Paper for the National Health and Hospital Reform Commission

Models of primary and community care in 2020

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Introduction

This paper has been written to share our lessons from our experience in the past 30 years in the health system. It takes, principally, our lessons as providers and policy-makers, rather than our lessons as consumers.

We, consciously, do not address the fundamental and substantial issues which face Aboriginal and Torres Strait Islander peoples and the nation of which they are part, as we believe that it is important for Indigenous Australians to speak themselves to the issues and solutions they see. We trust that the National Health and Hospital Reform Commission (NHHRC) will have commissioned a paper from Indigenous leaders in the Aboriginal community controlled health sector.

Our paper proposes an Australian environment in 2020 of which the health system is part. It then focuses on our proposition as to the nature of general practice and primary care at the time.

The paper takes this context, and outlines implications for health reform in order to maximise the chance of health for all Australians, supported by a patient-centred, economically responsible, safe and high quality health system.

1.1 The benefits of 'linkage', 'coordination' and 'integration'

Because the terms are used differently by different authors, we strongly suggest that the NHHRC consider consistent use of the language around health service 'linkage', 'coordination' and 'integration'.

In this paper, we distinguish the following three mechanisms of action:

- Linkage – the 'light touch' mechanism of bringing patients in contact with existing services and programs (linking them), with few formal mechanisms to achieve and maintain the linkage; and not disturbance of the existing funding programs, nor of the eligibility/entitlement criteria
- Coordination – the deliberate and systematic process of creating and maintaining patient involvement with services (i.e. an active, sustained process at the consumer end, with little or no disturbance of the existing funding programs and eligibility / entitlement criteria)
- Integration – the deliberate disturbance of funding programs and rules, resulting in the creation of new programs of services where the resources of multiples systems are pooled.[1]

While coordination and integration are, superficially, worthy goals, careful consideration needs to be given to the costs and benefits of adjusting our current system to improve coordination and integration.[1]

A well-functioning multidisciplinary team which is empowered to bridge across programs and systems may make a substantial contribution to the health of individuals with complex needs.

A more comprehensive approach to integration requires the de-construction and re-construction of operational domains such as information management, management of funds from different sources, and interagency policy and planning. The transition and transaction costs of efforts of integration, when compared to the benefits that flow from integration, makes the consideration of where and how to integrate particularly important.

The difficulties with this approach are demonstrated in the Coordinated Care Trials, where, even on a trial basis, many stakeholders (including governments) were unwilling to 'cash-out' funds to a pool designed to create a newly integrated approach, and were required to both 'cash-out' some programs and still ensure patient choice in a system which provides subsidies directly to patients.

Although it may be conceived of as pessimistic, we would suggest, pragmatically, that the cost/benefit analysis (including tangible and intangible costs and benefits) is against widespread de-construction of programs and (re)integration in our established and federated health system.

2 The environment in 2020

In this section we outline the broad social and political environment which we believe will prevail in 2020.

2.1 International context – trade ties

We anticipate that Australia will continue to strengthen its multilateral and bilateral trade ties. Multilateral and bilateral trade ties have a number of important implications for our health system.

2.1.1 Workforce mobility

Trade ties will influence the inflow and outflow of the workforce, putting further pressure on the Australian capacity to regulate the quality of its workforce, and putting pressure on its capacity as a competitor in the international market for health labourforce.

2.1.2 The price and availability of medicines and other technologies

It has been argued that the Australia-United States Free Trade Agreement includes intellectual property provisions that will delay the introduction of cost-effective generic drugs.[2 3] Trade ties will bind Australia to international trade arrangements which may compromise our ability to change our position on patent laws or have other adverse effects on pricing of medicines.

2.1.3 Risks to the community's health

Trade ties will encourage easy travel across borders (potentially raising concern for a pandemic of international origin, or the breaching of key agricultural production through the introduction of as-yet-seen pests)

In this context, we argue that there is a significant health-related risk/benefit analysis attendant on our continuing negotiation of and participation in multilateral and bilateral trade agreements.

2.2 International context – the networked information economy

We anticipate that Australia will also be profoundly influenced by the continuing emergence of the networked information economy. [4]

2.2.1 Participation in the development and transfer of information

This phenomenon is built on decentralised (and worldwide) individual participation in the development of information. It is facilitated by a radical change in the cost of computerisation (evident in the last decade or more) leading to a fundamental re-shaping of

participation in and production of information. Large- and small-scale cooperative efforts (exemplified by *Wikipedia*) provide the opportunity for people to access high quality peer-produced information about an effectively infinite diversity of subjects.

The emerging networked information economy challenges the authority of health professionals as sources of high quality information by creating international networks which include health professionals, consumers, scientists and others in 'peer production' (e.g. having a doctor at Harvard, a scientist in Chile and a consumer in Botswana able to participate in the same discourse). This networked information economy provides the capacity for individuals to do more for and by themselves, to cultivate 'communities of commonality' and to operate outside formal organisations as we now conceive them. Because information and knowledge play a significant role in economic opportunity, human development and health, a radically different information economy has the potential to enhance freedom and counter inequality and injustice.

> "We are in the midst of a technological, economic and organizational transformation that allows us to renegotiate the terms of freedom, justice, and productivity in the information society. How we shall live in this new environment will in some significant measure depend on policy choices that we make over the next decade or so. To be able to understand these choices, to be able to make them well, we must recognize that they are part of what is fundamentally a social and political choice – a choice about how to be free, equal, productive human beings under a new set of technological and economic conditions. … As social policy, missing an opportunity to enrich democracy, freedom, and justice in our society while maintaining or even enhancing our productivity would be unforgivable." [4]

We see the networked information economy playing a strong role in prevention by providing a vehicle for the distribution of tailored and credible information. We anticipate that it will have a significant role in secondary prevention by establishing communities of interest and high quality peer-produced information, allowing people to compare their health status, progress in health interventions and share tips and tools for health maintenance.

On the other hand, we see the networked information economy as playing a role in strengthening the relationship between community members and their general practice. Patients are already searching for information about their health (e.g. visiting the Beyondblue website) and bringing their ideas to their general practitioners (GPs). We anticipate that the future generations of GPs who have grown up with the technology will further embrace this peer-produced information model with their patients – confirming diagnoses, disconfirming unnecessary fears, and assisting in the development of tailored health maintenance programs.

