

**strategy&**

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***Reimagining  
health reform  
in Australia***

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**Taking a systems  
approach to health  
and wellness**



## Contacts

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### About the authors

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# Executive summary



**A smart and sustainable health system is in the interests of all Australians.** It can enable a more informed population to make better lifestyle choices and enjoy happy productive lives, reducing the incidence of debilitating chronic diseases. Citizens would have greater control over their care and access to services that are better tailored to their needs. They would also be better able to harness new services such as eConsultations, remote monitoring, better access to health data and other benefits of the digital revolution.

The last decade has seen a number of significant initiatives implemented to improve the performance of Australia's health system. These include the Federal Government's reforms between 2010 and 2012, including the introduction of activity-based funding and National Partnership Agreements, which were inspired by the recommendations of the National Health and Hospitals Reform Commission. In addition, the states and territories have downsized their centralised health bureaucracies and devolved funding, planning and delivery responsibilities to the local level. The current Federal Government has established a Mental Health Commission, recently announced a "Healthy Medicare" package aimed at reforming care for chronically ill patients, as well as setting up the new Australian Digital Health Agency.

These reform efforts, while significant, are in our opinion insufficient to ensure the future sustainability of Australia's health system with Australia in transition. As noted in the *2015 Intergenerational Report*, Australia's growing population is living longer. The cost of health services is also rising at twice the rate of GDP. An ageing population, sedentary lifestyles and an escalating chronic disease burden is likely to increase the demands on our health system. Australians will also want to benefit from the latest medical advances such as personalised medicine. While the cost of Australia's health system currently represents 9.8 per cent of GDP, real federal health expenditure per person is projected to more than double over the next 40 years unless we think differently about healthcare.

These challenges urgently require a new approach, especially if we want to avoid rationing services or increasing taxes. A rejuvenated national health reform agenda must tackle the system's existing complexities. These include the current fragmentation of responsibilities for administration and funding between different layers of government, as well as the need both to allocate efficiently the funding that already exists and attract new funding from other sources. Reform must also involve all significant players in the sector. This means offering a seat at the table to private players, including private hospitals, insurers, pharmaceutical companies, technology suppliers, nutrition and fitness players, as well as employers, schools, universities and research institutions. We also need to recognise the social determinants of health, which means taking a broader whole of government approach.

It is the health consumer who has the biggest stake in ensuring the future sustainability of our health system. Putting the consumer at the centre of reform by applying customer-focused models will ensure that Australia more consistently delivers quality outcomes for its people including better patient health outcomes, satisfaction and lower costs. A concerted focus on wellness and prevention (including encouraging changes in individual behaviours) offers exciting potential to reduce mortality rates from heart disease, diabetes, cancer and stroke. Fostering innovation across the healthcare value chain – including greater use of public-private partnerships – will also ensure the system's long-term sustainability. Australia's health sector can serve as a model for other countries and contribute to economic growth as an export market, particularly in Asia.

It is clear that tinkering around the edges will not deliver serious, effective and sustained health reform. By contrast, an approach that considers the system as a whole is most likely to optimise its effectiveness and efficiency and actually improve Australians' health. Such an approach would seek to understand and enhance both the way that every element of the health system works – on the supply and demand sides – and how these elements interact. The aim should be to deliver an integrated program of reforms that are coherent, transparent and aligned.

In our view, reforming Australia's health system will involve five central policy levers.

- 1. Consumer Empowerment and Responsibility:** Encourage Australians to take greater responsibility for their own health by improving health literacy and transparency, with incentives to adopt smarter lifestyles and more patient-centric care.
- 2. Wellness and prevention:** Place much greater emphasis on preventive approaches to slow the growth in demand for health services, and tap areas such as prescriptive analytics to assist with prioritising interventions and catchment area planning.
- 3. Integrated funding and management:** Move to a single or pooled source of government funding to eliminate bureaucratic cost shifting and duplication, combined with more private sector contributions and alignment to outcomes.
- 4. Optimised care pathways:** Design and implement optimised pathways to help ensure 'the right care, at the right place, at the right time'. This will provide a basis for public and private re-investment in a more efficient care setting mix with multi-disciplinary teams, building on and extending the concept of integrated care.
- 5. Information-enabled health networks:** Adopt widespread application of integrating technologies to empower consumers, help clinicians improve patient outcomes, embrace non face-to-face channels and harness the power of analytics, whilst ensuring protection from cyber-security risks.

Reimagining health reform around these five principles will enable Australians to continue to have universal access to quality affordable healthcare, with a high performing health system that is a vibrant and productive contributor to Australia's future, and a model to which other nations can aspire.

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# *Health reform – The journey so far*

Many significant initiatives have been undertaken to improve the performance of Australia's health system over the last decade. In 2009, the National Health and Hospitals Reform Commission set up by the Federal Government made several important recommendations. These included pioneering activity-based funding (essentially a fee-for-service model in which hospitals are paid a fixed price for each episode of care they administer). Other measures were the tying of federal funding to performance through National Partnership Agreements and introducing Medicare Locals (now Primary Health Networks) and Local Hospital Networks. New federal structures were also created to coordinate key issues such as workforce planning, practitioner registration, preventive health and eHealth, and the pricing and funding of healthcare services.

At the same time, states and territories enacted reforms within their own publicly funded health systems. These included down-sizing and reducing the roles of their central Health Ministries, devolving funding, planning and delivery responsibilities to Local Health Districts/Hospital and Health Services. Activity-based funding has also been introduced, as well as initiatives to improve healthcare quality and make greater use of shared services. Most recently, the Federal Government has announced a "Healthier Medicare" package aimed at better integrating care for chronically ill patients.

Some of these reforms are ongoing. A few are still being bedded down, and new initiatives are revising core elements of how we fund and deliver health care. However, many important reforms still need to be tackled. We believe that serious health reform is at risk of stalling if we 'tinker at the edges' or fight on too many fronts without sufficient coherence. The reform journey is often politically perilous: witness the public reaction to the Federal Government's proposal to introduce a GP co-payment, wind back the Medicare Benefits Schedule and potentially increase the GST or change taxation to help ensure the health system's future sustainability. The reform journey also takes time, typically beyond one election cycle. There are many stakeholders with deep passion about health and how best to achieve success, as well as others

with interest in maintaining the status quo. Reform advocates do not always acknowledge the complexity and nuances of Australia's health sector with its mix of public and private providers and payers, and the fact that changing one element can produce unintended consequences somewhere else. Clear, coherent, integrated and structured approaches to engaging the public and clinicians in the reform journey are essential.

