MBS rebates.

Although there are practising GPs with good intentions to improve the long term health of their patients, they are not supported by the FFS payment system. The FFS model has been criticised for rewarding increases in the volume of service prevention, which supports the treatment of acute illness but fails to promote the prevention of chronic diseases. The impacts of this are seen in the variability of care provided; as noted by NHPA: “marked differences were found in both the frequency with which GPs manage patients’ chronic conditions and in the clinical actions GPs take to care for those conditions”.

2.2.2 Lack of incentives to provide integrated care

Integrated care involves the patient and their health care team developing agreed care targets with a care plan that all parties work to. Through better understanding of the goals of care and clear communication between providers, integrated care aims to improve patient outcomes. Delivering integrated care requires a significant level of coordination between participants and investment of time which is not facilitated under the FFS model. By not recognising and incentivising the provision of integrated care, the potential benefits of improved patient outcomes and reduced service utilisation are lost.

2.2.3 A lack of tools to identify variation in the quality of care across General Practice

There is a lack of information available to identify the extent and impact of variation in General Practice on the quality of care. This is in part due to the FFS payment model where providers are reimbursed on the basis of services provided rather than type or quality of care. General Practice throughout Australia employs close to 25,360 FTE GPs through a diverse range of practice structures: from solo practitioners and small groups (i.e. 2–5 GPs) to large groups (i.e. 6–10 GPs); and groups larger than 10 GPs through to private and large national corporate groups. This environment provides a range of options to the Australian consumer with variation in styles of practice, hours of service availability, staffing models, models of care and quality of care.

No tools exist to understand the extent of variation in quality of care in General Practice, nor the impact of these variations on the health care system. At a broader level, it is not possible to understand if using the current payment model supports General Practice to operate efficiently to meet the health needs of the Australian population.

24 In 2013-14 the average length of a consultation between a patient and a GP was 14.8 minutes (Britt, H. et al, 2014. General practice activity in Australia 2013-14. General practice series no. 36. Sydney: Sydney University Press, p 42). The five minute consultation discussed here is a hypothetical example of what could occur in an environment where a FFS payment system supports a high volume of care.
26 National Health Performance Authority, 2014, Healthy Communities: GP care for patients with chronic conditions in 2009-2013. p. iii
This is because the FFS model\textsuperscript{28} does not facilitate the effective monitoring of the efficacy of care in terms of quality or outcomes delivered. High-quality care is not being measured, recognised or rewarded, nor is poor-quality care being identified and addressed. This is a concern for all involved: patients, GPs and funders. GPs consulted during the development of this paper commented that they could not say for certain whether they were a GP operating at the ‘top of their licence’,\textsuperscript{29} or if there were potential areas within their practice for improvement.

Determining the efficiency and measuring the quality of health care is unlikely without better Information and Communication Technology (ICT) connectivity. Despite some recent advances in ICT and system integration within the primary care and acute sectors, there is still no single electronic health record which is shared across all health practitioners. Ideally, health records should be linked across the primary, secondary, and tertiary health systems. It must include full patient history and a range of measures such as clinical parameters (e.g. HbA1c); indicators of escalation to the acute sector (including potentially preventable hospital admissions); and outcomes that matter to patients (such as patient-reported outcome measures and patient-reported experience measures).

2.2.4 Potential wastage of resources

In Australia, the average number of doctors’ consultations (including specialist consultations) in 2013 was 7.1, which is the same as the OECD average.\textsuperscript{30} However, when compared to other countries that use patient enrolment as a feature of health care, such as New Zealand (with an average of 3.7 consultations in 2012) and the United Kingdom (an average of five consultations in 2009), we can see there is potential for improvement. On average, Australians see a GP 5.6 times a year; however, 12.5% of the population see a GP 12 or more times a year and account for 41% of all non-hospital Medicare expenditure.\textsuperscript{31} More than one-third of this group saw five or more different GPs, and as a whole, this group make up 60% of adults being admitted to hospital more than four times in the previous year.\textsuperscript{32} It is easy to understand how having so many contact points with the health care system and not having someone assigned the responsibility of managing the care of the patient can result in duplication of services through lack of coordination and communication. It has been proposed that focusing on the efficient coordination of care can reduce the risk of duplication of tests and decrease the costs to the health care system.\textsuperscript{33}

The existence or extent of wastage resulting from duplication and lack of coordination is difficult to quantify because health care funders and administrators do not know what services are being provided by GPs — especially during a standard medical professional attendance. Unless more information is gathered on the type of care provided and the health outcomes achieved, we risk continuing to support inefficient practices and preventing the development of a primary health care system capable of recognising and acting on opportunities for improvement.

\textsuperscript{28} Supplemented with other input-based payments such as Practice Incentive Payments (PIPs), Service Incentive Payments (SIPs) and potentially some flexible funding from Primary Health Networks (PHNs)

\textsuperscript{29} Operating at the ‘top of their licence’ promotes clinical staff to perform work of the clinical complexity that is allowed by their registration or accreditation, and requires the offloading of less complex work to staff with less qualifications.


\textsuperscript{31} National Health Performance Authority, 2015. \textit{Healthy Communities: Frequent GP attenders and their use of health services in 2012-13}.

\textsuperscript{32} National Health Performance Authority 2015, \textit{Healthy Communities: Frequent GP attenders and their use of health services in 2012-13}.

2.3 Low levels of patient engagement by international standards

When compared to other countries, the level of engagement that Australians have with their health care is low. By increasing the level of engagement of the patient with their health care, health outcomes are improved, patients report better experiences with their health care, and the rates of hospitalisations and emergency department visits may be reduced.\(^3\) There are many potential causes of low engagement including low levels of health literacy\(^3\). Low levels of health literacy would not only cause low engagement in self care\(^3\) but also prevent someone interested in self care from being able to determine and implement the required behaviours. One area where patient engagement is seen to be low in Australia is in the self care behaviours of heart failure patients. Although Australians reported high levels of compliance with their medications, they scored poorly when compared to those in 14 other countries for four other self care behaviours including exercise, weight monitoring, having a flu shot and restricting sodium.\(^3\)

2.4 The future financial viability of General Practice

To explore the ongoing financial sustainability of General Practices, this paper models the operating costs and Commonwealth Government revenue for an illustrative General Practice from Western Sydney. In determining how General Practices structure their operations, consultations were undertaken with stakeholders in Western Sydney. These consultations revealed a range of operating costs, predominantly resulting from differing staffing structures, contractual arrangements and ownership styles. The main operating structure identified used a staffing mix where the GPs are employed as contractors rather than as full-time employees.

The analysis presented in this section is based on an illustrative General Practice with the following staffing structure:

- 3 FTE GPs contracted at an average of 70% of MBS billings
- 1 FTE Practice Manager
- 1.5 FTE Medical Receptionists.

Although this only represents one of many possible variations, it was felt this practice structure would provide a reasonable basis for analysis, particularly given 82% of General Practices in Western Sydney have five or less FTE GPs.\(^3\) Information on the standard overheads required to operate a General Practice were also gathered as part of the stakeholder consultations and have been used in this modelling.

Only the Commonwealth revenue for the practice is considered. In determining the Commonwealth Government revenue for the illustrative General Practice, national expenditure was apportioned by dividing the total amount of expenditure on non-referred attendances and GP management plans, and the expenditure on Practice Incentive Program (PIP) payments and Service Incentive Payments (SIPs), by the number of GP FTEs in Australia. These estimations assume 17,576 patients encounters at the illustrative General Practice per annum.

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\(^3\) Hibbard, J., Greene, J.. 2013 What the evidence shows about patient activation: Better health outcomes and care experiences; fewer data on costs. Health Affairs, 32:2, p. 201-214.

\(^3\) Health literacy is the ability to obtain, read, understand and use healthcare information to make appropriate health decisions and follow instructions for treatment.

\(^3\) Self care refers to the patient initiating and managing their own health care, independently of direct contact with a healthcare professional although they may use other health resources included a personalised care plan.


\(^3\) Internal data supplied by WentWest on the General Practices sizes in Western Sydney.
Nationally in 2014, the primary care system delivered 135,298,998 non-referred attendances (including GP/VR GP, Enhanced Primary Care, Other, and Practice Nurse Items). The Commonwealth expenditure in relation to these services (excluding associated diagnostic imaging, pathology and specialist attendances) included:

- $6,350,609,919 in Medical Benefits Schedule (MBS) rebates\(^39\)
- $247,860,000 in Practice Incentive Programme (PIP) and General Practice Immunisation Incentives (GPII) payments\(^40\)
- $20,000,000 in rural incentives.\(^41\)

While it is difficult to assess the efficacy of the illustrative General Practice, the analysis assumes that volumes are effective and efficient. Figure 1 shows the Commonwealth revenue for the illustrative General Practice in Western Sydney, and the breakdown of expenditure for that practice. This is only one possible General Practice operating model. For a more thorough analysis of the future financial viability of General Practice, a more detailed study of the cost base of General Practice across Australia is required, capturing the full diversity of practice structures and operating costs.