We also anticipate that patients will continue to seek strong bonds of 'relational continuity, especially at times when their illness is unexpected, emotionally distressing or severe. [5]

2.2.2 Potential changes to patent law

Patent law is a legislative artefact of the 'industrial', rather than networked information economy. Access to the benefits of ongoing technological change in areas such as medicines, diagnostic imaging and pathology is mediated by patent law. Pharmaceutical patents, in particular, will be a key area of dispute. It is difficult to predict a future in this arena, given the highly contested positions, and we have chosen to take a relatively revolutionary position – that many patent protections will have been unbundled. We acknowledge, however, that this is a scenario which may be challenged by the readers.

2.3 National context

2.3.1 Federation

We anticipate that Australia will continue to be a federation, with little change to the constitutional powers for health and social services between the Commonwealth and States.

Where there are multiple 'principals' in a health system, there is sequentialty of decision-making and the opportunity for the use of 'veto' power.[6] In the United Kingdom, the electoral system and other constitutional features allow government to propose and enact policy changes without having to consider an opposing governmental chamber or court. In contrast, the speed of reform in Australia is influenced by the degree to which the Australian 'system' can develop mechanisms that create and maintain consensus amongst the various jurisdictions. Adaptation, innovation and change in the Australian health system are shaped by this pluralist system and the degree of consensus. It is also influenced by the degree to which the stakeholders understand the essence of general practice and its contribution to the health system, population's health and economy as a whole. Without widespread consensus, change/reform is slow.

We do not anticipate substantial constitutional reform in Australia. We anticipate that jurisdictions will continue to have competing interests. As a result, despite goodwill and the current cooperative federalism, we anticipate that there will continue to be ongoing mis-alignment between eligibility and entitlement criteria for Commonwealth and State programs, and between private and public health service provision. In this context, there will continue to be a strong demand for coordination, especially for the people with chronic and complex illness.

2.3.2 Global warming

We anticipate that 'global warming will have a pervasive impact on the national economy, and more directly on health through areas like employment and food security. In the time provided to prepare this paper, we have not been in a position to consider the ways in which this will impact on our policy analysis. We do, however, believe that such a piece of analysis is important for the NHHRC.

2.3.3 Medicare

We anticipate that Medicare will remain, and that the strong public support for federal government subsidy to consumers for their health services, and consumer choice of provider will remain. The alternative is an incremental movement to direct funding of private health practitioners by the federal government (which has been evidenced in recent initiatives such as the payment of the bulk-billing and e-commerce incentives to doctors).

We anticipate that public and professional support for patient subsidy through Medicare will remain strong. This provides some opportunities, and some constraints in terms of the options for reform, and we cover these later in this paper.

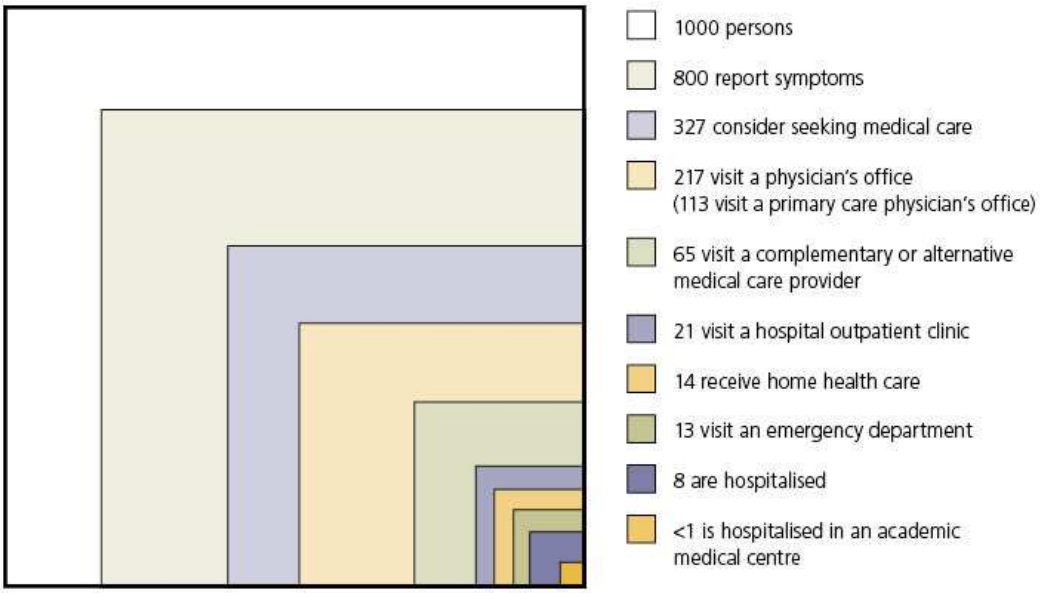
2.3.4 Public-private mix

We anticipate that Australia's mix of public and private healthcare provision will remain. This will create a demand for good coordination, and also provides an opportunity for innovation, as the private sector may be a sound place for experimentation in some new models of care.

2.3.5 Morbidity and mortality

We posit our policy analysis in widely available analyses such as those done by the Australian Institute of Health and Welfare[7], which include an ageing population and the continued growth of 'diseases of the wealthy'.

We anticipate, however, that the primary care sector will continue to be the source of health care for many people. The diagram below illustrates this.



Results of a re-analysis of the monthly prevalence of illness in the community and the roles of various sources of health care. Each box represents a subgoup of the largest box, which comprises 1000 persons. Data are for persons of all ages.

Reference: Green LA, Fryer GE, Yawn BP, et al. The ecology medical care revisited. NEJM 2001;344:2021–5.

2.3.6 Health inequality

In part because of the continuing presence of major structural elements in Australia, and despite the influence of the networked information economy, we anticipate that the 'inverse care law' will remain, together with significant inequities in the health of individuals and populations within the Australian community (including people with disability, people with mental health concerns, and Aboriginal and Torres Strait Islander people).

3 General practice – a decade of development

The international evidence increasingly points to the benefits of generalist training and the inefficiencies, costs and risks of further fragmentation of care[8], and convincingly illustrates that effective, comprehensive, integrated primary care underpins cost effective health systems.[8 9 10]

General practice care has been shown to be extremely cost-effective, offering fewer tests, higher patient satisfaction, less medication use, and lower care-related costs.[11, 12] Adequately resourced general practice can reduce the pressure on our hospitals and

emergency departments[13, 14, 15] by delivering high quality preventive care, health promotion [16, 17, 18] and coordinated chronic disease management.[19] The availability of general practitioners (GPs) has been shown to significantly reduce health disparities, particularly for areas with the highest income inequality.[20, 21, 22] Strong general practice with multi-disciplinary teamwork and defined delegations between primary health care professionals will be a key strategy in tackling the workforce shortages affecting health care provision across Australia.