As a result, ideas designed to reduce costs often run the risk of simply shifting costs. For example differences in the mix of private patients in public hospitals may explain some of the differences in performance, however the right solution may not be to attract more private patients across the board. A more nuanced approach may be appropriate that retains the customer value proposition of private health insurance and recognises in some complex cases, better treatment may be available in the public system where there is sufficient concentration of volume to deliver better outcomes at lower costs. We also need to address availability of appropriate care and alignment of incentives. For example, whenever there is a requirement to pay or co-pay and a patient perceives they can receive the same level of quality and service for free, it's clear which option the individual will rationally choose. If an elderly patient is treated for free in a public hospital, he or she may prefer this to being cared for in a more appropriate aged care facility where there is a need to pay. Similarly, reducing the affordability of private specialist medical care could transfer this demand into public hospital outpatient departments. Reforms aimed at removing patients with sub-acute conditions from costly acute public hospital beds can simply shift the queue right back to the hospital's own front door. This is especially likely in the absence of complementary initiatives to increase sub-acute beds, nursing home places, or home and community care options. Finally, reforms that deter people from seeking care early for acute or chronic conditions inevitably only succeed in postponing demand on the health system. These patients will ultimately require interventions that are more expensive and add to the nation's disease burden down the track.

We believe the time is right for a more strategic, whole-of-system approach to health reform. Achieving this will require engaging all Australians, not just health interest groups. Above all, it will be necessary to create a clear action plan, and a compelling narrative that can drive and sustain the reform process.

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# *Why the time is right for a new approach*

Australia's health system performs relatively well compared to other advanced western economies on high level measures. For example, our health system expenditure is slightly less than the OECD average, whilst life expectancy is two years greater. We can also point to successes relative to other countries e.g. reducing smoking from 22.4% in 2001 to 14.5% in 2014-15. However global comparisons like these provide no evidence that our health system is actually internally optimised for effectiveness and efficiency. In fact, there is evidence that the reverse is true – that we are at best experiencing modest success at reducing our burden of disease with a health system that has major inefficiencies and does not yet provide consistent levels of access and outcomes to all Australians. We are not as good as we can be and need to be.

The factors driving reform (see Figure 1) are complex, multi-factorial and inter-related. The *2015 Intergenerational Report*<sup>1</sup> highlighted that a growing population that will live longer, coupled with increased health costs, will add pressure to the budget and threaten service sustainability. An ageing population, sedentary lifestyles, low levels of health literacy, higher consumer expectations and increases in chronic disease will increase demand on the health system. In addition, Australians will want access to the latest advances in medical technology and personalised medicine, raising challenges on affordability and who pays.

The health system also has major supply side inefficiencies. These include: fragmented funding; a care setting mix ill-matched to current and future demand; fragmented patient journeys and suboptimal patient flow; new and higher cost treatments and technologies; and an inflexible health workforce structured with a bias towards the needs of professional interest groups rather than patients.



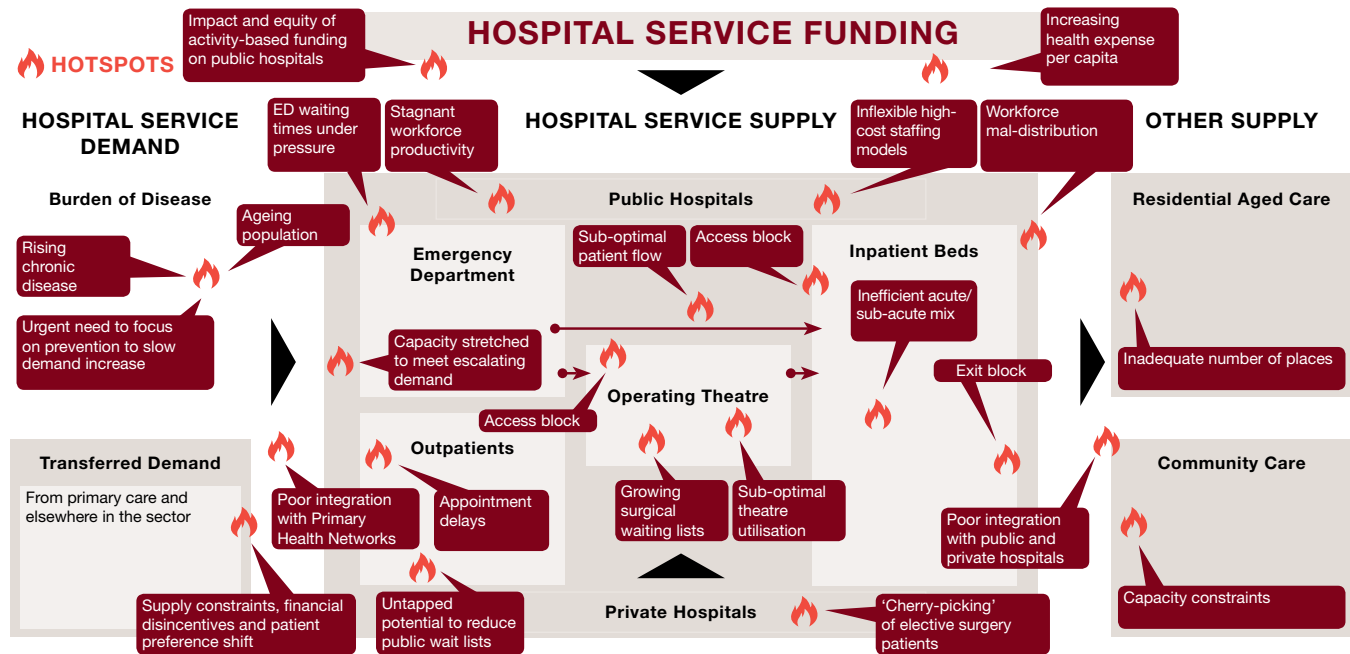
Figure 1  
 Reform drivers and imperatives



These challenges call for a systemic approach to reform that tackle both demand (for example, incentivising consumers to take more responsibility and making a major investment in prevention) and supply (for example, integrating funding and delivery, and leveraging technology to improve access, and provide more effective, more efficient and safer care). Every individual can impact the health budget. There is also much that can be done to improve quality, service and cost of supply.