The operating costs of the illustrative General Practice is used below to test the potential implications of changes to policy (e.g. MBS rebate freeze) and the medical workforce within General Practices (e.g. ratio of practice managers, practice nurses and administrative/reception staff to GPs) on future sustainability. For the scenarios below, this paper considers a hypothetical scenario where the 25,360 FTE GPs within Australia are structured in homogenous groups similar in nature to the illustrative General Practice, subject to the current operating and funding environment.

**Figure 1: Revenue and costs of an illustrative General Practice in Western Sydney (source: EY)**

![Graph showing revenue and costs of an illustrative General Practice in Western Sydney](image)

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39 Medicare Statistics – Summary Statistics by Broad Type of Service  
40 Outcome 5 – Primary Care – 2014/15 Budget  
41 Department of Health – Health and Ageing – 2013-14 Budget at a Glance
2.4.1 Business as usual: Current model of care and payment model

EY’s modelling has shown there is a large amount of variability in the “baseline” estimate of General Practice profit and loss (see Appendix B for details of modelling assumptions). In other words, there is a significant level of uncertainty in EY’s best estimate of the aggregate net profit that General Practices are making today, using available data. By contrast, there is less uncertainty in terms of how the revenue and cost of General Practice might change in the future. This is due to cost increases being driven by indexation against relatively stable benchmarks and the certainty provided by Government on future funding. As such, the indicative range shown in figure 2 is wide initially and this width is maintained in the future due to the stability of likely funding and cost changes. The modelling assumes a continued MBS rebate freeze. It shows operating costs exceed funding received from the Commonwealth after three years. This chart illustrates that as a ‘Business as usual’ scenario, the current model of care and payment model may not be sustainable.

Figure 2: Indicative range of General Practice Profit & Loss under Business as usual approach (Source: EY)

It is anticipated that market forces would respond to drive a correction towards break-even and a return to profit, through either increased volume of patient encounters in the system to drive additional funding to General Practice or consolidation of General Practices within the market.

2.4.2 Scenario 1: General Practices increase the volume of patient encounters by 20%

Under the first scenario considered outside of ‘Business as usual’, General Practices increase the volume of patient encounters by 20%. Figure 3 illustrates the impact. The increase in volume is expected to assist General Practices to remain profitable for four years (an additional year to the Business as usual scenario). Without any other system changes (e.g. indexation of MBS rebates or consolidation of General Practices), it is expected that the current model of practice might not be sustainable over the longer term, notwithstanding the 20% increase in volume.

Figure 3: Indicative General Practice Profit & Loss (based on increased 20% volume of patient encounters) (Source: EY)
2.4.3 Scenario 2: The number of General Practices is reduced by 20%

Under the second scenario, there is a 20% market consolidation, or corporatisation, of General Practices that results in an increase from three FTE GPs to 3.8 FTE GPs. Figure 4 illustrates that consolidation of this magnitude is expected to assist General Practices to remain profitable for five years, an additional two years from the ‘Business as usual’ scenario. This illustration suggests that consolidation may be a more effective mechanism of returning General Practices to profitable outcomes than a simple increase in the volume of patient encounters. However, this illustration also indicates that the extent of market consolidation required for General Practice to remain sustainable under the current model over the longer term is greater than 20%.

Figure 4: Indicative General Practice Profit & Loss (based on a 20% consolidation) (Source: EY)

2.4.4 Potential implications of market corrections

There are potential implications of market corrections on patient outcomes and the long-term sustainability of the current model of General Practice. Under either of the scenarios explored, increased patient volume or market consolidation, adverse outcomes for patients could emerge. With market consolidation of General Practice comes the closure of specific general practices that may negatively impact the availability and access to care for patients. This impact is likely to be more significant in rural areas or communities that do not have a strong connection with transport infrastructure.

Similarly, increases in the volume of patient encounters to drive profitability would reinforce the potentially negative impacts of FFS payments; further shifting the focus of GPs from continuity of care to care with high throughput, with less focus on preventive care, therefore placing greater pressure on specialists and the tertiary sector.

It is evident that continuing with FFS payments does not offer any incentive or impetus to improve access to or the quality of care provided. Through changing the payment system to be more closely aligned with incentives for improved patient access and health outcomes, the impacts of market corrections can be mitigated.

With the Commonwealth’s aims of improving health care for all Australians, building an integrated primary health care system, improving quality and access, and reducing inequity – it is unlikely that they would be willing to accept the risks (both financial and to health outcomes) of either significant consolidation of General Practices or increasing the volume of patient encounters and MBS rebates. Ultimately, neither of the market corrections explored through Scenario 1 and 2 will achieve the objectives of a financially viable system that maintains high levels of quality patient care when the predominant funding mechanism for General Practice is the FFS payment model.
3. Aligning incentives and allowing flexibility to enable better outcomes

In order for health care delivery in Australia to continue to improve and be sustainable in the future, it is critical that the incentives (within the payment system for General Practice) are appropriately aligned to deliver a model of care that achieves benefits for patients, General Practice and the health system.

This section describes each of the key elements of the proposed new multimodal payment model. Figure 5 provides an overview of how the payment model could be structured.

Figure 5: How the APCMH model could operate in the Australian health care system (Source: EY)
3.1 MBS Fee For Service

FFS payments under the MBS will continue for providers not providing care under the APCMH model and for patients who choose not to enrol or for whom the model is not applicable. This would include patients requiring incident care, the provision of preventive health care (such as immunisations), and the treatment of illnesses in patients with chronic conditions that are unrelated to their chronic condition. The continuation of FFS payments supports:

- The provision of care at a level that meets the patient’s needs
- The smooth transition from fee-for-service payments to fixed payments and performance-based pay under the APCMH model
- Ensuring the APCMH model does not disadvantage providers or patients who do not subscribe to it, while promoting the use of the model to have more control of patient care and to increase profitability through more efficient service delivery.

3.2 Block payments

When patients are enrolled in the APCMH model, the funds that would have been spent on managing their chronic and complex diseases through MBS rebates, PIPs and SIPs will be cashed out. This means that care of the patient’s chronic and complex diseases, including pathology and diagnostic imaging (DI) services, will no longer be funded through the MBS. This block amount of cashed-out payments will be paid to the PHN for distribution to the General Practices providing care to the enrolled population as patient complexity payments and performance-based payments. The enrolled patient will retain access to the MBS for preventive care, such as immunisations, and for incident care.

3.2.1 Patient complexity payments

Following enrolment in the proposed model, the patient complexity payment received by the General Practice will be determined by the PHN. The PHN will pay the practice the amount of funds that have been cashed out from the MBS, PIPs and SIPs that were used to manage patients’ chronic conditions, subtracting the funding retained for payments contingent on performance. This payment is the patient complexity payment. The payment will be adjusted to reflect variables influencing health care expenditure such as the patient’s:

- Cultural and linguistic diversity needs
- Aboriginal and/or Torres Strait Islander status
- Level of health literacy and existing support available to utilise available health care
- Socio-economic status
- Number and severity of chronic diseases.

The use of the patient complexity payment by the General Practice is flexible, allowing the delivery of care by a team of health care professionals (potentially including but not limited to GPs, care facilitators, allied health professionals and practice nurses) in a way that is the most cost-effective and through mechanisms (e.g. face-to-face, telephone and video-conference) that are most appropriate to the patient’s need. The payment will cover all costs of the patient’s primary care needs including consultations with health professionals, pathology tests and DI. The flexibility of expenditure promotes:

- Finding efficiencies through adjusting the mix of health professionals providing care
- Multi-modal interaction, as the method of care delivery is no longer limited by the inflexibility of the restrictions surrounding reimbursement under the current FFS model.
Furthermore, the funding allows the provision of services in a form that is culturally appropriate to the individual patient. The level of certainty that is provided for practices will allow them to plan and budget for the care needs of the patient. The ongoing financial viability of practices will be supported, as they will be informed of the payment they are receiving for the patient and will be able to determine cost efficient mechanisms to provide care for the patient. For the Australian government, allowing the cash out of MBS and PIPs for patients with chronic conditions and complex care needs stabilises the level of health expenditure on this patient group. There may also be a reduction in the unexplained level of variability in health care expenditure between practices.

3.2.2 Performance-based payments

General Practices would also be eligible to receive performance-based payments. Performance-based payments recognise practices delivering quality and equity of care. The PHN would assess the performance of the enrolled patients of a general practice against criteria such as:

- Patient reported outcome measures and patient reported experience measures
- Clinical outcomes relevant to the patient’s condition (such as the HEDIS set of measures)
- Other targets as agreed, such as decreases in unscheduled hospital readmissions or increases in equity of health measures for different population subgroups.

The incorporation of performance-based payments is thought to promote the delivery of high-quality care, although the ability of payment systems to alter health practitioner behaviour is unknown. It is hoped that the use of well-designed performance-based payments will encourage learning between providers and increased engagement of patients and providers with measuring and monitoring outcomes of care. Achieving good performance will require high levels of patient involvement with their health care, integration of and communication between health professionals, and the use of evidence based policy.

As this is a new area for Australia, the use and efficacy of this type of payments needs to be tested.