Doctors who restrict their clinical scope have been shown to deal poorly with co-morbidity[23.] However, escalating co-morbidity will be an increasing feature of Australia's ageing population. Specialist performance is better in patients referred from a primary care physician, and in the United States where there is no process of referral to consultant specialists, one-third of excessive costs (when compared to similar industrialised countries) is attributed to the performance of unnecessary and non-indicated procedures.[24]

When we look forward to 2020, we take into account the momentum that has been gained since 2000. We believe that the past 10 years have positioned general practice on a trajectory that will see ongoing improvement in the consistency of the care provided; and in a more pivotal place in health care than previously acknowledged outside the craft.

There is a high (and increasing) penetration of clinical information systems and their use in Australian general practice.[25]

Subsequent to the incentive program to employ general practice nurses, there has been a marked increase in the number of general practice nurses in Australia. The estimated number of practice nurses increased 59% between 2005 and 2007.[26]

Since the mid-1990s when general practice accreditation began, the craft has embraced the notion of peer-review, and the majority of general practices are accredited against the RACGP's *Standards for general practices*.

Other quality initiatives, such as the *Building on Quality* project[27] and the 'collaboratives'[28] also show that general practice has capacity and desire to engage in quality improvement.

We believe that the current suboptimal quality in general practice should be seen in an appropriate historical context, and that there are strong indications that structures are in place to see ongoing improvement in the reliability of the quality of care in general practice.

Continuity of care is a hallmark of general practice, and a component of what makes general practice effective in health and economic outcomes. We see this as continuing in 2020.

Continuity is seen as having three threads – informational continuity, 'management' continuity, and relational continuity.[29]

'Informational continuity' requires a continuous strand of patient health information. In 2020, we anticipate there being an integrated e-health record for patients. In this record, we anticipate both patients and health professionals being able to record their actions and views. We anticipate, however, that there will continue to be a need for a coordinator of the patient care, especially for patients who cannot self-manage. As a result, we see an argument that the record be organised such that it is amenable to general practice care.

'Management continuity' is the action of 'being on the same page' about the management of a patient's care – not working at 'cross purposes'. The complexity of some patient care, together with the likelihood that most patient care will continue to occur in the community, are amongst the reasons for our view that the clinical governance for patient care needs to be led by a GP.

'Relational continuity' is the idea of a continuing relationship – the idea of 'my GP'. In the TCHII Trial, the restructuring of the Service Coordinator's caseload and GP assignment was seen by some Service Coordinators, GPs and clients as disruptive to the continuity of care.

Research on patient preference strongly suggests that patients find personal continuity highly important when dealing with serious and emotional conditions. From the patient's perspective, therefore, it appears that the challenge is to offer (personal) continuity at those moments that count. [5]

4 Proposals for reform

4.1 Support voluntary patient lists at practice level

We support the introduction of voluntary patient lists.

We propose that there be an incentive for GPs, general practices and patients for such enrolment. The incentive for GPs might relate to the more challenging aspects of general practice, for example, seeing patients 'after hours', or providing home visits (including visits to residential aged care); and be paid in the form of a Service Incentive Payment (SIP). The incentives for practices might relate to the achievement of targets in population health areas such as (childhood and adult) vaccination, cervical screening recording of smoking status, and for structured care in high prevalence illnesses such as diabetes. A combination of incentives (including incentives for patients) is also useful, as is suggested in the evaluation of the General Practice Immunisation Incentives GPII).[30]

Such incentives are, unambiguously, a 'pay-for-performance' model. The evidence of the benefits of 'pay-for-performance' is mixed, as we discuss later in this paper. There are not yet robust models for risk-adjustment appropriate to the Australian context, yet such models will be needed to ensure that the 'inverse care law' does not operate. In that context, we strongly urge additional practice grants based on need (not on geography/location) to offset the documented effect whereby sites with the most challenging populations fail to gain benefits compared to their effort in achieving targets.

Additionally, we anticipate that Australians will continue to support their choice of health service provider under Medicare. In that context, we would caution against the use of penalties for patients who seek care outside their enrolment arrangement.

Finally, we have reflected on the point in the health system which would be the optimal 'holder' of a list. We take the view that it is less useful to have individual practitioner lists, as this would militate against team-based approaches in general practice. We are concerned about the use of Divisions as the entity, as their boundaries often diverge from those of other health services (e.g. authorities and districts in State/Territory systems); and we believe that the profession would not support such a model. As our overall model posits general practices as the hubs of healthcare for communities, we believe that it would strengthen this model to have patient lists aligned with general practices.

We propose that two areas be the starting point for the development of voluntary patient lists. The first is patients who have chronic illness, as it is likely that these patients will have an established relationship with a general practice. The other starting point we propose is families with (any) children below school age. We believe that continuity and access for these members of our community is also important, and that many parents would understand the value of having one 'family practice'.

We believe that a trial of voluntary patient lists for families with pre-school children and for people with chronic illness could begin in the short term, provided that the relevant organisations were supported to undertake the design of the initiative.

4.2 Build capacity in general practice and primary care

We argue that it is essential to build capacity in general practice and primary care.

In summary, that capacity involves:

- … Human capital
- … Physical capital and equipment, and
- … Information.

4.2.1 Strengthen teams in general practice

Workforce sustainability remains a key issue, and we anticipate this to be the case in 2020. The motivation and capacity of providers within the system are of key importance, and reflect the adequacy of levels and mix, role changes and their complexity / acceptance.

To the degree that patient care involves groups of people working together, research indicates that a group with better teamwork tends to perform better than one lacking teamwork. In a variety of industries, research has found that team cohesiveness is associated with effectiveness in carrying out the team's tasks.[31] Thus, teamwork is 'worth it' as it is associated with better quality of care, lower costs for equivalent quality, or improved workplace satisfaction.

Teams are more than groups of people working together.[32] Specific activities are needed to develop cohesiveness and collaboration. For example, general practitioners have indicated that a lack of leadership skills has inhibited their using general practice nurses in an optimal fashion.[33] As a result, the development of teams involves the commitment of resources. Additionally, 'hand-overs' or 'hand-offs' between team members is associated with clinical risks to patients. Thus, the activities of teams, and potential increase in the number of 'hand-overs' require attention to ensure that patient safety is maintained or enhanced. This requires resources.