The urgency to re-energise reform efforts can be clearly seen when we take a systems view of Australia’s public hospital system. Despite concerted efforts over several decades to improve effectiveness and efficiency at an individual facility level, the system as a whole, i.e. the public hospitals and their interfaces with other parts of the health system, remain largely inefficient with seemingly intractable ‘hotspots’ that have defied planning and policy responses (see Figure 2).

Figure 2  
Intractable public hospital system interface hotspots

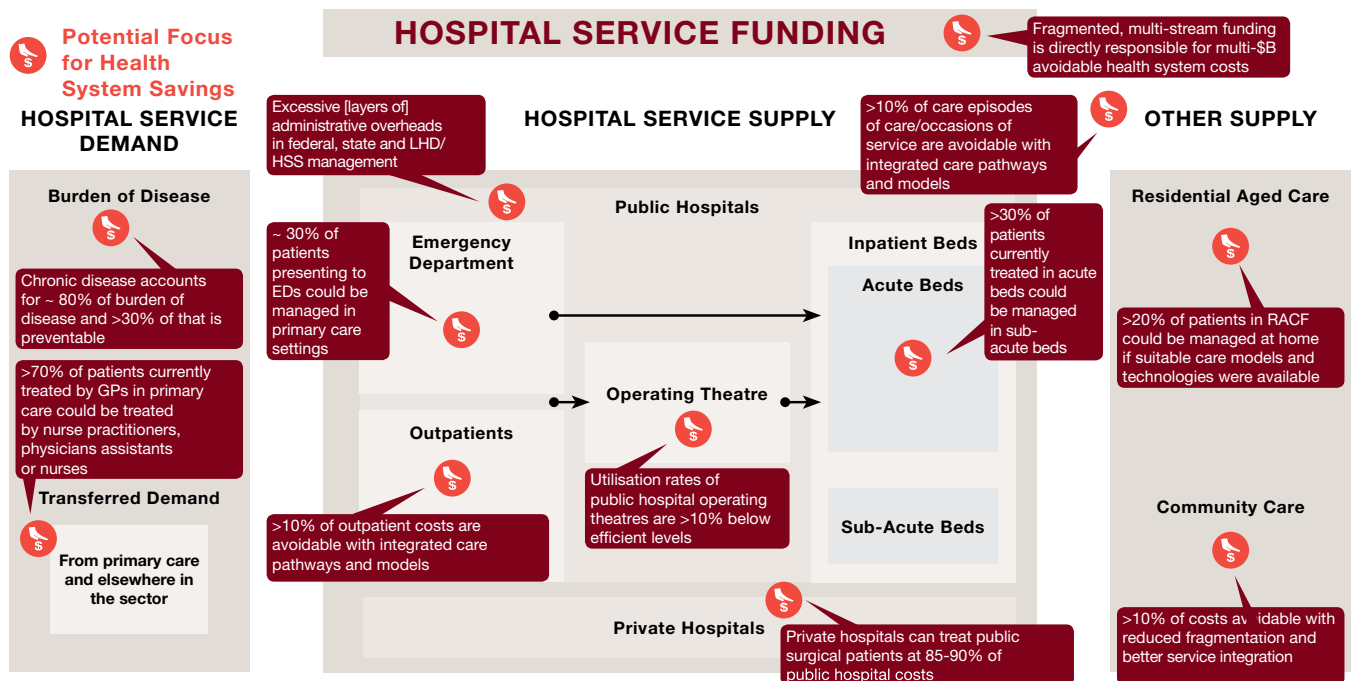


These 'hotspots' clearly require a response at the health system level rather than at an individual health facility or care setting level. Ongoing reform at the local health facility level does generate incremental improvement in effectiveness and efficiency. However, when viewed in the context of the challenges facing the health system as a whole, these initiatives will not generate the step-change improvement required to ensure a sustainable and affordable health system into the future. Central to a more systemic approach is understanding and managing demand flows through the system and ensuring the care setting mixes within health catchment areas<sup>2</sup> are optimally matched to current and projected demand. Optimising the care setting mix within health catchment areas helps ensure 'the right care, at the right place, at the right time'. Doing so may require investment in increased capacity in some care setting types, for example, sub-acute and home care, and disinvestment in other care setting types, for example, acute public hospital care. In addition, defining and setting the conditions for the important contributions that the commercially focused private-for-profit sector and the non-government sector can make to the care setting mix is fundamental.

The costs of a sub-optimal care setting mix as illustrated in Figure 3 are substantial and these will be exacerbated in the face of increasing demand on the system into the future as the population grows, ages and has more chronic disease. On the positive side, we do now have lots more opportunities to re-invent how we deliver healthcare, leveraging digital disruption and analytics, as well as innovations in medical technology and personalised medicine. Savings generated by optimising the care setting mix could be re-invested to offset the costs of increasing demand. This also allows us to shift from a 20th century hospital-centric system designed to treat acute and infectious disease to one equipped to deal with new challenges of chronic disease and pandemics.

Not surprisingly, with low levels of health literacy and a health system with fragmented services ill-matched to their needs, health consumers – particularly those with complex care needs – struggle to navigate through a bewildering array of options. The lack of integrated care models with clearly defined, cross-care setting care pathways for the conditions that account for the bulk of Australia’s burden of disease lie at the heart of this problem.

Figure 3  
Embedded health system interface inefficiencies<sup>3</sup>



Australia's health system is far from consumer-friendly. While progress has been made in recent decades with individual clinicians and other care providers developing patient focused care models in some care settings, this has not been universal and it is almost non-existent at the health system level. It is not surprising that patients, particularly older patients with chronic conditions, have extreme difficulty in navigating their way through the care provider community during an episode of illness. Current approaches to cross-setting healthcare and the lack of integrated care models are almost guaranteed to ensure the experience is not a consumer friendly one.