3.3 Capability and capacity-building payments

To drive improved equity and access to care and quality patient outcomes, additional support will need to be provided for the health care system including:

- Commissioning of health care services
- Distributing block payments, including determining eligibility for performance-based payments
- Building capability and capacity within the region
- Monitoring the impact of the model.

PHNs have been identified as an intermediary to provide these services. To enable PHNs to support General Practice to implement the model, capability and capacity-building payments have been suggested. These payments would allow the PHN to perform multiple support roles including: investing in infrastructure (such as linked electronic health records, electronic payment systems and data collation and analysis software), coordinating training opportunities, disseminating emerging research, and establishing teams of health professionals to support clusters of General Practices and other functions as discussed in Section 5. With infrastructure such as linked electronic health records in place, the continuity of care delivered to patients as they move through the system is improved, enabling health care professionals to focus on treatment rather than administration, and reducing unnecessary duplication of services. By increasing access to training and research and promoting shared learning within the region, the uptake of evidence-based medicine should be increased, benefiting enrolled and unenrolled patients alike.

4. The future model for care delivery

This section introduces a model of primary care for the future: the Australian Patient-Centred Medical Home (APCMH) model.

The Patient-Centred Medical Home (PCMH) was developed in the USA in anticipation of the very same future problems we are facing in Australia today: the increasing health care needs of an ageing population and the increasing financial burden on funders of the health care system.\(^{43}\) The PCMH builds on the Medical Home Model where the medical home is the focal point of an individual’s health care, providing care that is accessible, accountable, comprehensive, and integrated, and has been found to be effective in caring for children with special needs.\(^{44, 45, 46}\) What the PCMH model adds to the Medical Home model is ‘patient-centredness’: putting the patient at the centre of care and increasing the importance of a strong patient-provider relationship.

Following the proposal of a PCMH in 2006 and its subsequent implementation, it has been found to reduce disparities in health outcomes and drive higher standards in patient experience and outcomes.\(^{47, 48}\) The success of the PCMH model in reducing the costs of care for medically complex patients is a good reason to develop a PCMH model that is specific to the Australian context to improve the quality of care provided to patients with chronic diseases and complex care needs and manage the costs of providing this care.\(^{49}\)

The APCMH model is presented in this section from the perspective of what a high quality General Practice could look like, the nature of the service provided, and how care is provided. The model builds upon the model of the PCMH, which improves population health, enhances patient experience, reduces health care costs and improves the job satisfaction of health care professionals.\(^{50}\) The model incorporates the proposed multimodal payment system described above as a key feature that drives the quality of care and other system efficiencies.
4.1 Features of the future model of care

While traditional models of care delivery may be episodic, illness oriented or complaint-based – delivering care under a standard PCMH model is patient-centred, physician guided, cost efficient and directed at longitudinal care goals. By having a single medical home which is the centre for delivering and coordinating care for the patient, a continuous relationship is promoted between the GP and patient supporting improved health. In a PCMH, GPs work with patients to determine health goals and provide support to access necessary care. The GP works with a team of health care professionals to deliver evidence-based medicine using clinical decision support tools. Care provided by the PCMH does not need to be limited to face to face visits but can also include telephone, e-mail, video conference, and other appropriate modes of communication. It is expected that providers delivering care under a PCMH model implement technologies to promote quality care. The PCMH also requires ongoing quality measurements and programs to provide feedback and guidance on performance.

This structure is largely retained in the APCMH model, with patients voluntarily enrolling with a GP for the management of their chronic conditions and complex care needs. The original PCMH model has been adjusted to better reflect the preferences of Australian patients and the Australian context of health care delivery. To account for varied practice sizes in Australia, in the APCMH model a cluster of General Practices will have access to a team of health care professionals, including a care facilitator. Using this team, the GP will lead a diverse group of care providers to provide care that is continuous, comprehensive and coordinated. It is care for the whole of a person, that is evidence-based and of high-quality. The General Practice will value the relationship between the primary care provider and their patients, families and their caregivers. As seen in Figure 6, it will foster an environment where the patient is at the centre of care and is actively involved in making decisions about their care. The GP will have the flexibility to direct funds across a multidisciplinary health care team. Through support and interaction, relationships between health care providers will be enhanced and opportunities for continuous development and improvement realised.

The current FFS model, that encourages high throughput of patients, is not patient-centred, nor does it encourage quality care or teamwork. The intended outcomes and functionality provided under the APCMH model will be incentivised by the proposed multimodal payment system discussed in Section 3.


Features of the APCMH model include:

- Voluntary enrolment of patients with chronic conditions and complex care needs to a GP
- General Practice determines if they will implement the APCMH, supported by the revised payment system
- A GP leads a care team including the patient, other health professionals and support staff to manage the patient’s needs using methods that are culturally appropriate

- The PHN commissions services, builds capacity and capability within the region, and monitors the patients’ and programme’s outcomes to ensure ongoing improvement (see Section 5 for further detail)
- Improved communication between health care providers at all levels (primary, secondary and tertiary) facilitates the smooth and efficient transition of patients and the continuity of care delivery.
4.2 Key enablers of the APCMH model
The key enablers include:53

- **Clinical leadership:** Allowing GPs (rather than policymakers or insurers) to determine what health care is most appropriate for the patient in line with patient preferences and the best available evidence.

- **Effective partnerships:** Appreciating the benefits offered by different health care providers and engaging these providers appropriately to optimise patient care.

- **Accountability and joint decision making:** The ability of all members of the health care team, including the patient, to work together to determine what course of action to take, and once decided, commit to the course of action and contribute what the team requires.

- **Patient engagement:** Providing patients with the information required to be involved in decision making and giving them a realistic understanding of the personal commitment required and the outcomes that can be achieved.

- **Aligned financial incentives with health outcomes:** Using performance-based payments to align financial incentives with patient and population health outcomes (see Section 3).

- **Continuous professional development:** Ensuring staff have the training and skills required to perform their responsibilities and supporting staff involvement in research projects and sharing their findings.

- **Evidence-based policy supported by the government:** In many ways, the government determines the environment in which health care is provided. By developing policy that is evidence-based and allows flexibility in care delivery, the government enables clinical leaders to determine the most appropriate care for the patient.

- **Information sharing:** Providing opportunities for sharing the results of different interventions and innovations in General Practice operating models.

- **Communication and collaboration:** Clear and honest communication within the health care team to help establish productive and trusting relationships to support the best patient care, and to enable health care providers to work together, including across practices and regions.

- **Leveraging technology:** Providing multiple points of access to a patient’s medical history (e.g. electronic health records) within and across practices to enhance patient care.

- **Training the next generation:** To reinforce the change in the model of practice model, the training of GPs and other health professionals is needed to develop skills appropriate to team-based patient care under the APCMH model.

*Health International: What it takes to make integrated care work?* p. 48-55.
4.3 Impact of the future model of care

Once fully implemented, the APCMH model will provide benefits to the patient, to General Practice and to the broader health system.

4.3.1 Benefits to patients

Patients who choose to enrol in the APCMH model should experience improvements in their health outcomes and their patient experience. The experience of care will be enhanced through improved access to care, increased continuity of care, and ongoing measurement of progress, all of which promote improved health outcomes – as well as improved self care and the patient taking a more active role in the care team.

Improved access to appropriate care will occur in three ways. Firstly, by the GP having discretion over spending funds, some of the limitations associated with the MBS, such as limits on the number of subsidised allied health consultations per year will be removed. Secondly, the flexibility of funding will provide increased opportunities for care to be delivered in a culturally and linguistically appropriate way, including the potential for increased use of Aboriginal Health Workers. Finally, as the GP is overseeing all of the care provided to the patient and the care team will include a care facilitator, all care that the patient receives will be directed at achieving agreed health care goals. The availability of required services will be supported in the APCMH model, where the PHN is supported to adequately monitor and develop the capacity of health care providers in the region and commission services where required.

The involvement of the patient in the decision making process will improve their understanding of their condition, the options available to improve their health and what the likely outcomes will be. By involving patients in decisions about their care, the aims of treatment will be aligned with patient preferences, resulting in increased adherence to the treatment regimen and improved outcomes. This is important as it empowers the patient to take more responsibility for their health and will likely result in better health outcomes and decreased need for interventions. Further, better understanding of probable health outcomes provides the patient with realistic expectations and is likely to result in higher levels of satisfaction with the care provided.

The development of health care decision making tools along with the increase in access to these resources and others through emerging technologies will support the patient to be more proactive in their health care, and initiate more self care.

With improved communication between different health care providers, continuity of care within the primary health care sector and between other levels of health care, a more continuous and efficient patient journey can be achieved. This will be facilitated by the use of electronic records, updated at the time of care or as test results become available, that can be accessed by the providers involved in the patient’s care.