Although general practice is sometimes seen as 'mono-cultural' (i.e. focused exclusively on the general practitioner), workforce challenges offer an opportunity for innovation. We support principles that have been articulated for the safe expansion of workforce and roles in Australian general practice[34], and anticipate that many general practices will continue their development towards multi-disciplinary teams.

Consumers do not wish to see nurses in place of doctors, have nurses reduce their access to doctors, or have nurses be responsible for diagnosing 'life threatening or serious conditions'.[35] Consumers, although having misconceptions and gaps in their knowledge around the actual and potential roles of nurses in general practice, see nurses adding value to General Practice by carrying out a limited number of roles.[35]

We anticipate that the role of general practice nurses will continue to develop and continue to be embraced within general practice. By 2020, we see it as being a specialised craft within the nursing domain, and would argue that, in this manner, it will reflect general practice. Nurses will have specific interest areas in which they are more skilled (e.g. paediatrics, respiratory care or population health), and will continue to take a 'whole-of-life' approach – dealing with a range of ages, and health issues from prevention through to chronic disease management and palliative care. We anticipate that the role of nursing research within

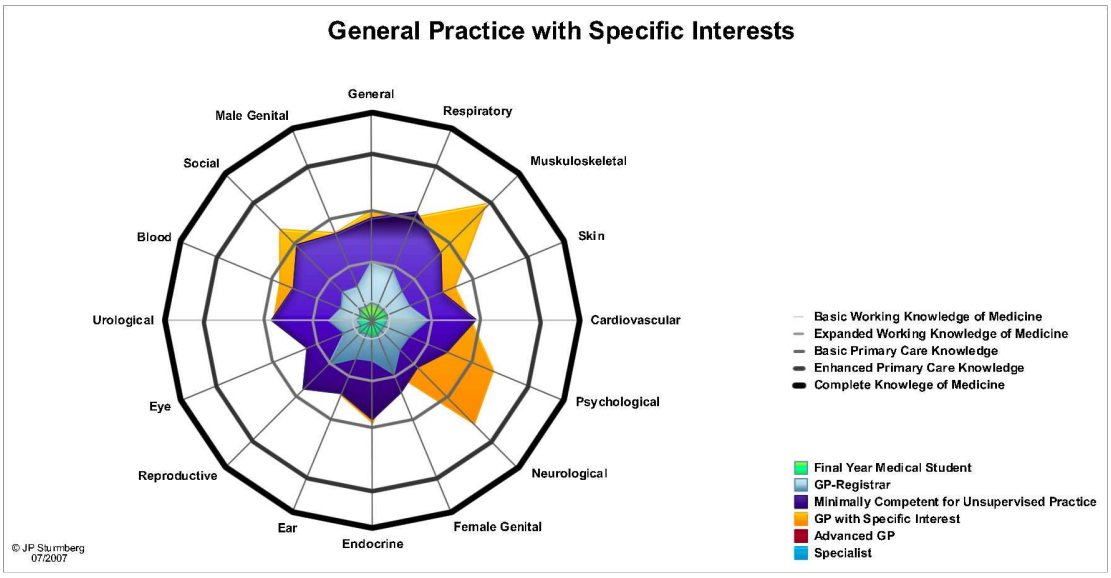
general practice will continue to grow, and that the enhanced availability of high quality data will encourage new research in general practice.

Although there are advantages and disadvantages to the models of payment, we would support a broad payment for nurses in the MBS, and payment through a grant-based / incentive-based model which allows substantial flexibility in the role of general practice nurses. We believe that this approach best underpins the desired diversity in practice role for general practice nurses.

In this context, it will be essential that as many nurses and allied health professionals as possible are provided with training opportunities that expose them to the nature and role of general practice. We would propose, particularly, that where appropriate nurses are present, that nursing education include a general practice rotation.

4.2.2 Support specific clinical interests within general practice

At some point, through continuing their mastery, some GPs may recognise (and/or their peers and patients may recognise) that these GPs have become relatively expert in the area. This is illustrated in the diagram below.



Some GPs may abandon their generalist skills and concentrate solely on their interest area. Rather than have them leave general practice, we believe that it is important to find mechanisms to support the work of these doctors within general practice, by encouraging their work with their peers and patients as part of a network.

4.2.3 Re-integrate 'community health' with general practices

Despite our overall reticence to engage in 'integration', an area which we consider worth re-integrating is 'community health'.

This area, as distinct from domiciliary nursing and other home and community care services, could be better aligned to the catchments of general practices.

We propose that the Commonwealth resources in State/Territory community health centres be devolved to local general practices – strengthening their capacity in nursing and allied health, in prevention, education and clinical care. We would propose that State/Territory

funding be re-directed to home and community care services or used to strengthen areas in which the State/Territory have principal responsibility.

The constellation of community health centres and their functions vary across States and Territories, however, where there are general practice elements in community health centres, it appears that there is a consistent move to make these 'pay their own way'. These community health centres could be owned and run by local community organisations.

General practice continues to be a first point of contact with the health system for many Australians. As a result, in an environment with sufficient resources, general practitioners and general practice nurses will have existing relationships with many members of the community. This 'relational continuity' provides a vehicle for preventive care, acute care and the management of chronic illness.

We argue that the appropriate location to enhance capacity is in general practice, for the following reasons:

- Continuity of care will be central to improved outcomes
- It is difficult to 'work for two masters' (a 'community health centre' and a general practice, for example)

In the TCHII Trial, GPs suggested that the majority of the health assessment was best initiated and completed by Practice Nurses. GPs in the TCHII Trial also believed that Practice Nurses were more able to give patients their full attention for an extended period of time, usually exceeding a standard consultation time for GPs.

In the TCH II Trial, patients reported that there was confusion between the Service Coordinator and Practice Nurse roles. Many Practice Nurses reported a perceived lack of role description or role certainty. Service coordinators reported that their workload was heavy, and that their role was more suited to a full-time dedicated role. Service coordinators played a pivotal role in care and service coordination throughout the trial; however they consistently reported that they were over-stretched, in part as a consequence of having their role split between the trial and their host community nursing organisations.

We discuss the caseload volume component of being 'over-stretched' later. We propose that the problem of having demands from multiple organisations (e.g. general practices and employers) be resolved by devolution of community health into general practice.