Australian Government real health expenditure per person is projected to more than double over the next 40 years if nothing changes.<sup>4</sup> The situation for states and territories is even worse, with some projections suggesting that healthcare spending could consume their entire budgets by the mid-2030s if major reform does not occur.<sup>5</sup>

However, if serious change is undertaken, the benefits for Australia and its citizens are significant. For example, there are clear benefits from a focus on and success in addressing wellness and prevention:

- If Australians met the national physical activity guidelines, coronary heart disease deaths could be reduced by 33 per cent, colon cancer deaths by 25 per cent, diabetes cases by 25 per cent, stroke risk by 15 per cent and breast cancer risk by 12 per cent.
- If chronic diseases were eliminated, the Business Council of Australia has estimated that this could increase the workforce by 10 per cent, boosting the productivity of the Australian economy by 10 per cent (the loss to the Australian labour force from people suffering from chronic disease is estimated to be 537,000 full-time person years and 47,000 part-time person years).<sup>6</sup>

The case for action is clear. We need the right approach to translate intent into action.

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# ***Taking a systems approach***

It is relatively commonplace for politicians, health professionals, commentators and other stakeholders to refer to Australia's health 'system' – but it is far less common for them to use the term to de-construct the whole and understand how its constituent parts work – or don't work – together to improve the health of Australians.

Emerging in the mid 20th century, systems theory<sup>7</sup> – the study of systems in general – is now widely applied across research domains as diverse as engineering, economics, biology, sociology, philosophy and computer science. Broadly defined, a 'system' is a set of connected things or parts forming a complex whole that work together for a particular purpose. There are two types of systems: open and closed. Open systems interact with their environment, closed systems don't. Systems thinking is a discipline that allows us to see the whole system as well as the relationships between the parts to see how they work together to achieve the system purpose. Systems where the contributions of parts, and the relationships between them, are mutually supporting are likely to be more effective and efficient than those where these conditions don't exist. Health systems can be bounded for analysis in different ways, for example by geography.

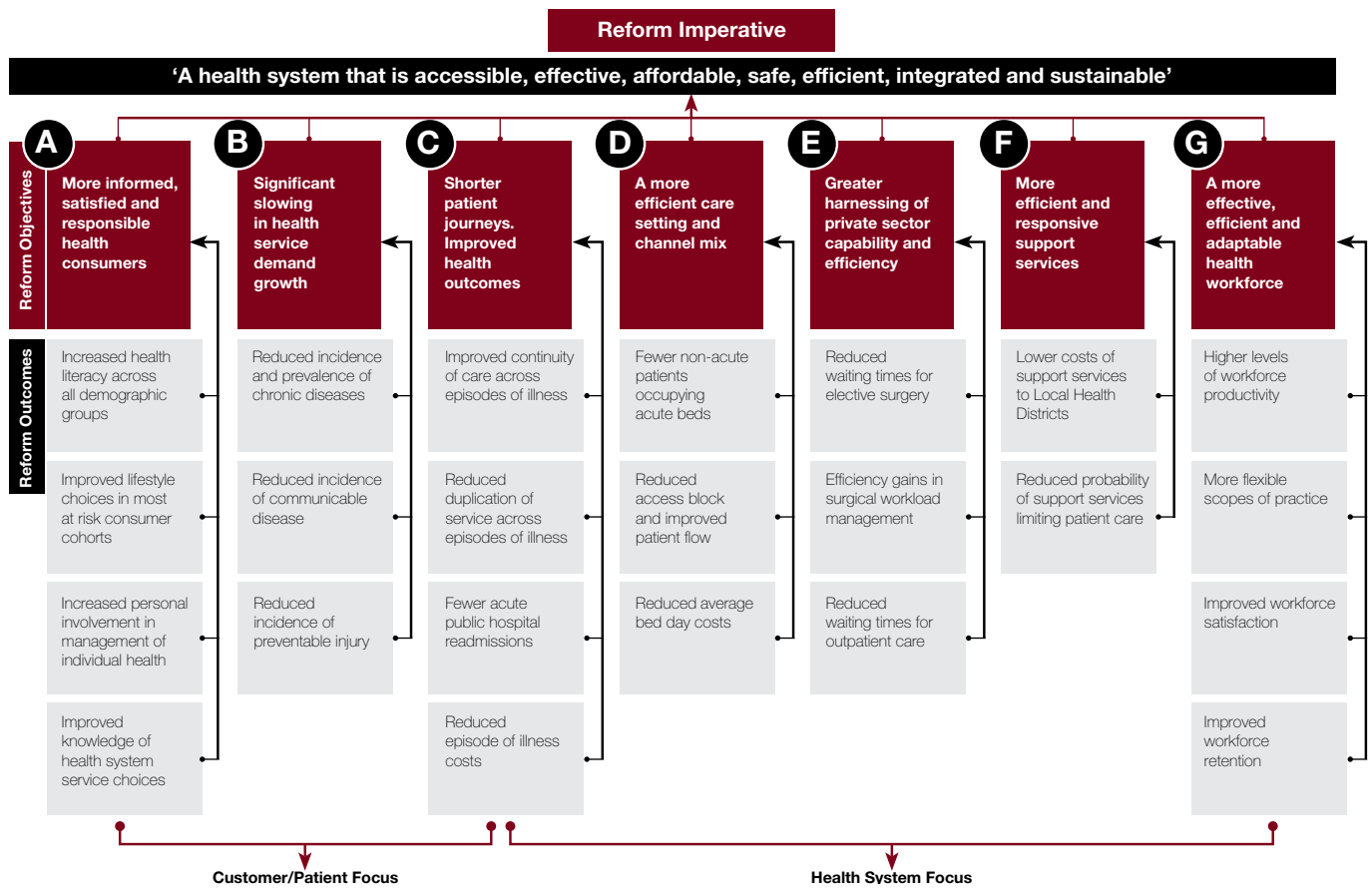
A viable health reform strategy for Australia must necessarily take a systemic view that addresses both demand and supply at a catchment area/health network level and a wider health system level. Demand and supply are complex and multi-faceted (see Figure 4). Some of the levers to affect these are within the capacity of government policy makers and funders to influence directly, others less so, and some not at all. All drivers however are relevant to serious, step-change reform – and none can be ignored. Applying reform levers to slow growth in demand and, over time, reduce it, are equally important as initiatives to re-balance supply side capabilities to better match them to demand, and to generate efficiency and effectiveness dividends, particularly at system interfaces.