54 Stacey, D., Légaré, F., Col, N.F. et al. (2014) Decision aids for people facing health treatment or screening decisions. Cochrane Database of Systematic Reviews Issue 1. Art. No.: CD001431. DOI: 10.1002/14651858.CD001431.pub4

To be able to track the experience of patients in the APCMH model, patients will be surveyed for Patient Reported Outcome Measures (PROMs) and Patient Reported Experience Measures (PREMs). By surveying people at the time of their enrolment and periodically repeating the survey, health professionals treating the patient will have a better understanding of how the patient perceives their progress, providing an opportunity for further discussion and tailoring of care.

There will also be benefits for non-enrolled patients attending General Practices who implement the APCMH model. These include an improved culture of care delivery where the patients are routinely involved in decision making, increased use of evidence-based medicine through increased availability, and increased collaboration with other health care providers.

4.3.2 Benefits to General Practice

Under the current arrangements, MBS funding is used in primary care predominantly to reimburse GPs for service provision; however, the reimbursement of other health care professionals for primary care services is restricted. The flexibility allowed with the expenditure of patient complexity payments under the APCMH model offers an opportunity for General Practice to change staffing structures. To provide comprehensive management of the enrolled patients, GPs will lead a multidisciplinary team and will have access to a team of health professionals. In order to provide the best possible care for these patients, each profession will practise at the top of their licence, improving job satisfaction and the efficiency of health care delivery. For example, the use of practice nurses to administer injections can free up the time of doctors to perform more clinically complex tasks. These factors will improve provider satisfaction, increasing staff retention and helping ease workforce and financial pressures.

The flexibility of patient complexity payments will allow care to be delivered in a way that is most appropriate for the patient. This may include consultations in the practice, via telephone, email, video conferences and home visits. In contrast to the current environment where GPs are only reimbursed for services where they are physically present, the proposed multimodal payment system supports increased flexibility of service delivery utilising available technology to deliver and monitor the care provided.

The use of the patient complexity payments to provide care through multiple avenues improves access to care, improving patient outcomes without compromising the financial viability of the practice.

The work environment at General Practices will be improved by the establishment of supportive health care teams, united by the common goal of improving the health of enrolled patients, increasing job satisfaction for all staff. In particular, the APCMH model promotes enhanced relationships with patients and other health care professionals and provides more opportunities for learning and development.

By implementing the proposed multimodal payment system to support the APCMH model, the financial sustainability of General Practices will be improved. Shifting away from FFS payments and towards block payments will assist providers by providing a more consistent funding stream that reflects the complexity of care being provided. The use of performance incentive payments will reward providers for the quality of care they provide.
Being enrolled with a specific GP who is responsible for the patient’s overall health care will promote continuity of care and a relationship based on trust. The key health concerns of the patient may be assessed using PROMs to guide treatment priorities. Assessing PREMs after care has been delivered gives providers the opportunity to improve their service and the patients’ perceptions of and engagement with health care. The use of health performance measures, such as the Healthcare Effectiveness Data and Information Set (HEDIS), provide a consistent measure for determining the clinical effectiveness of care. The health care team will be able to use clinical measures to compare interventions and determine the most effective interventions in their enrolled patients.

4.3.3 Benefits to the health care system

Monitoring patient outcomes and linking the outcomes to payments will help promote quality and equity across the population. Implementing the APCMH model will improve population health, not only by improving the health outcomes of the enrolled patients, but also the health of the broader population as interventions found to be effective are implemented more widely. Through increased communication and collaboration between health care professionals at all levels and the use of technology, the health system will also be more integrated and capable of providing a continuous patient journey.

The provision of high-quality care and increased accountability of health care providers is incentivised by patients voluntarily enrolling with a GP of their choice and including performance incentive payments. Accountability and ongoing monitoring against outcome measures means that the funders of health care will better understand the outcomes of their expenditure and the impacts on the health of the population. This information can be used to inform how funds can be effectively directed and assist in other health planning processes.

The incorporation of a payment system, that includes a set amount of funding for the care of patients with chronic disease and complex care needs, will increase the stability and control over the future cost of health care. Not only will the system be more financially sustainable, the flexibility allowed in the delivery of care will promote the right care being delivered in the right place at the right time, improving health outcomes and job satisfaction and helping reduce workforce pressure for primary health care.

The APCMH model transfers the focus of care from the more expensive secondary and tertiary health care sectors to improved intervention by the primary health care system. Initial investment in primary health care would decrease costs to the secondary and tertiary health care systems, potentially reduce the rate of admissions of patients with chronic and complex care needs, and allow hospitals to reduce waiting lists for other patients.
5. Governance structure

The APCMH model of care and the new multimodal payment system require oversight and support for their development and implementation, a service which can be provided by PHNs orks in addition to their current role. The role of PHNs would not lie in service delivery, but rather in supporting the government and General Practices to implement and develop the APCMH model. To support primary care providers to transition to and deliver care under the APCMH model, respective PHNs can perform multiple functions as demonstrated in Figure 7 and discussed further below.

Figure 7: The role of the PHN in delivering the APCMH model (Source: EY)
5.1 Commissioning of services

By assessing the needs of the enrolled population and understanding the capacity and capability of health care providers in the region, the PHN can determine what additional services will be required to provide the care needed. The PHN can arrange to purchase required services, potentially from providers who are external to the region. Once the services have been delivered, the PHN will review whether the needs were met, and assess likely future needs of the population, identify future resource requirements and plan resourcing. The process of commissioning care includes:

- Assessing population health needs, determining desired outcomes and setting priorities
- Determining how the desired outcomes can be achieved, and designing appropriate service provision
- Identifying and allocating resources to maximise the value of existing services provision
- Monitoring and quality assurance of implementation and service delivery
- Evaluating the impact and learning from the process.

5.2 Capacity and capability building within the region

The PHN will perform multiple functions to increase capacity within the region. These will include providing a team of health professionals, training health professionals, supporting the development and implementation of ICT infrastructure, assisting General Practices with administrative tasks and improving collaboration between providers.

Multidisciplinary teams delivering a patient’s care will include allied health professionals among others. For a single General Practice, the workload and required professionals may vary, making it difficult to engage allied health professionals on an ongoing basis. The knowledge of the needs of the enrolled population and the health resources available in the region positions the PHN to manage this team of health professionals, which can be utilised by a cluster of General Practices, providing a more consistent workload and promoting ongoing professional relationships between providers.

Another key role of the PHN will be to increase the capacity and capability of the workforce in their region, developing staff so they can work to the top of their licences. By communicating with health providers, they can understand what workforce needs are not being met and determine whether resolving the shortfall requires upskilling of existing staff or commissioning additional staff. By forming strategic alliances with health care trainers, the PHN can help ensure that not only graduates have the skills required, but they can also provide linkages between educators and employers for training placements and recruitment. To develop staff and increase the use of evidence-based medicine, the PHN may disseminate research or coordinate activities to assist professionals to meet continuing professional development requirements.

The PHN will help General Practices to take advantage of available technology by developing software capability to manage patient care, and training practice staff and other health professionals in the use of the software. The PHN will take responsibility for promoting the use of the software to the community and health professionals. Initial capabilities which the PHN may develop include a system for patient enrolment, technology for secure messaging, and real-time data on pathology, diagnostic imaging and prescriptions that can be viewed by all members of the patient’s health care team.

56 SA Health, 2013. Clinical commissioning framework
As initiating the APCMH model will increase the administrative requirements for General Practice, especially during the period of patient enrolment, there may be a role for the PHN to assist practices. This may take the form of trouble-shooting, or the provision of staff to assist with the extra workload.

The involvement of secondary and tertiary care providers is important to maintain patients’ health. By improving communication between all health care providers and providing opportunities for interaction – such as the development of goals and actions for a patient’s care plan or disease-specific education sessions for clinicians – collaboration between health care providers at all levels is encouraged.

5.3 Monitoring patient outcomes and quality of care

To understand the impact of the APCMH model and ensure the maintenance and improvement of quality of care provided to patients, the PHN will monitor the system, including PROMs and PREMs, clinical outcomes (potentially using HEDIS measures), and other targets as agreed. The results of the monitoring will be fed back to providers and patients using a web based dashboard that is easy to interpret. Monitoring and reporting outcomes will allow providers to identify which areas are making good progress and which need further development. Findings of effective care delivery methods can then be shared, promoting continuous learning and improvement in health care delivery.

The ongoing collection of this data will enable the PHN to monitor the quality of care being delivered and the health outcomes being achieved by patients enrolled in the APCMH model. This will underpin performance-based payments (see Section 3.2.2), aligning the incentive payments with the desired outcome of improved patient outcomes. By including performance measures for specific population subgroups, such as those who identify as Aboriginal and/or Torres Strait Islander, people experiencing socio-economic disadvantage, and people from culturally and linguistically diverse backgrounds, the PHN can promote equity in health outcomes achieved.

5.4 Administration of block payments to GPs

As shown in Figure 5, the PHN could act as an intermediary between the Commonwealth Government and General Practice to distribute funds cashed out from the MBS, PIPs and SIPs and allocated for the provision of care to enrolled patients. The ability of PHNs to do this for patient complexity payments will be enabled by the risk stratification of patients and assessment of other factors impacting on the patient’s health care needs. The distribution of performance-based payments will be supported through the PHN’s role in monitoring quality of care and patient outcomes.