In the TCHII Trial, having service coordinators located at their employers (community and domiciliary nursing services) and working with/for general practices and their patients was difficult. Service Coordinators reported variability in the resources provided from their host agencies and a lack of clarity in knowing what resources and facilities they could expect from their involvement in the trial (i.e. what belonged to the 'trial' and what belonged to the host agency, such as vehicle use).

We understand that there is concern about the availability of 'bulk-billed' services to communities which are served by community health centres (especially those with GPs). We propose that other forms of incentives (such as an extension of retention payments to GPs beyond rural areas) and appropriate 'weighting' of incentive payments to practices would achieve equitable access for disadvantaged communities. Indeed, equitable access is a signal of the effective and well-targeted investment of such support payments.

We would propose that State funding in these services be integrated with maternal and child health services, and that the distribution of these services be considered in light of the alignment with local general practices.

We understand that there may be some concerns about continuing professional development of the health professionals, and would propose that models of clinical networks such as those which exist in physiotherapy, psychology and general practice could form the basis of strong professional development.

We propose that there be a small number of 'specialist' sites, where consultant medical specialists and consultant allied health and nursing practitioners would operate, in a similar case management model as is used in settings such as multi-disciplinary pain clinics or specialist geriatric or child health services.

4.2.4 Determine, plan for and support future capital demand in general practice and primary care

Unlike the public hospital sector, there has been no system-wide planning which would:

- … determine the future demand for capital infrastructure in general practice and primary care
- … create a plan for meeting the capital need, and
- … develop methods to support capital investment.

We believe that this is an essential element of a long-term plan for the health system, and are aware that the Royal Australian College of General Practitioners has offered to lead development of such a plan.

We believe that a capital planning initiative could be initiated in the short term if the relevant organisations were supported to develop a methodology for the activity.

4.2.5 Data, information and wisdom

We are not experts in the area, but strongly support a systematic expansion of the information management capacity and capabilities in general practice. They are an essential platform for safe, efficient and effective care across the health system.

We are aware that the only reason the RACGP did not introduce a standard requiring the use of practice-population data for quality improvement in general practice was that, in 2005 when the last edition of *Standards for general practices* was launched, there were insufficient information reporting systems which would allow efficient extraction and reporting of aggregate data. Such systems are now readily available.

While we strongly support interoperable systems, we are concerned by the role of proprietary software in Australia; and believe that the role of proprietary software (especially in the context of the networked information economy) needs specific consideration.

Even with substantial resources and goodwill, there were significant delays in the delivery and quality (completeness and accuracy) of Medicare Australia data, which impacted on the financial management of the Coordinated Care Trials. This suggests that there is a still a long road ahead in the use of data.

4.3 Support enhanced models of acute care in the community

General practice undertakes a wide-ranging role in prevention, the management of minor, short-term illness and the management of chronic disease.

General practice also plays a role in the management of more complex short-term and long-term illness. This role is constrained, in part, by

- … infrastructure barriers (such as the size of treatment and observation rooms),
- … workforce shortages (such as the limited access to general practice nurses), and

- … structural barriers (such as the absence of, or poor payment, for activities such as pathology testing).

We argue that there is enormous capacity to increase the management of acute health needs in the community (e.g. the management of community-acquired pneumonia) which would otherwise require hospitalisation.

The private health insurance area offers an immediate opportunity to improve patient and economic outcomes by facilitating this.

4.3.1 Technology horizons come to general practice

There are an increasing number of examples in which technology has advanced such that care previously provided by consultant specialists can now be undertaken safely in general practice.

The most obvious example is in International Normalised Ratio (INR) testing. The technology has advanced far enough for consumers to be able to purchase the testing equipment (sometimes with support from private health insurers), and undertake this testing at home.

For consumers who can manage this, the benefits in convenience and cost are substantial. For consumers who need support, the technology could be used within a general practice consultation. However, there is no subsidy in the MBS for this to occur, creating a disincentive to do this (and especially to 'bulk-bill' a consultation in which it occurs).

Other examples include the use of intravenous antibiotics for cellulitis, complicated urinary tract infection (UTI), (confirmed) deep vein thrombosis (DVT), community-acquired pneumonia and other illnesses; and the use of intravenous cancer treatments.

4.3.2 Funding barriers

Although legislative and regulatory change in 2007 opened up opportunities for people with private health insurance, the Quality and Outlays Agreements in Pathology and Radiology, and the Pharmacy Agreement between the Pharmacy Guild and Australian Government provide impediments to the safe and efficient uptake of advancing technology.

We argue that there is an opportunity for safe, efficient and effective innovation in health care within these arenas.

We are confident that initiatives which involve a collaboration between general practice and private health insurers are viable in the short-term, and would seek the support of the NHHRC in their establishment.

4.4 Establish a national approach to the management of chronic illness

We propose a model of structured (coordinated) care for people who have been diagnosed with a chronic illness. The model includes:

- … Clinical governance led and coordinated by the patient's GP
- … Systematic identification of people with chronic illness
- … Structured chronic disease self-management, including structured secondary prevention
- … Targeting sub-populations based on the ways in which they may benefit and the services they may need
- … Referral to additional support where indicated

- … Initiation of structured coordination of care, where the patient and their GP agree that self-management has ceased to bring about the desired health outcomes for the patient
- … Effective monitoring and evaluation.

Our analysis is based on our experience within the Coordinated Care Trials, principally with the Brisbane-based trials – TEAMCare Health.

The second of these trials, TEAMCare Health II, was a 3 year control trial, randomised by patient. Its participants were patients with complex chronic conditions over the age of 50 (over the age of 30 for Indigenous patients). There were 3000 participating patients, 2000 of whom were in the intervention arm. A total of 179 GPs and 108 general practices participated. General practitioners coordinated the care of patients, and were assisted by 16 service coordinators who, across the trial, coordinated the ongoing linkage to services needed by patients.

We argue, based on the evidence from the Australian Coordinated Care Trials and other international studies, that this will result in comparatively better health outcomes for patients which are economically sustainable within the health system.

We outline this model below, based substantially on our analysis of the implications of the evaluation of the second round of Coordinated Care Trials.[36]

4.4.1 Clinical governance led and coordinated by the patient's GP

Coordination of care is a central facet of general practice. It is internationally recognised to be a component of primary care which contributes to its health and economic benefits to individuals, communities and nations. It is a mistake to conceive of this activity, which is intrinsic to the nature of general practice, as a discretionary 'add-on' which can be undertaken (or not) depending on the workforce capacity and availability of 'substitutes'.