*Figure 4*  
**Health system demand and supply drivers**



A systemic approach to reform necessarily involves all health system stakeholders in the design and implementation of that reform – consumers, governments at federal, state and local levels, public health providers, and private health providers, both for-profit and not-for-profit. Each of these stakeholder groups has a role to play in reform, and each stands to benefit from it. Therefore agreement on the objectives and outcomes of reform will be central to creating a coherent, cogent health reform action plan. It is only by setting clear objectives and outcomes (see Figure 5 for examples at a catchment area level) that broad systemic reform imperatives can be translated into actionable initiatives that will have the required positive impact on health system demand and supply, and against which the performance of the reform process itself can be measured.

**Figure 5**  
**Example reform objectives and outcomes at a catchment area level**



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# *Systemic health reform levers*

There are five key levers that should be applied in a determined and concerted way to achieve the objectives of serious, systemic health reform in Australia:

## ***1. Consumer empowerment and responsibility***

While the threat to the financial sustainability of the system may form the case for change, it is Australian health consumers who have most to gain from re-energised, systemic health reform. Benefits include being increasingly informed on health issues, living healthier and more productive lives less affected by chronic disease, and supported by a more 'customer friendly' and affordable health system better matched and more responsive to their needs.

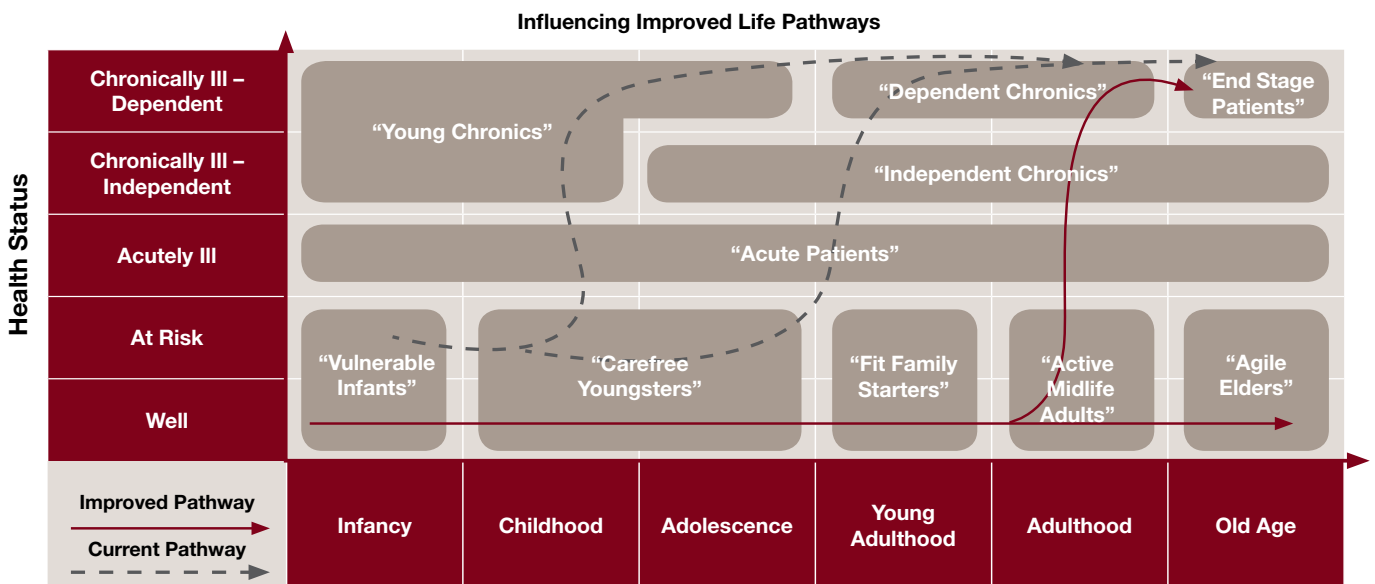
One way of visualising how Australians can benefit from health reform and shape reform efforts is to apply consumer segmentation methods commonly used in the commercial world to understand and drive customer behaviour. This approach potentially involves a more rational and effective way of focusing preventive health efforts, particularly in terms of driving behavioural change, than current approaches that either focus on the population as a whole or on specific health conditions, for example, heart disease. A simple characterisation of Australia's health consumers across two dimensions – 'Life Stage'<sup>78</sup> and



'Health Status'<sup>9</sup> – can be used to segment the population at risk (see Figure 6). This provides a framework for focusing and communicating efforts to drive down the current and projected burden of disease, particularly chronic disease, and slow growth in demand on our health system. The objective of reform efforts should be to set the conditions for consumers to achieve much healthier life pathways than they currently do, thereby reducing demand on the health system across all life stages.

Improving cross-generational health literacy will be a critical pre-requisite to healthier lifestyles and improved health pathways. Improved health literacy will require community-wide awareness, understanding and acceptance of the causal factors of unhealthy life pathways – for example, sedentary lifestyles and poor nutrition – as well as awareness and understanding of the consequences of those unhealthy pathways. It will require awareness, understanding, acceptance and adoption of the changed behaviours required to achieve healthier pathways. How do we make the first choice, the easy choice equal the healthy choice?

Figure 6  
Health consumer segmentation and healthy life pathways



Segmenting health consumers in the way described above would provide a basis for identifying the two to three changed behaviours that would do most to improve the health of consumers in that segment, for example increasing physical activity and improving nutrition. These segment-specific behaviour changes would then provide the focus for health promotion and prevention efforts where key concepts of behavioural economics could be applied.

However, this is not a one-sided equation. An essential pre-requisite for success in applying this reform lever is that Australians must take greater responsibility for their own health, and decisions about how they and their loved ones are cared for. Many do not want a “nanny state”, however we can look at the best ways to influence Australians to understand and accept their role in ensuring the future sustainability of our health system. Every individual can take action to improve their own health and those of their loved ones, and every individual can impact the health budget. Improved health literacy and incentivising consumers to adopt healthier behaviours and lifestyles that lead to healthier life pathways that slow growth in our burden of disease will be a challenging and medium to longer term undertaking, but one that is pivotal to a reform ‘compact’. It will be important to design the right combination of “carrots and sticks” leveraging approaches from behavioural economics as well as quantitative health analytics – encouraging innovation from both the private and public sector.