5.5 Key contact point for General Practice

The close relationship that the PHN forms with General Practice positions the PHN to become a key representative for the region in discussions with key stakeholders. These stakeholders would include Commonwealth Government, State and Territory governments, Local Health Districts, other primary health care providers, and the community. The discussions with governments may be particularly important in ensuring payments accurately reflect the costs of delivering care and in monitoring the quality of health care delivered.
6. Testing the APCMH model

The APCMH model described in this paper – with its focus on GP-led team-based care, the goal of improving long-term health outcomes and improving quality and equity of services provision – has not yet been successfully trialled in Australia.

Implementing this model would involve some major changes to the way health care is delivered and funded in Australia. Before implementing the APCMH model across Australia, a roadmap should be developed to determine and test the design of the model, and industry leaders identified to support the implementation of a pilot study. This section includes:

- Discussion of what steps need to be taken to determine and test the design of the APCMH model and new multimodal payment system
- Identification of an industry leader with the potential to partner in a pilot study
- Discussion of the learnings and outcomes expected from a pilot of the APCMH model and new multimodal payment system that can inform a larger scale implementation.

6.1 Developing the APCMH model pilot study

Although there is growing international experience and evidence that supports the ability of PCMHs to improve patient outcomes and increase provider job satisfaction, the applicability and feasibility of the APCMH model is yet to be established in the Australian context. A pilot study is needed. In preparation for the pilot and during its trial, areas of the model design requiring further development and the economic impacts of the APCMH model would be assessed.

6.1.1 Guidance for pilot design

Pilot studies play an important role in providing information for the planning and justification of broader system-wide implementation. A careful consideration of the design of the pilot is required prior to implementing a pilot study. Some key guidance to consider in the pilot design includes:

- The pilot should have clearly defined aims and objectives
- The pilot should be simple to understand for patients, doctors and administrators
- The implementation of the pilot should not interfere with current processes
- The pilot should not result in an unnecessary burden on patients, providers or administrators
- The pilot should be well structured and developed through an extensive planning process
- The patient cohort eligible for enrolment needs to be clearly defined; this will likely involve the use of patient risk stratification tools
- The pilot will require a sufficient number of General Practices to be enrolled
- The General Practices enrolled need to include representatives of all the different practice structures existing in Australia
- The processes for change management during implementation should be clarified
- The limitations of the pilot study should be well understood.
6.1.2 Patient eligibility and identification

The mechanism used for patient identification needs to be determined. Multiple options should be explored as part of the scoping study including: self identification; nomination by a health professional delivering patient care; and identification through review of clinical patient outcomes or hospital records. Once potential patients have been identified, their eligibility for care under the APCMH model needs to be assessed.

The eligibility criteria for patients to be offered enrolment into the APCMH model will have many implications for implementation. As seen in the evaluation of the Diabetes Care Project, the key to the success of the pilot will be identifying which patients are most likely to benefit from the APCMH model. Further eligibility criteria that may be considered include: patient characteristics (such as the social determinants of health); the presence and number of risk factors; the presence and number of certain diagnoses; and the severity of the disease state. Part of determining the eligibility of patients for enrolment into the APCMH model will involve stratifying patients according to risk. An appropriate tool that provides consistent results across multiple disease states will be needed.

The risk stratification results will determine patient eligibility for enrolment, and can also be used to define the patient mix enrolled with the GP. A defined patient mix involving set ratios of patients’ risk levels could help manage GP workloads and decrease variation between practices and funding requirements. Defining patient ratios may also help improve equity of access to the model for people of different risk ratings and reduce the potential for gaming by setting a more restrictive patient profile. There will also be circumstances where the use of defined patient ratios may not be practical, for example when the ratios do not reflect the risk of the population eligible for enrolment or if the enforcement of ratios excludes people from enrolling with their GP of choice. In these cases, flexibility should be allowed for GPs to enrol eligible patients. Factors that have been identified as being essential to the successful implementation of a risk stratification system are:

- The engagement of clinicians in the development, implementation, refinement and end use of the risk stratification tool
- The context in which the tool is introduced, taking into account the need for stratification and the incentives for risk stratification
- The data requirements and characteristics of the process
- The impacts of risk stratification on equity.

In determining the impact of the APCMH model on the overall health system, the ratio of enrolled patients to non-enrolled patients will be relevant. The APCMH model focuses on improving long term care and health outcomes of patients with chronic conditions and complex care needs. The implied high level of patient management is not required for the entire population and is unlikely to be taken up by all eligible patients. In planning the pilot, the proportion of the population eligible for enrolment will be determined, but it may not be known until the pilot is undertaken what proportion of eligible patients will enrol in the APCMH model. This information is important in determining what share of MBS funding will be redirected as block payments and what resources are likely to be required to manage the patients.

6.1.3 Behavioural modelling
Recent advances in statistical methods and techniques provide a range of options for testing potential future scenarios under a range of incentive structures. An important limitation of traditional economic modelling is the inability to capture all potential interactions between variables, and to accurately model behavioural responses to changing circumstances. Microsimulation is a computational technique that performs highly detailed analysis of activities and is often used to evaluate the effects of proposed interventions before they are implemented in the real world. Through the use of microsimulation, the predicted behaviour of patients in response to varying incentives and payment models could be analysed in detail during a feasibility study to determine the likely impact of proposed incentives. Microsimulation allows analysis of groups of patients who exhibit different styles of behaviour or response patterns and a greater understanding of interactions between environmental conditions within the primary health care system. Behavioural modelling and microsimulation are two of the tools available to assist in the design of the pilot.

6.1.4 Governance
Multiple administrative and governance tasks will be required to support the development and implementation of the APCMH model. In designing the pilot, responsibility for these tasks and the authority of the governing bodies need to be determined.

It is important that an organisation is assigned the responsibility of increasing collaboration and improving communication between providers at all levels of care provision. It is likely that the PHN will take on this role. As part of this work, they will need to determine which stakeholders to engage. This will include Local Health Districts, public and private hospitals, specialists, and other health care providers in the region. The role of each group also needs to be determined: whether they will be involved in clinical meetings or professional development opportunities; how they will use the patient care management software; and their role in other collaborative opportunities.

Measuring and monitoring outcomes is important to determine the impact of the pilot. Factors that need to be measured include the quality of care provided and patient outcomes achieved. The results of these measurements will determine performance-based payments and support ongoing system improvement. For this work to be relevant and have the desired impacts, the most appropriate performance measures need to be used. This will require consideration of the motivations of different parties, the desired outcomes, the amount of time stakeholders are expected to put into measuring and recording results, and the reliability and replicability of the measurements.

6.1.5 Funding
There will in effect be two potential funding streams for enrolled patients: MBS rebates for incident or preventive care; and patient complexity payments for complex care and chronic disease management. This adds a level of complexity to funding arrangements and the potential for patients and providers to 'game' the system to increase the amount of government benefits received.
Under the APCMH model, when an enrolled patient presents for treatment, the General Practice will need to determine whether care is incident or preventive care funded under the MBS, or whether the care is for the management of the patient’s chronic condition and therefore funded under the APCMH model. There is potential ambiguity over which funding mechanism should be used. For example, when providing preventive care – such as improved blood pressure control, recommended because of a chronic disease diagnosis such as diabetes – to a patient enrolled in the APCMH model, this preventive care could be funded by the MBS or the APCMH model.

Multiple factors will need to be taken into account in determining block payment amounts including:

- The ratio between patient complexity payments and performance-based payments
- How adjustments to payments would be made for the social determinants of health.

It is likely that the risk stratification that has occurred as part of the patient enrolment process will feed into determining the block payment amounts so that the payments reflect the complexity of care required.

There are also considerations around performance-based payments including:

- Is performance measured at the level of the patient or the provider?
- Will there be ongoing progress tracking (rather than annual reports) to give providers an indication of their current assessed performance level?
- What assistance will be provided to practices who are struggling to meet targets?
- What happens to the funds kept aside for performance-based payments but not paid out?

The implementation of this model has assumed that GPs providing care under the APCMH model will be paid out of the funds provided through the block payment amounts. Another possibility would be the use of salaries. Both payment structures have the benefit of breaking the link between increased service volumes and increased income.

6.2 Industry leader with the potential to partner in a APCMH model pilot study

In order that a pilot of the APCMH model can be quickly established and the results considered by government, it is important that the site selected has the necessary skills and relationships to launch the pilot. WentWest, with its history of engaging local providers, dedication to high-quality care and the productive relationships they have formed, is an ideal site to pilot the APCMH model.

WentWest have enrolled 15 General Practices to provide care under the PCMH model and has developed tools to help practices identify ways they can increase their ability to achieve the goals of the model. Through the Integrated Care Demonstrator site at Western Sydney LHD, WentWest has gained strong experience in integrated care, developed and implemented a Linked Electronic Health Record and has incorporated monitoring and assessment into the programme design. As part of their ongoing work to improve primary health care in Western Sydney, WentWest have developed Health Pathways and other decision support tools to assist GPs and provide information on the health care services available in the region. WentWest have developed their own commissioning framework, which they have successfully applied to provide services required for the Access to Allied Psychological Services programme. For further details of the experience of WentWest and the primary health care programmes they have been involved in see Appendix D.