The report of the evaluation of the (Second Round) Coordinated Care Trials confirmed the pivotal role of the GP, suggesting that where GPs were not effectively involved in health assessment and care planning, delivery of care coordination was impeded.[36]

We recognised that, for people who cannot manage their own care, 'care coordination' is an area of care-related activity in its own right, with the contribution of health-service providers other than solely GPs essential to successful delivery.

Although constraints on GPs' time mean that it is unlikely that GPs will be in a position to fully drive care coordination, we believe that there is good evidence to suggest that they need to lead the clinical governance which supports it.

In this context, we do not support models of care coordination which are outreach from secondary and tertiary hospitals.

4.4.2 Systematic identification of people with chronic illness

We argue that it is important to begin the structured management of chronic disease at diagnosis. In this context, it is important to systematically identify people with chronic illness.

As general practice clinical information systems improve it is increasingly possible to systematically identify people with chronic illness.

This systematic identification is less easy for some key stakeholders, for example, private health insurance companies.

4.4.3 Structured chronic disease self-management, including structured secondary prevention

We argue that a critical early task in the effective management of chronic illness is the use of structured chronic disease self-management strategies.

In the TEAMCare Health Coordinated Care Trial, both intervention and control patients reported that they had put more value on preventive health care. Intervention clients in the TCHII Trial, who had been in the trial for a longer period of time, reported increased empowerment and sense of personal responsibility for maintaining their health, which they attributed to their involvement in the trial.

We suggest that these results may indicate that for some people it is not necessary to involve them in a third-party program. The provision by a general practitioner or other health professional of information about the illness and its management, in conjunction with a plan for management may, in itself, have a benefit, without the use of structured self-help/management programs. Providing carers with a structure in which they can monitor and assist the person they care for may improve the care without increasing the burden on the carer.

There is also a role for structured chronic disease self-management programs. Indeed, there is international evidence of the benefit of these programs overall.[37] There was a continued and increasing trend of positive cultural change amongst trial participants over the course of the trial. Clients took increased responsibility and ownership of their own health management and were more empowered to communicate effectively with health professionals as the trial progressed. Clients and stakeholders expressed concerns that this cultural change of clients could not be sustained without the support structures of the trial.

Some of the intervention clients in the TCHII Trial linked the improvements in their ability to maintain their health to their involvement in the trial or participation in self-management courses. GPs reported observing increased empowerment in many of their clients, and that some clients refused services towards end trial, as they did not feel that they needed all the services offered to them.

Engaging consumers also has profound safety implications as consumers can play a significant role in detecting and preventing adverse events. Research on the safety of patients in Australian primary care is very scarce, and there is no Australian study which extrapolates the costs of error and harm in Australian primary care. This is despite the substantial amount of care provided in the setting, and thus the chance that this setting contributes significantly to the cost of iatrogenic harm. From an Australian study in the public hospital sector, we postulate that the cost of adverse events in the health system is substantial and there are opportunities to create safety and simultaneously improve the financial outcome in health[38]. It is clear that involving consumers further is a key step in this process.

Structured self-management is not, however, an entirely good news story.

Intervention clients who had attended a self-management course reported mixed levels of satisfaction with the course, stating that the greatest benefit was the social contact it provided. There is also evidence that external factors, such as the upfront price of the programs and lack of affordable transport to attend them impairs participation and completion of the programs.[39] Additionally, we are not aware of longer term studies of the maintenance of healthy behaviours, and thus cannot determine whether it is important to provide an ongoing mechanism to assist in sustaining self-management behaviours.

Additionally, at a national level, we are concerned that the spread of existing self-management programs may be uneven; and thus access to them limited.

4.4.4 Targeting sub-populations based on the ways in which they may benefit and the services they may need

While many people in the community may find that a self-management program is sufficient support to manage their illness, other people may benefit from referral to a specific form of support in addition. For these people, we support a structured mechanism of referral to education and support services early in their illness.

A limitation of the existing chronic disease management items in the MBS is that the referral to allied health can only occur for people who have chronic illness which needs the coordinated and ongoing involvement of a number of professionals. We would argue that this is too late an intervention for many people who would benefit from structured support much earlier in their illness.

We would argue that a small level of assistance is likely to maximise benefit, and that the marginal benefit from second and subsequent services may be low and diminish quickly as the number of services increases.

In the TCHII Trial, GPs reported that home health assessments (conducted by Service Coordinators) benefited the care coordination process as they facilitated early identification of potential and chronic health problems. GPs suggested that home assessments were crucial in identifying additional support needs that would otherwise not have become evident in the surgery. Service Coordinators agreed that home assessments were valuable; however, they stated that the travel implications of home assessments had to be considered in balancing time and workload constraints.

Indeed, across the Coordinated Care Trials, people early in the trajectory of their chronic condition reported improved health and well being, and improved access to services.

The situation was slightly different for the frail elderly who reported better access to services and improved sense of security about their health.

Where frail elderly patients were targeted, the chronicity of the target group led to considerable costs of care coordination, which meant that it would be difficult to absorb this cost into savings in service delivery.

This may be because the trajectory of the decline in their health is relatively immutable, and they seek other measures of 'success' from coordination. Improvement in health status may not be an appropriate metric for some of these people, and maintenance of a sense of security and good access to services may be better metrics.

4.4.5 'Drifting'

We would propose that one of the consequences of unstructured management of chronic illness is 'drifting'.[40]

'Drifting' is a process by which people who are not involved in structured care use more medical services more often and with no better outcome, apparently mobbing from less expensive health and social services to more expensive ones, in an effort to alleviate distress.

In this context, drifting can result in unnecessary or ineffective expenditure on health services. Indeed, participants of the TCHII Trial who received the aged pension or the disability pension had reduced service utilisation during the trial compared with pre-

commencement utilisation (but with commensurate outcomes to their peers). The trial indicated that this cohort essentially had no price barrier to MBS services (due to bulk-billing) and limited price barriers to PBS. Thus, this cohort was potentially over-utilising services in the pre-commencement period.

4.4.6 Referral to additional support where indicated

Although we believe that (structured) self-management is under-utilised and under-supported, we support the systematic referral of patients to additional support where this is indicated.

4.4.7 Initiation of structured coordination of care, where the patient and their GP agree

It is clear from the Coordinated Care Trial evaluation data that a convention is required to facilitate the estimation of care coordination and service coordination workload that takes into account the complexity and acuity of individual participants. Some method of 'case streaming' may further facilitate positive management and outcomes.