## ***2. Wellness and prevention***

The complex, multi-faceted and inter-related factors that drive health system demand are in some instances outside of the ability of government or other health system players’ control. The demand to which our health system is required to respond is a function of catchment area population demographics and its accompanying burden of disease. The extent to which latent demand (morbidity for which use of the health system is clinically warranted) translates into actual demand (actual presentation to the health system) is influenced by a range of factors such as consumer preferences, health literacy, social determinants such as access to public transport, and health service affordability. ‘Big data’ and predictive analytics have a crucial role to play in understanding latent, actual and future demand in support of prevention initiatives and catchment area service planning. New capabilities on outcome-based commissioning are needed to achieve the right delivery system to achieve the desired outcomes.

Health service affordability is an important driver of demand and one that government policy makers and health funders can influence directly. Affordability plays an important part in narrowing the gap between latent demand and actual demand – and helping ensure clinically appropriate demand is not simply deferred, resulting in later, higher cost, more complex demand as a consequence of conditions worsening as they remain untreated. A stitch in time can save nine.

Social determinants also have an important influence on health system demand. There is a close correlation between socio-economic status and health status, and while governments, policy makers and regulators can directly influence factors such as air and water quality, food safety and access to affordable public transport, their ability to drive significant improvements in socio-economic status in the short to medium term is more limited. Universal access to publicly funded primary health care and public hospital services is Australia's main policy lever for reducing the adverse impacts of the correlation between socio-economic status and health status. We can take more of a “whole of government” approach becoming more sophisticated in understanding the economic and analytical basis for where and with whom we invest to achieve outcomes in the short and long term, for example in social services, justice, mental health, physical wellness, treatment or care.

Slowing the growth in health system demand is a complex, multifaceted, long-term undertaking that will necessarily require the active involvement of individual health consumers, government policy makers and funders, health insurers, business, employers, schools, health providers and others. Governments, as principal funders of our health system – notwithstanding claims of ‘nanny-state’ interference in consumers’ lives – will have a lead role in driving improved health literacy and changed health behaviours. So, too, will employers, who will need to make serious efforts at driving less sedentary working approaches – initiatives from which they will clearly benefit through a healthier workforce and lower levels of absenteeism due to ill health. Improved nutrition will require government, the food industry and business to work together to make it easier for more literate health consumers to make the food purchase choices they know are necessary for improved health for themselves and their families. Behavioural economics and the judicious application of ‘pricing signals’ have roles to play here, for example, helping to design specific policy interventions like a ‘sugar tax’ (as announced recently by the UK Government) or a ‘fat tax’. Sin taxes can both prompt behaviour change and operate as a source of funding for the additional costs of treatment.

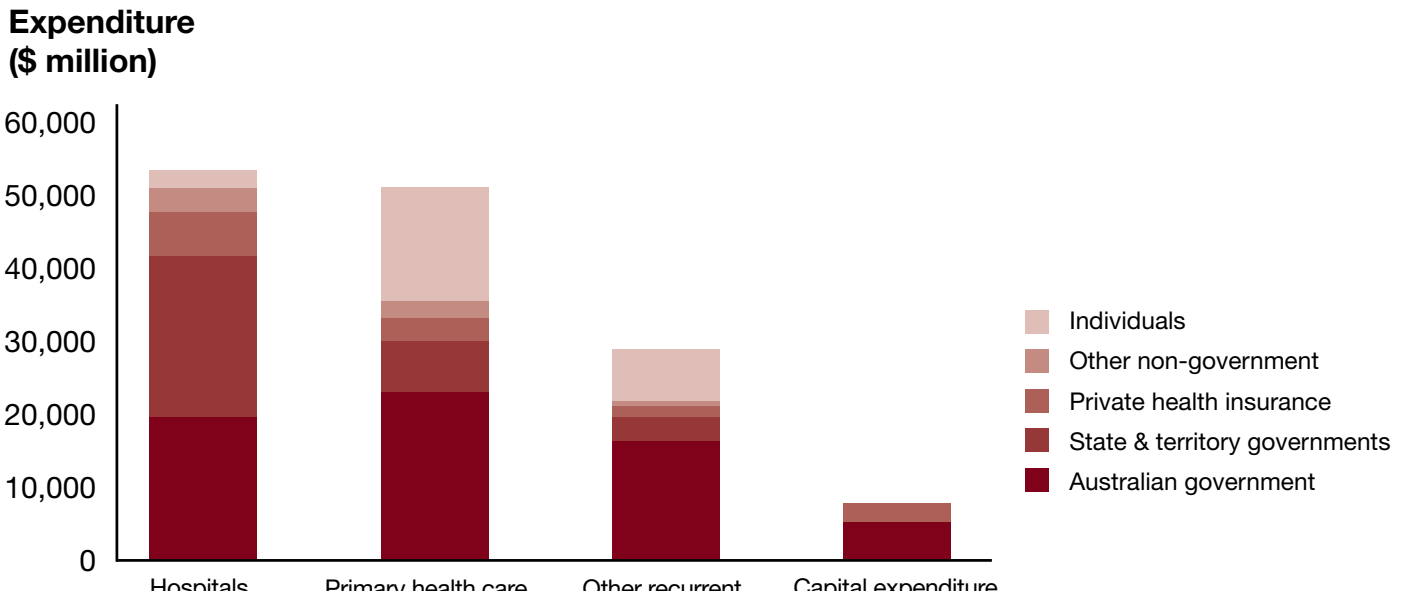
### **3. Integrated funding and management**

One of the residual challenges for improving health system supply, despite the 2010-12 reforms flowing from the 2009 National Health and Hospitals Reform Commission, is fragmentation of public funding. While the replacement of historical funding of public health services with activity-based funding, and the devolution of public health funding to catchment areas (for example, Local Health Districts), have been steps in the right direction, there is more consistency needed to develop coherent long-term service plans with rational alignment of health resources to actual and latent health demand in catchment areas. While separate federal and state responsibilities for health, and mixed public/private provision in primary, specialist, hospital and extended care, are frequently cited as barriers to more substantial health funding reform, the reality is that while fragmented public funding remains, our health system will be fundamentally inefficient and sub-optimised. A primary objective must therefore be to concentrate the public resourcing of all of the drivers of health system supply so that health capabilities can be matched directly to health system demand at the level of a catchment area.