Hence, WentWest have clearly demonstrated the necessary skills and experience to quickly start a pilot of the APCMH model and to understand the factors that will make the model sustainable and scalable into the future.
6.2.1 Integrated Care Demonstrator site at Western Sydney

WentWest in collaboration with Western Sydney Local Health District is running one of three Integrated Care Demonstrator sites operating in NSW, and tasked with trialling different methods for locally led integrated care and exploring approaches to system-wide integration. The PHN would use similar techniques to determine and invite the participation of patients eligible for enrolment in the APCMH model. This would expand the number of patients eligible to enrol in care designed to benefit complex patients and patients with chronic conditions. The PHN would be able to leverage resources and infrastructure already established through the Integrated Care Demonstrator site such as:

- Improved communication between providers using technology such as the LinkedEHR (see Appendix D)
- Determination of the health resources available (both health professionals and the offered services) and commissioning required services
- Monitoring and assessment of the programmes to promote continuous learning and improvement.

6.3 Learning and outcomes expected from a APCMH model pilot study

The learnings and outcomes from running a pilot study will determine the suitability of a large scale implementation of the APCMH model and multimodal payment system and identify any changes or supporting infrastructure that will be required to support the model’s success. Areas where the pilot will add significant value to the design of health policy in Australia include:

- Understanding how a change to the model of care delivery will influence patient involvement in care decisions
- Improved understanding of gaps in knowledge: such as how to best incentivise GPs and patients
- The impact of the model on patient health and health care outcomes
- How the payment system impacts the economic sustainability of General Practice and government funding of health care

6.3.1 Patient involvement in care decisions

The APCMH model places the patient at the centre of care with the GP leading the care team to improve long term health outcomes for the patient. The extent to which this will be successful will be influenced by the level of patient engagement with the process and the ownership they take over improving their health outcomes. One method used in Australia to increase patient involvement in care-making decisions has been the use of individualised care budgets as part of the National Disability Insurance Scheme (NDIS). The most recent progress report on the NDIS shows that for the trial sites across Australia, 33% of participants are using a combination of agency and self managed plans and 6% are self managed, showing an increasing trend over the past year. Increasing patient involvement in how their health funds are directed is likely to lead to increased engagement with care decisions and improved implementation of the care plan.

59 National Disability Insurance Agency, 2015. Quarterly report to COAG Disability Reform Council, 30 June 2015. Table 1.3.1
6.3.2 Improved understanding of gaps in knowledge

The pilot would result in improved understanding in key areas where there are gaps in knowledge. Incentive design (monetary and non-monetary) requires more understanding, both in the current FFS payment system and in the incentive design required to successfully implement the APCMH model. Not enough is known about how to appropriately value GP services and what incentives will elicit the desired behaviour. Because the APCMH model of care and the proposed multimodal payment system have not yet been tested in Australia, the response of GPs and patients is unknown. We do not know the level of interest in taking up the model. We do not know enough about the motivations of individuals to ensure that the incentives will produce the desired outcomes.

This is the key information that is needed: what incentives are required to encourage GP and patient involvement in developing the pilot and what systems will create a sustainable and effective APCMH.

Figure 8: Factors influencing the impact of pilot design (Source: EY)

Incentive design

In order to give the APCMH model the greatest chance of success, multiple facets need to be considered in incentive design, including behavioural influences, the current structure of the health care system, and the potential role of technology. The interaction between these facets is shown in Figure 8.
The APCMH model needs to be designed to incentivise GPs to engage with patients and provide care that improves the long term health of the patients, and reward them for accountability, increased collaboration between providers, and making the best use of available evidence. Incentive design needs to understand that the underlying motivations for all players are not solely financial but also behavioural. Incentives that are designed correctly will enable the long term sustainability of the model and minimise the risk of gaming.60

**Involvement with the APCMH model**

The extent to which patients and providers become involved with the APCMH model will influence the extent to which benefits can be realised. As seen with the Personally Controlled Electronic Health Record (PCEHR), take up of health technologies in Australia can be low. By June 2014, less than 10% of the Australian population had registered for a PCEHR.61 More concerning is that after a peak in usage in July 2013, by December 2013 the number of providers accessing PCEHRs had plateaued at around 500 providers per week, and the number of consumers accessing their PCEHR had dropped from above 25,000 to less than 10,000 consumers per week.62 For the APCMH model to achieve its objectives of improving patient engagement and improving communication and collaboration between health care providers, patients and providers need to be motivated to use the available technology. A pilot of the APCMH model will provide a good case study of how the PCEHR (or something similar) can improve health outcomes, as well as provide an opportunity to consider what further enhancements or developments are required to the technology to increase functionality and uptake.

60 Gaming: when a system and the in built incentives are manipulated to achieve a desired outcome for the benefit of the individual doing the gaming.


62 Review of the Personally Controlled Electronic Health Record, December 2013, Figure 2.

In considering which outcomes to measure, the main aims of the APCMH model – improving access to care, the degree of self care, health outcomes and continuity of care – should be taken into account. The patient outcomes measured should capture at least one of these facets.

After determining the outcomes to measure, an appropriate tool needs to be chosen. Options discussed in this document already are the PROMs, PREMs and HEDIS measures. Whichever measurement tool is chosen, it will need to be validated for the Australian context and assessed for the level of administrative complexity and burden placed on users, which may inhibit its use.

Clear purposes for the measurement of patient outcomes will increase involvement in data collection and need to be clearly articulated to the patients, GPs and other people involved in providing the data. These could include improving patient care, evaluating the pilot, developing the APCMH model for broader implementation, and determining performance-based payments.

6.3.4 Testing the economic sustainability of the APCMH model

As well as using the pilot to test whether the APCMH model will be able to achieve improved patient outcomes, the pilot needs to test whether the payment system is financially sustainable for providers and funders of health care. It is particularly important that a pilot is undertaken. The operating structure of the General Practice and the style and extent of implementation will influence the financial impact of the APCMH model. Because General Practice structures are so varied, it is only through trialling the model that the impacts of larger-scale implementation can be estimated.

Determining the cost base of General Practice

To assess the impact of the implementation of the APCMH model on General Practice, understanding of the financial position of providers needs to be increased. Although the development of this paper involved collection of this information at a high level, the number of practices providing information and the variation in their practice structure was limited. To better understand the financial viability of providers, comprehensive work is needed to determine the overhead requirements for operating a General Practice under a variety of practice structures. Piloting the APCMH model will also enable an assessment of how changing the composition and work focus of staff in General Practice will influence their financial position.

Anticipated funding for the APCMH model

It is anticipated that funding for the APCMH model will be provided through funds that would have been previously spent on the patient through the MBS, PIPs and SIPs. This equivalent amount would require further analysis of the patient’s usage of the MBS, and the expenditure on the patient through PIPs and SIPs, and should also take into account the patient’s actual care needs, recognising the possibility that patients do not always receive the level of care required due to limitations on access, service availability or other barriers to care. This block funding would be used for the patient complexity payment and performance-based payments outlined in Section 3. The pilot would provide an opportunity to test what level of funding is required to provide comprehensive health care to patients with complex needs and chronic diseases and provide General Practices with an opportunity to be innovative in staffing models and funds allocation.

The potential costs of piloting the APCMH model

The investment required to support a trial of the APCMH model, and determine, measure and assess the relevance and impact of its goals, could provide flow-on benefits to the Australian health care system. Funds would be required to develop the infrastructure to implement and enable the pilot, and measure its impact.
The infrastructure required would include software to facilitate communication between providers, care planning, and patient management. Development and robust trialling of such software would have broader benefits for eHealth across Australia. Tools and processes developed for the APCMH pilot would also be beneficial for the broader health care system, such as those required for patient risk stratification and determining appropriate outcome measures, and techniques for measurement. Ongoing expenditure would be required to maintain the infrastructure including software, patient databases, and clinical tools such as clinical care decision pathways and translated information.

Anticipated benefits

Although initial investment will be required to establish the pilot of the APCMH model, there are long term benefits to be achieved – include savings that will be available for reinvestment (see Appendix C for further detail), and improvements to population health and the resulting gains in productivity for the economy.

- **Savings through reductions in potentially preventable hospital admissions**: The published literature on integrated care interventions generally show a reduction in hospital usage, with the average reduction in hospitalisations reported as 20%.\(^{64}\) In NSW alone, the achievement of a 20% reduction in potentially preventable hospital admissions over a ten year period would result in a saving with an estimated NPV of $229 million.

- **Savings through reductions in GP type ED presentations**: Literature indicates that better integration of care, as would be delivered through the APCMH model, can provide benefits in the form of reduced GP-type presentations at hospital emergency departments. Assuming a 23.3% reduction in GP type ED presentations, the ten year NPV savings achieved for NSW is estimated at $78 million.