4.4.8 Effective monitoring and evaluation

We strongly support an effective strategy for monitoring and evaluating the benefits of a structured chronic disease management strategy.

We would urge caution, however, in the design and expectations of the monitoring and evaluation.

Both rounds of Coordinated Care Trials reported that the period of intervention (less than two years) might have been too short to ascertain some benefits.

From a patient viewpoint, intervention participants who spent a comparably longer period of time in the TCHII Trial had reduced total cost compared with pre-commencement. This cost reduction was driven by reductions in costs to the Pharmaceutical Benefits Scheme (PBS) and reductions in inpatient costs.

From a stakeholder viewpoint, as the TCHII Trial progressed, it became apparent that stakeholders' understanding of the process and value of service coordination was evolving. By end trial, all groups reported that they had developed a greater appreciation of the roles and capacity of the other stakeholders and indicated that collaboration was key to successful care coordination.

These reported outcomes, we suggest, argue for careful consideration of an evaluation strategy and argue for a deliberate choice not to overly analyse outcomes prematurely (reflecting on the lessons learned in both rounds of Coordinated Care Trials).

4.4.9 Costs and benefits

Compared with existing care and/or costs early in the trial, at trial end intervention clients in the TCHII Trial reported improved care coordination, increased level of access to services, improved health and wellbeing. The analysis of the Health Outcomes Survey indicated that intervention clients reported better general health, less depression and a higher quality of life at the 12-month measurement point compared with the control clients. For the intervention group, there was a significant decrease in depression between the baseline and 12-month measurement points. The control group reported a significant decrease in quality of life between the baseline and 12-month measurement point. Intervention participants had reduced inpatient utilisation relative to control clients. The length of (hospital) stay for control

participants was on average higher than for intervention participants during the trial, and this difference increased during the trial. There was an increase in length of stay for control participants in the trial, but much less so for intervention participants. Avoidable hospitalisations are a greater part of control participants' hospitalisations.

Emerging trends suggested that if the trial operated for longer, total intervention costs would have fallen below control costs, and may have absorbed the costs of care coordination.

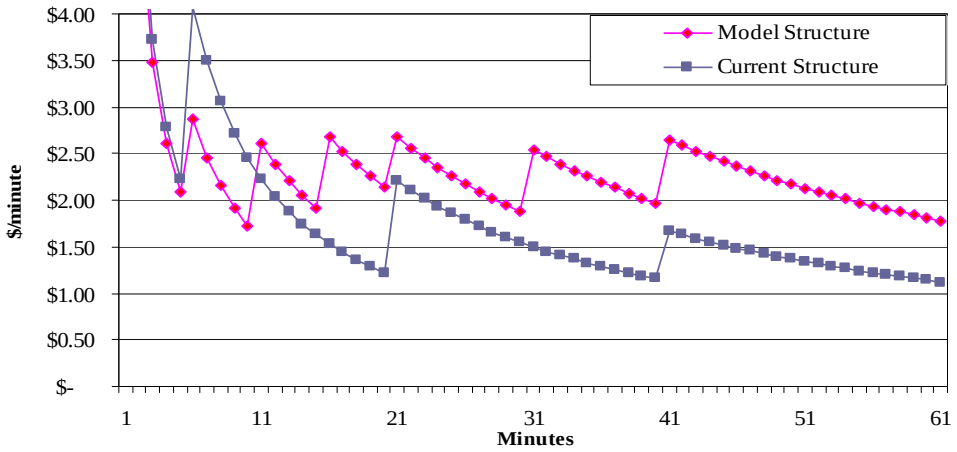
As a result, we suggest that the model we propose may be more expensive than 'usual care' when established, but would deliver tangible benefits in the form of concurrent reductions in the cost of (especially inpatient) service delivery and, significantly, avoidable hospital admissions. We also believe that it would reduce the rate of adverse events, a component of the model which has not been economically evaluated.

4.5 Reform the funding system

We believe that it is important to have meaningful reform of the funding of general practice and primary care in Australia. However, the history of the development of Medicare, the public support for it, and the nature of the Australian federated system need to be taken into account when suggesting reforms.

We believe that the funding of general practice and primary care needs to be built in a way that supports the new models of care we envisage. Currently, funding adversely shapes the provision of care in general practice.

This is illustrated in the table below, which shows the fee per minute provided in patient rebates for general practice ('current structure'). The 'saw-tooth' form of the graph indicates that the fee-per-minute income from rebates 'spikes' at certain points. This means that the MBS encourages doctors to work to a pattern which finalises consultations at these points (and thus maximises income). It also shows that as the time spent with a patient increases, the fee-per-minute decreases significantly (i.e. seeing a patient for twice as long does not attract twice the fee). This is a disincentive to longer consultations with patients, though there is compelling evidence that the length of the consultation is related to the complexity and the care provided; and that longer consultations (overall) lead to better patient outcomes.



The ‘model structure’ shows the results of a change in the structure of the MBS, whereby the time-tiering of the MBS is changed. It results in less severe variation, and thus in a reduction of the disincentive for longer consultations.

4.5.1 An overall approach is needed

Peer-reviewed literature generally supports the presumption that payment incentives affect physician behaviour in the predicted direction. Systems using single, undiluted payment mechanisms (such as fee-for-service or capitation) can generate undesirable incentives (such as over-servicing in fee-for-service, ‘stinting’ or ‘skimping’ on care in capitation, and lower productivity in salaried models). It is important to consider the blending of a variety of alternative payment approaches, as this will have the effect of balancing and moderating undesirable incentives that would be generated by systems using undiluted, single payment mechanism approaches.[41]

Further, it is important to mix payment mechanisms with non-payment mechanisms (such as accreditation and promulgation of clinical guidelines), as non-payment mechanisms can also make a substantive contribution to the achievement of quality outcomes for patients.

Thus, it is possible to build a quality system on a fee-for-service platform, provided that the adverse impacts of fee-for-service are attenuated by other modes of funding.

4.5.2 A fee-for-service base

We would propose that the fee-for-service component be about 85% of income for an urban GP. We believe that it would be difficult and costly to have a fundamental shift from fee-for-service in the general practice sector, and that the costs would not outweigh the benefits gained. We are also aware of the announcement that there will be a substantive review of the MBS which could ‘dovetail’ with the work of the NHHRC.

The reform of the MBS needs to create a simpler payment schedule. It needs to address the poor relativities between specialist general practitioners and consultant specialists in other medical disciplines. It needs to deal with the listing of other disciplines, especially allied health, on the MBS.