The question of how many layers of government need to be involved in the funding and management of our health system is contentious but unavoidable. The Federal Government does still pay 37% of expenditure in hospitals, so investments in primary healthcare (where it pays 45% of expenditure) can in theory deliver pay-off in lower hospital spend, albeit shared with other funders (see Figure 7). The Interim Report of the National Health and Hospitals Reform Commission<sup>10</sup> identified 'vertical fiscal imbalance' as the biggest driver of cost and blame shifting and canvassed two alternatives: one where the Commonwealth has sole responsibility for all aspects of health care, with delivery through regional health authorities; and another where the Commonwealth has sole responsibility for all aspects of health care,

Figure 7

Total health expenditure, by area of expenditure and source of funds, 2011–12



with establishment of compulsory social insurance to fund local delivery of health services. Since then there have been different approaches taken to move towards better delivery of care supported by pooled or integrated funding models with more focus on outcomes. Examples include initiatives in Integrated Care in states like NSW, Victoria and Queensland, as well as greater focus on building capabilities in Outcome-based Commissioning nationally. We do though need to “join the dots” better, for example between prevention and treatment, in and out of hospital funding, investment now for long-term pay-off, as well as optimising public and private funding.

Concerns about ‘big bang’ health reform notwithstanding, is it reasonable to be proposing initiatives like reduced services under the MBS, higher co-payments and increasing the GST to fund health while retaining the significant embedded inefficiencies of excessive federal and state management overhead? If we are serious about reforming the system to ensure its financial sustainability, for a population the size of

Australia's do we really need three levels (also taking into account the role of local government in public health) involved in the funding and management of our health system? Devolution of responsibility and funding to local hospitals and health services that has already occurred are clearly steps in the right direction – flexible and responsive locally managed, consumer focused health services aligned to the specific and unique demand of catchment areas is the model most likely to generate effectiveness and efficiency dividends. But these could be taken further, even in the short term, for example, by integrating local hospitals and health services with primary health networks. Pragmatically there is merit in starting the journey following “art of the possible”, for example piloting integrated models in one health service/local health district, between federal and one state etc., with a view to then scaling this more systematically across the country.

While Australia with 32.2 per cent of health spending through private sources (17.8 per cent individuals, 8.3 per cent private health insurance and 6.1 per cent 3rd party payers)<sup>11</sup> ranks at the high end of private spending internationally,<sup>12</sup> there is scope to look at innovative solutions for changing the quantum and mix of the private sector contribution in ways that drive effectiveness and efficiency dividends for the system as a whole.

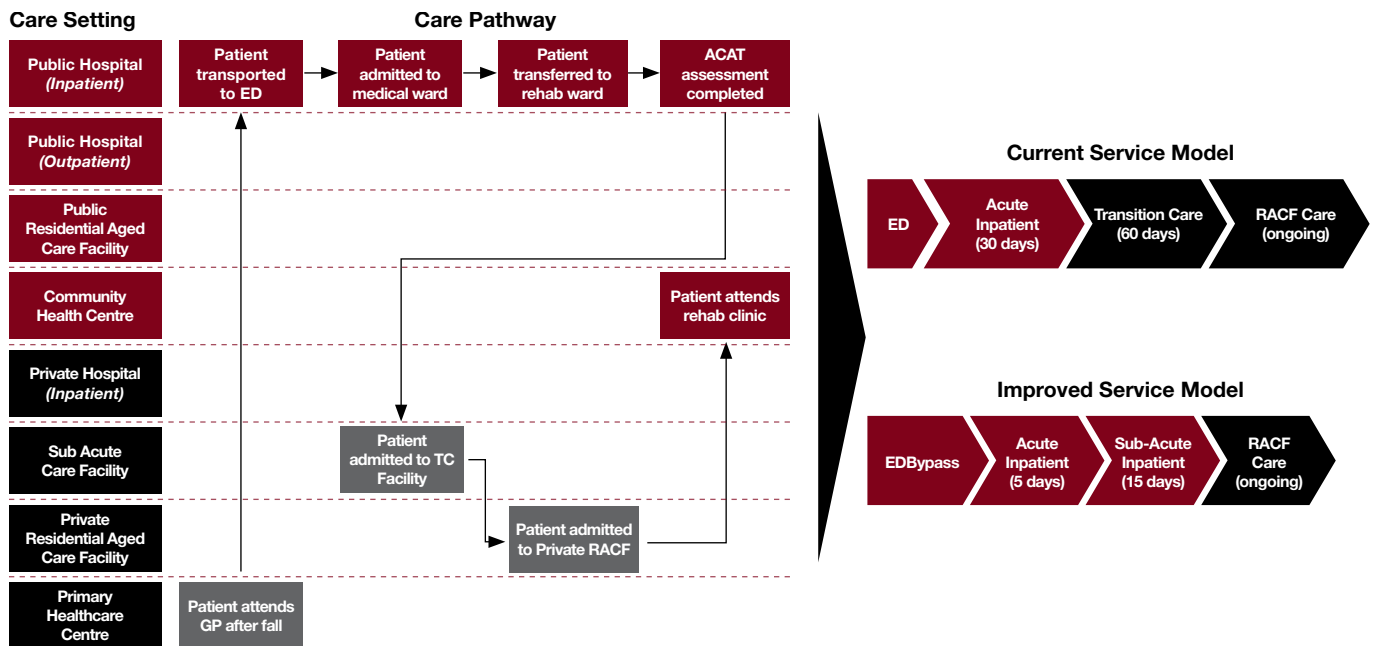
#### ***4. Optimised care pathways***

Understanding and managing demand flows through the health system and ensuring the care setting mix within health catchment areas are optimally matched to current and projected demand are vital. Optimising the care setting mix within health catchment areas helps ensure ‘the right care, at the right place, at the right time’. Doing so may require investment in increased capacity in some care setting types, for example, sub-acute and home care, and disinvestment in other care settings for example, acute public hospital care. In addition, defining and setting the conditions for the important contributions that the commercially focused private-for-profit sector and the non-government sector can make to the care setting mix is fundamental.

Developing generic integrated care pathways (see Figure 8) for the conditions that account for the bulk of Australia’s burden of disease is a necessary pre-condition for a fundamentally more efficient health system. Cross-care setting pathways could provide an important input to a more rational, integrated funding of health services in catchment areas. Identifying optimum stay durations for each care setting type within episodes of illness for specific conditions can be used to calculate the appropriate mix of care setting types required to meet current and projected demand within catchment areas – and hence a rational basis for investment in, and funding of, health service supply.