- **Savings through reductions in the use of pathology and diagnostic imaging services**: It is anticipated that in the APCMH model where the patient has their care coordinated by a single provider, the number of pathology and diagnostic imaging (DI) services will decrease. If people who are currently high users of primary care services use 4 instead of 8 DI and pathology services annually, the annual savings across Australia are estimated to be $181.9 million.

- **Broader economic benefits of holistic and integrated patient-centred care**: EY’s measurements of the broad wellbeing of employees have found that people reporting low wellbeing scores are less likely to be engaged in the workforce. Specifically, this is seen through the increased use of long term sick leave, increased unemployment and increased use of rehabilitation services. By improving the wellbeing of patients, the proposed model could provide broader economic benefits through reduced absenteeism in the workforce, improved health-related quality of life, reduced average length of stay for hospital episodes, reduced unemployment, and reduced reliance on income support pensions for illness/injury and for rehabilitation.

The extent to which potential savings and benefits can be realised will largely depend upon the appetite for implementing the APCMH model and the supporting multimodal payment system outlined in this paper. Any targeted proof of concept, pilot or trial implementation focused on a targeted cohort of patients or sub-population should be expected to only partially realise the illustrative benefits outlined in this section. The use of an initial scoping and feasibility study would allow the quantification of the financial aspects of a pilot which could then be used to determine the economic sustainability of the APCMH model.

\(^{64}\) 50 Random Controlled Trials as identified in System Review of IC literature.
### Appendix A.
Stakeholder Consultation List

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aitken, Dr James</td>
<td>Health Centre Point Medical and Dental Centre</td>
</tr>
<tr>
<td>Bittar, Dr Hani</td>
<td>Richmond Road Family Practice</td>
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<tr>
<td>Burke, Michael</td>
<td>Kildare Road Medical Centre</td>
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<tr>
<td>Crampton, Dr Michael</td>
<td>Kable Street General Practice</td>
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<tr>
<td>Edwards, Dr Peter</td>
<td>Holroyd Medical Practice</td>
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<tr>
<td>Fasher, A/Professor Michael</td>
<td>The Practice</td>
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<tr>
<td>Hacquoil, Jim</td>
<td>Eastbrooke Blacktown GP Super Clinic</td>
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<tr>
<td>Ireland, Dr Malcolm</td>
<td>Upper Mountains Medical Centre</td>
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<tr>
<td>Lim, Dr Kean-Seng</td>
<td>Mount Druitt Medical Centre</td>
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<tr>
<td>McDonnell, Dr Louise</td>
<td>Hazelbrook General Practice</td>
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<tr>
<td>McQueen, Dr Linda</td>
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<tr>
<td>Nasr, Dr Toby Taleb</td>
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<tr>
<td>Peleologos, Dr Con</td>
<td>Alpha Medical Centre</td>
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<tr>
<td>Reath, Professor Jenny</td>
<td>School of Medicine, University of Western Sydney</td>
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<tr>
<td>Thornthwaite, Dr Wendy</td>
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<tr>
<td>Usherwood, Professor Tim</td>
<td>University of Sydney</td>
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<td>Whitehead, Mrs Denise</td>
<td>Twinkle Medical Centre</td>
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Appendix B.
Detailed sensitivity analysis that support scenarios shown in section 2.3

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<th>Change from base</th>
<th>NPV Profit / Loss ('000)</th>
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<th>3</th>
<th>4</th>
<th>5</th>
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2. Costs

| Proportion of MBS billings paid to GP contractors at 60% | -10% | $1010 | $842 | $685 | $538 | $401 | $273 | $154 | $42 | -$61 | -$157 |
| Proportion of MBS billings paid to GP contractors at 80% | +10% | -$346 | -$481 | -$607 | -$723 | -$830 | -$929 | -$1020 | -$1103 | -$1179 | -$1248 |
| Average encounters per GP at 6,417* | +10% | -$142 | -$283 | -$413 | -$534 | -$646 | -$749 | -$844 | -$931 | -$1011 | -$1085 |
| Average encounters per GP at 5,251* | -10% | $807 | $644 | $491 | $349 | $216 | $93 | -$22 | -$129 | -$249 | -$346 |
| Practice Managers Salary at 63,800 | 10.0% | $285 | $134 | $7 | -$137 | -$258 | -$370 | -$475 | -$571 | -$659 | -$741 |
| Practice Managers Salary at 52,200 | -10.0% | $380 | $227 | $85 | -$48 | -$171 | -$286 | -$492 | -$580 | -$664 | |
| Medical Receptionist/ Administration Team Salary at 47,000 | 10.0% | $278 | $127 | $13 | -$143 | -$264 | -$376 | -$480 | -$565 | -$665 | -$747 |
| Medical Receptionist/ Administration Team Salary at 39,000 | -10.0% | $387 | $234 | $91 | -$42 | -$165 | -$280 | -$386 | -$484 | -$575 | -$659 |
| Ratio of GPs to Practice Nurses at 5:1 | +1 | $60 | -$85 | -$220 | -$346 | -$462 | -$569 | -$669 | -$760 | -$845 | -$922 |
| Ratio of GPs to Practice Nurses at 3:1 | -1 | -$121 | -$263 | -$393 | -$515 | -$627 | -$730 | -$826 | -$914 | -$994 | -$1068 |
| Ratio of GPs to Reception Staff at 3:1 | +1 | $514 | $358 | $212 | $76 | -$50 | -$167 | -$276 | -$377 | -$470 | -$557 |
| Ratio of GPs to Reception Staff at 1:1 | -1 | -$212 | -$351 | -$480 | -$599 | -$709 | -$811 | -$904 | -$990 | -$1069 | -$1141 |
| GP FTEs at 5FTE | +2 FTE | $878 | $713 | $559 | $415 | $280 | $155 | $39 | -$70 | -$170 | -$264 |
| GP FTEs at 7FTE | +4 FTE | $1111 | $941 | $781 | $632 | $493 | $363 | $241 | $128 | $22 | -$76 |
| Practice Manager at 0FTE | -1 FTE | $811 | $648 | $495 | $353 | $220 | $96 | -$19 | -$126 | -$225 | -$317 |
| Practice Manager at 0.5FTE | -0.5 FTE | $572 | $414 | $267 | $130 | $3 | -$116 | -$226 | -$328 | -$423 | -$510 |
| Practice Manager 1.5FTE | +0.5 FTE | $93 | -$53 | -$189 | -$315 | -$432 | -$540 | -$640 | -$732 | -$817 | -$895 |

3. National Funding

| Patient Contribution | +10% | $400 | $246 | -$189 | -$315 | -$432 | -$540 | -$640 | -$732 | -$817 | -$895 |
| Patient Contribution | -10% | $265 | $114 | -$25 | -$155 | -$276 | -$388 | -$492 | -$587 | -$676 | -$757 |
| MBS Rebates | -10% | $202 | $68 | -$57 | -$174 | -$281 | -$381 | -$474 | -$593 | -$684 | -$771 |
| PIP/GPII Payments | +10% | $357 | $204 | $62 | -$70 | -$193 | -$307 | -$412 | -$510 | -$600 | -$683 |
| Rural Incentives | +10% | $334 | $182 | $41 | -$91 | -$213 | -$326 | -$431 | -$529 | -$618 | -$701 |
| Rural Incentives | -10% | $330 | $179 | $37 | -$94 | -$216 | -$320 | -$425 | -$519 | -$606 | -$692 |

* The result of changing the assumed ‘Average encounters per GP’ considers the number of encounters per GP as a cost driver without a corresponding change in funding or revenue.
Appendix C.
Potential savings achieved through implementing the APCMH model

The published literature on integrated care interventions generally shows a reduction in hospital usage, with the average reduction in hospitalisations reported as 20%. The alternative model outlined in this discussion paper is expected to achieve the same through GPs operating at the top of their licence in a model similar to the PCMH, to produce downstream benefits in the acute sector through reducing potentially preventable hospital admissions.

NSW Health savings through a reduction in potentially preventable hospital admissions

In NSW, there were 2,878,571 hospital episodes during the 2014 financial year. Of those, 181,350 were classified as potentially preventable hospital admissions. With an average cost per hospital separation of $4,918 and annual growth in public hospital episodes of 3.6%, the illustrative savings that could be realised through a reduction of 20% of potentially preventable hospital admissions is outlined in Figure 9 over a 10-year time horizon. The net present value (NPV) of the total estimated savings over a 10-year period from a 20% reduction in potentially preventable hospital admissions in NSW is estimated at $229 million.

Figure 9: Net Present Value of Benefits from a 20% reduction in Potentially Preventable Hospital Admissions

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65 50 Random Controlled Trials as identified in System Review of IC literature.
66 AIHW Australian hospital statistics – Admitted patient care 2013-14
67 AIHW Hospital performance: cost per case mix-adjusted separation
NSW Health savings through a reduction in GP-type emergency department presentations

Similarly, a scan of the relevant academic literature indicates that better integration of care, as would be delivered through the APCMH model, can provide benefits in the form of a reduction in GP-type presentations at the emergency department in hospitals.