We support a modification of the activity-based fee-for-service model to create what we call a ‘longitudinal fee-for-service’ payment – a payment for activity which stretches over a short period and includes a range of different activity. For example, we can foresee a payment which includes a visit to a residential aged care facility, and the subsequent medication updates, discussions with carers and staff; most of which is not rebated under the current system.

4.5.3 Non-fee-for-service components

The balance of funding for general practice and primary care would come in other funding modes. We propose this, based on our observation of the changes in attitude to practice incentive payments when the relative value of these has dropped. We suggest that there is a narrow window for the ‘tipping’ point, at which the incentives are seen as inadequate for the work required to attract the payment.

In the 15% of non-fee-for-service payments, we support direct-to-doctor payments, especially those which aim to reward doctors (and other health professionals) for remaining in difficult locations, especially those with comparatively disadvantaged populations. We would argue that such locations occur in metropolitan areas (e.g. some parts of inner Sydney), not only in rural locations.

We would also support the use of some Service Incentive Payments (payments to GPs), especially for high priority population health activities (e.g. immunisation and cervical screening).

We support some 'pay-for-performance' (P_4P) elements – retrospective payments for achieving particular quality benchmarks (e.g. completion of the tasks involved in an annual cycle of care with people who have diabetes). These elements exist for general practice in the Practice Incentives Program, which we believe could be refined to provide a simpler and more effective form of support for quality.

These incentive payments should continue to include incentives to employ general practice nurses and other allied health professionals on a salaried basis, where this suits the local environment.

The empirical literature on paying for quality in health care is scarce and contains mixed results.[42]

The lack of (and inconsistencies in) evidence may be attributed to methodological limitations and contextual variation, including those between and within the different national health systems. Amongst these is the ability to distinguish between the effects of initiatives that occurred prior to, and in conjunction with, P_4P approaches.

In the UK, the National Health Service (NHS) introduced a new GPs contract in the context of the Quality and Outcomes Framework (QOF) in 2004. Under this program, GPs' payment is based on 146 quality indicators. Although the high level of performance in the UK suggests that under the new contract GPs improved their practices and/or their documentation to meet the new standards, it is possible that the improvement is also the result of other initiatives that were introduced prior to the QOF.[43] The downside of the new contract is its impact on the NHS budget.[44, 45] In placing the target on GP activity, it may also create a disincentive for the role of other professionals in the clinic.

In the USA, the P_4P approach is becoming increasingly popular with a range of health insurers, both public and private. Thus, the P_4P approach is a major component of the 'New Model' of health care finance. The 'New Model' in the USA is associated with improved performance; patient outcomes and physicians' income.[46] The stakeholders in the USA are, however, concerned with:

- A lack of robust evidence about the effectiveness of the 'New Model'
- A high transitional cost of implementing the P_4P model (estimated at $US23,442 to $US90,650 per physician,[46]
- A lack of standardised measurement and quality indicators and structural barriers to their development (e.g. fragmentation of the USA health system[47, 48, 49]

Perceived problems with on P_4P include:

- Limited evidence about the effectiveness[50]
- Impact is context specific[50]
- Negative impact on clinical decision-making[51, 52]
- May result in care inverse to the need[53, 54]
- Unknown effects of termination of incentives[55]
- Unknown return on investment of these initiatives[56].

As a result, wherever P_4P models are used, it will be essential to underpin them with additional payments to sites which care for comparatively disadvantaged populations as

these sites are likely to fair comparatively poorly despite significant effort to achieve the targets.

4.5.4 E-consultations

It will be essential to fund clinical care which is provided through e-consultations. Safe and effective models of e-consultation will continue to emerge as technology develops, and it is important to consider the mode of communication separately to the clinical content and outcome of the interaction. E-consultations are likely to be very useful in rural contexts, in assisting people who are home-bound, and in the context of any pandemic. As a result, any future funding model must incorporate e-consultation.

It is likely that this will require nation-wide access to high-speed broadband; and an enhancement of digital authentication of identity for patients and health professionals.

It would be relatively simple to adjust the descriptors for some Medicare items (e.g. a Level A consultation) to include the potential for the consultation to be undertaken in another mode, such as the various electronic modes currently available. This could be a short-term action arising from the NHHRC.

4.5.5 Non-face-to-face time

Currently, non-face-to-face time in the private health sector is considered to have no, or very low, value. As a result, a doctor who drives an hour to see a patient on a rural property will attract a rebate for the time with the patient, but no rebate for the two hour round trip.

In the residential aged care sector this phenomenon already results in a situation where a general practitioner who stays in their clinic can easily net double the fees of a general practitioner who does more complex work in a residential aged care facility. The result is an ongoing and unsustainable concentration of services amongst older general practitioners, and the absence of engagement of most younger general practitioners (who are paid a percentage of the fees they generate) in the care of residents of aged care facilities.

This challenge is also evident in quality improvement, clinical teaching and research in general practice.

An important aspect of health reform will be to address this barrier to quality.

4.6 Create a single funder for medicines

The issue of 'cost-shifting' is one which concerns us.

One area which we believe would benefit from re-alignment is that of the funding of medicines. There is a national strategy for the listing of medicines which are supported with government subsidy, for negotiations on purchasing and for post-marketing surveillance.

We believe that there is also a role for a single national funder of medicines.

We believe that this would overcome challenges such as the provision of small amounts of medication at the point of hospital discharge (a decision made, mostly, for funding reasons). It could also provide the platform for a single national medication chart, accessible by all health professionals who prescribe and dispense medicines for a patient

Both, we believe, would enhance the safety of patients in our health system.

5 Conclusion

We believe that the trajectory of change in general practice, while experienced by some as difficult, suggests that general practice is a fertile, ready bed for innovation.

We suggest that it is important to understand the fundamental essence of general practice, especially the way in which its coordination function brings health- and economic benefit to patients, the health system and the economy.

We believe that there will continue to be a central need for general practice to promote health and diagnose illness from undifferentiated presentation. We believe that, despite the opportunity for substantial improvements at a structural level, there will continue to be a major role for general practice in the management of chronic illness after self-management is no longer optimal.

To optimise the outcomes, we suggest that capital and human resource planning is essential. We believe that further investment in integrated information systems will be cost-effective.

General practice is pump-primed and ready to make a further contribution to the health of Australians and their economic prosperity. The challenge is to remove the impediments to its doing so.

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