In NSW there were 2,278,591 total ED presentations during the 2013 financial year; of those ED presentations, 682,342 were classified as GP-type ED presentations. The average cost for a non-admitted ED presentation is $422 and the annual growth in ED presentations is 2.5%. Figure 10 illustrates the NPV of the total estimated benefits from a 23.3% reduction in GP type ED presentations over a 10-year time horizon. The total estimated savings over the 10-year time horizon from a reduction in ED presentations is $78 million.

Figure 10: Net Present Value of Benefits from a 23.3% reduction in GP-Type ED Presentations

The combined potential benefits emerging in the NSW acute sector as a result of the APCMH model for care from both a reduction in potentially preventable hospital admissions and a reduction in GP-type ED presentations over the 10-year time horizon has a NPV of $307 million.

Commonwealth savings from reductions in utilisation of pathology and diagnostic imaging

In addition to the illustrative savings from the APCMH model expected to emerge within the NSW acute sector, it is anticipated that through regular contact with one trusted GP practitioner, compared to frequent encounters with a range of GP practitioners, additional savings will be realised for the Commonwealth through a reduction in pathology and diagnostic imaging through a better understanding of patient history, reduced duplication of testing, and less reliance placed on exploratory diagnostic imaging or pathology.

To provide an illustration of the potential size of this benefit, this paper considers the scenario where one in five Australians classified in either the “very high” GP attendance group (i.e. 20+ visits) or “frequent” GP attendance group (i.e. 12–19 visits) are managed down to the “low” (i.e. 1-3 visits), “occasional” (i.e. 4-5 visits), or “above average” (i.e. 6-11 visits) GP attendance groups. In this scenario, the average number of pathology and diagnostic imaging services processed per Australian would decrease from the average 8.237 for the very high and frequent GP attendance group to the average of 3.999 for the low, occasional, and above-average GP attendance groups. With an average cost of pathology and diagnostic imaging services of $611 for those in the very high and frequent GP attendance group, this would generate an estimated saving for the Commonwealth of $181.9 million.

68 AIHW Australian hospital statistics – Emergency department care 2012-13
69 IHPA National Hospital Cost Data Collection Australian Public Hospitals Cost Report 2011-2012
70 National Health Performance Authority – Healthy Communities: Frequent GP attenders and their use of health services in 2012-13
Appendix D.
Experience of WentWest

WentWest has been leading and supporting General Practice and primary care in Greater Western Sydney for well over 10 years. It can harness this experience in order to implement the APCMH model.

D1. Experience in integrated care

In addition to the experience WentWest have gained in their partnership with Western Sydney LHD in delivering the integrated care demonstrator site, WentWest have been involved in the HealthOne Mount Druitt integrated care programme and are supporting the implementation of Patient-Centred Medical Homes.

HealthOne Mount Druitt integrated care programme

HealthOne Mount Druitt (HOMD) is an integrated care programme that identifies hospital patients requiring additional support to prevent readmission into hospital. The support is provided by a GP Liaison Nurse who acts as a central contact point for referrals. An evaluation of HOMD found reduced emergency department presentations, patients reporting feeling more supported, more referrals to allied health and psychosocial services, and GPs feeling more supported to provide higher quality care. WentWest’s experience with HOMD has also strengthened the relationship between the Local Health District and GPs in Western Sydney – an advantage in implementing the APCMH model through better understanding the requirements of care to treat patients in the community. It is also possible that patients identified through the HOMD as requiring ongoing support may be eligible for transition to the APCMH model once the primary cause of their hospital presentation has been resolved.

Patient-Centred Medical Home implementation

In 2014, WentWest enrolled 15 General Practices to operate under the Patient-Centred Medical Home (PCMH) model, which promotes enhanced patient access to comprehensive, coordinated, evidence-based and interdisciplinary care. As part of the PCMH, WentWest and the MacColl Center have adapted the PCMH Assessment tool, which allows practices to assess their current level of “medical homeness” and identify opportunities for improvement. This tool can also be used by all General Practices, care providers and the PHN to track progress of patients enrolled in the APCMH model. Other tools and education material developed by WentWest for the implementation and growth of the PCMH can similarly be used for the APCMH model.

D2. Experience in building capability and capacity

Linked Electronic Health Record

LinkedEHR is a software program used to manage patients with a care plan who are seeing multiple health care professionals. By using the Shared Care Plan generated by the GP within the LinkedEHR system, goals, targets and referrals are recorded so patients receive the right level of care. Health care providers and participants are able to view the Shared Care Plan at any point in time. This tool can be used under the APCMH model by GPs for their enrolled patients, to facilitate communication between providers and maintain a record of the agreed care plan. WentWest are expanding software capability to include additional patient details such as clinical measures of health, allowing LinkedEHR to be a comprehensive reference point for reviewing patient progress. Development work is already underway for a pilot in diabetes in partnership with Telstra Health, Western Sydney LHD, and Diabetes NSW.


72 “Medical homeness” is the extent to which a practice is able to provide comprehensive and continuous medical care to patients with the goal of improving health outcomes.
Health Pathways
Using evidence-based recommendations and local knowledge of available services, WentWest have developed Health Pathways to guide treatment for selected conditions. The pathways were developed with local clinicians to improve their applicability. Acceptability and utilisation have been further encouraged through payments that are conditional on clinicians referencing the pathways. Health Pathways and the underlying information will be valuable references for GPs delivering care in the APCMH model, promoting the use of evidence-based medicine and providing information about local service providers.

Experience as a Regional Training Provider
WentWest is a Royal Australian College of General Practitioners Accredited Regional Training Provider, offering vocational training for GPs in Western Sydney. Their recognition as a training provider demonstrates the commitment of WentWest to delivering high-quality training and the recognised importance of training health professionals to help meet future resource requirements. These are qualities that WentWest will take forward in developing capability and providing opportunities for ongoing development under the APCMH model.

D3. Experience in monitoring and improving quality in service delivery
WentWest has assisted General Practices in taking up use of the Pen Clinical Audit Tool (Pen CAT) to monitor patient health and identify opportunities to improve patient outcomes. The information gathered can be aggregated for use at a regional level to inform planning and commissioning. These capabilities will continue to be available to practices to monitor patients and identify areas for intervention under the APCMH model.

D4. Experience in commissioning services
WentWest has developed a commissioning framework that includes the processes of needs assessment, specification of services required, contracting of services, and review and evaluation. WentWest has used this framework to commission services for the Access to Allied Psychological Services programme. Feedback from both patients and GPs show overwhelmingly positive levels of patient satisfaction and an improvement in patient outcomes (as reported by the GP). WentWest would be able to employ the same commissioning framework under the APCMH model to ensure appropriate and sufficient service provision.
Appendix E.
Reliance and Limitations

This report has been prepared solely for the purpose outlined in Section 1 and only considers issues pertaining to the scope outlined in Section 1 of the report. No further analysis or consideration of additional issues outside the scope of this report or subsequent to the date of this report has been completed.

This report outlines illustrative scenarios, alternative models of care, and alternative payment systems for primary care on the basis of a desktop review of data and information provided by WentWest and a consultation process with key stakeholders identified by WentWest management. Consequently the findings and recommendations outlined in this report rely on:

- Accuracy of the documentation provided by WentWest;
- Accuracy of the data and other information provided by WentWest;
- Subjective professional judgment of WentWest applied in identifying stakeholders required for the consultation process (see Appendix A for a detailed list of stakeholders consulted); and
- Accuracy of the subjective professional opinion expressed by stakeholders during the consultation process.

It is not suggested and should not be assumed that documents or data and other information received from WentWest, instructions on stakeholder engagement provided by the management of WentWest, or opinions expressed by stakeholders throughout the consultation process have been assessed for accuracy or completeness other than to be tested for internal consistency in producing this report.

The statements and opinions provided in this report are given in good faith and in the belief that such statements and opinions are not false or misleading. The conclusions are based on the assumptions stated and on information extracted through the stakeholder consultation process and information provided by WentWest. This report does not constitute an audit, assurance, or an opinion of the cost-modelling approaches used historically by WentWest or of any other matter contained within. This report has been limited in scope and time and it is stressed that more detailed procedures may reveal issues that this report has not.

The report is based on data received as at 28 October 2015, the illustrations presented within this paper are based on the existing Western Sydney primary care operating environment, profile of patients, model of care, service mix, burden of disease, health center locations, and other environmental factors that exist at the time of development. The illustrations do not constitute a longitudinal study of matters contained within and consequently if conditions change substantially from current the analysis, findings, and recommendations may require updating to maintain accuracy.

A number of assumptions have been made in developing the strategy and approach as is commonly required in any form of analysis. Assumptions are based on past information, data and trends (where available) and the subjective professional judgment of WentWest subject matter experts received during stakeholder consultations. However, the past is not necessarily a good indication of what will occur in the future and assumptions should be monitored over time and adjusted where experience indicates that this is required.

Elements of the illustrations outlined in this report are based on quantitative analysis which cannot capture all aspects of a business scenario or the future. Care should be taken to consider impacts on the operating environment and key assumptions should the findings or recommendations outlined in this report be extrapolated or used to describe an alternative scenario to that existing currently at WentWest.
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