A focus on episodes of illness rather than episodes of care<sup>13</sup> and cross-care setting integrated care pathways will require changes to existing models of care for major conditions to accommodate this broader, cross-care setting imperative. National consistency in these integrated pathways and care models would be important for funding and investment decisions, but they would also need to be developed and

**Figure 8**  
**Integrated care pathways as a basis for supply side re-design**



applied in the context of specific population catchment areas. This is because of differences in the population densities and geographical dispersion of inner metropolitan, outer metropolitan, regional and remote catchment areas, and the need for critical mass to ensure cost-effective service supply.

The development of integrated care models and pathways also provides the opportunity to fundamentally re-configure Australia's health workforce to ensure it is more directly aligned to the disease burden with which it is dealing and the actual care needs of patients. This will require a more flexible health workforce, significant changes to the actively used scope of practice of many health professions, incentives to address extensive workforce mal-distribution and much more extensive use of non-face-to face channels.

### ***5. Information enabled health networks***

A key part of re-designing care pathways and service models will be leveraging the opportunities provided by new technologies. The health sector is one of the last to harness the significant potential of digital channels, demonstrated so profoundly in the financial services and retail sectors over the last decade, and which have fundamentally changed service delivery models and the way customers interact with service providers. Many countries in Asia are also leap-frogging in use of Digital Health to address quite similar issues to Australia chronic disease and ageing. Designing and implementing new service delivery models that improve access to services without compromising patient-clinician relationships and care quality must play a major part in making our health system more effective and efficient.

For example, there is potential to shift many of the occasions of service currently provided in our health system almost exclusively on a face-to face basis in hospitals or in GP or specialist surgeries to lower cost, more consumer friendly settings that leverage electronic channels.

Technology can also enable remote access to more qualified specialists than would be available face-to-face to provide better quality health outcomes. Re-designed care setting and channel mixes must also take account of population densities and geographical dispersion of inner metropolitan, outer metropolitan, regional and remote catchment areas.

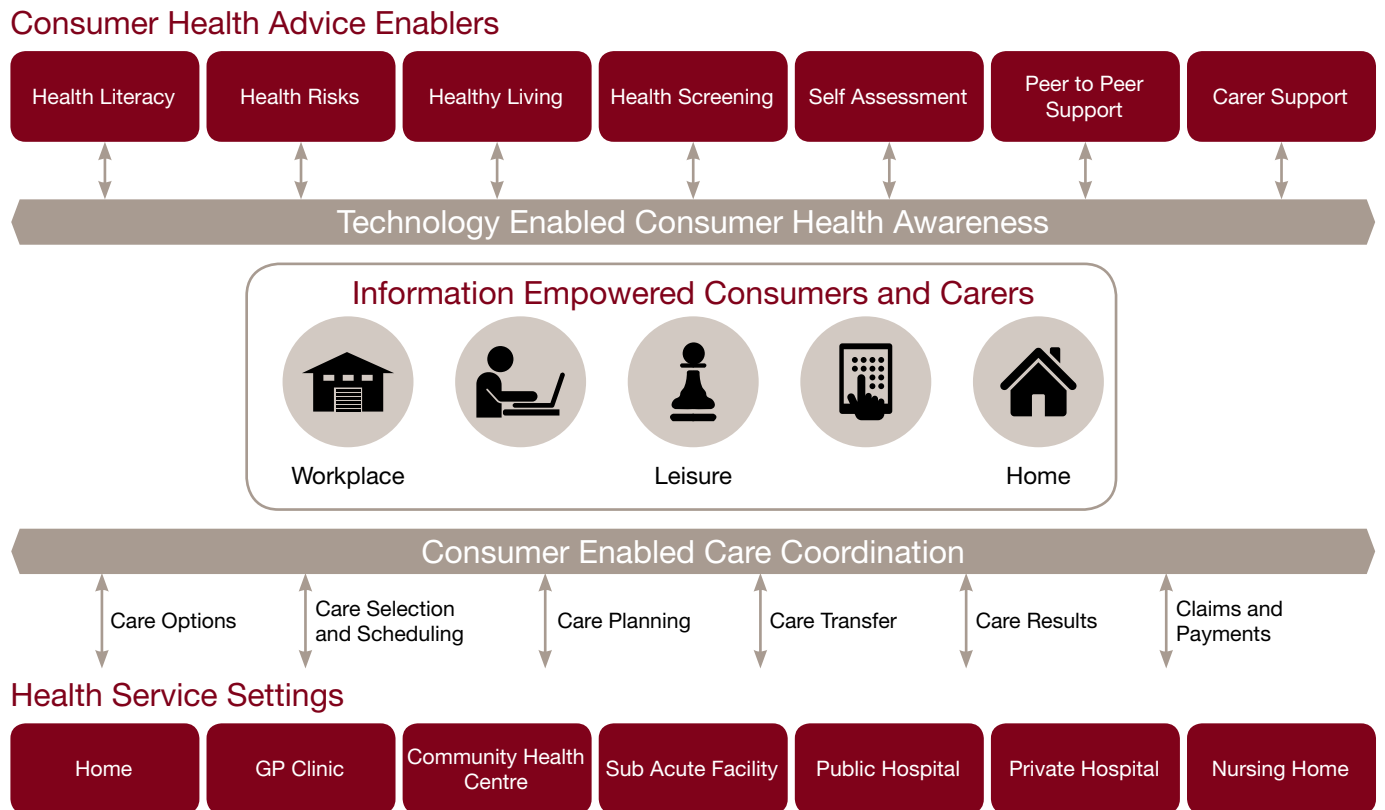
New consumer-friendly health service channels should facilitate active engagement by consumers in the management of their own health – and promote early intervention. Empowering health consumers and, where appropriate, their carers with the information they need to improve their health literacy and take more responsibility for their own



health will be fundamental to slowing health system demand through more consumers adopting healthier life pathways. This information transparency and empowerment must seamlessly span all aspects of life – work, home and leisure – and all care settings (see Figure 9).

Information empowerment can help consumers at all stages of the health status continuum, improving their health literacy, understanding their health risks and adopting healthy lifestyles to reduce the chances of becoming ill, and if they do become ill, also playing a more active role in the management of their own care during an episode of illness. Information empowerment can also help care integration and coordination along the health service continuum, across care settings, with consumers interacting with care providers to navigate the health system along an episode of illness and help ensure services are matched to their needs.

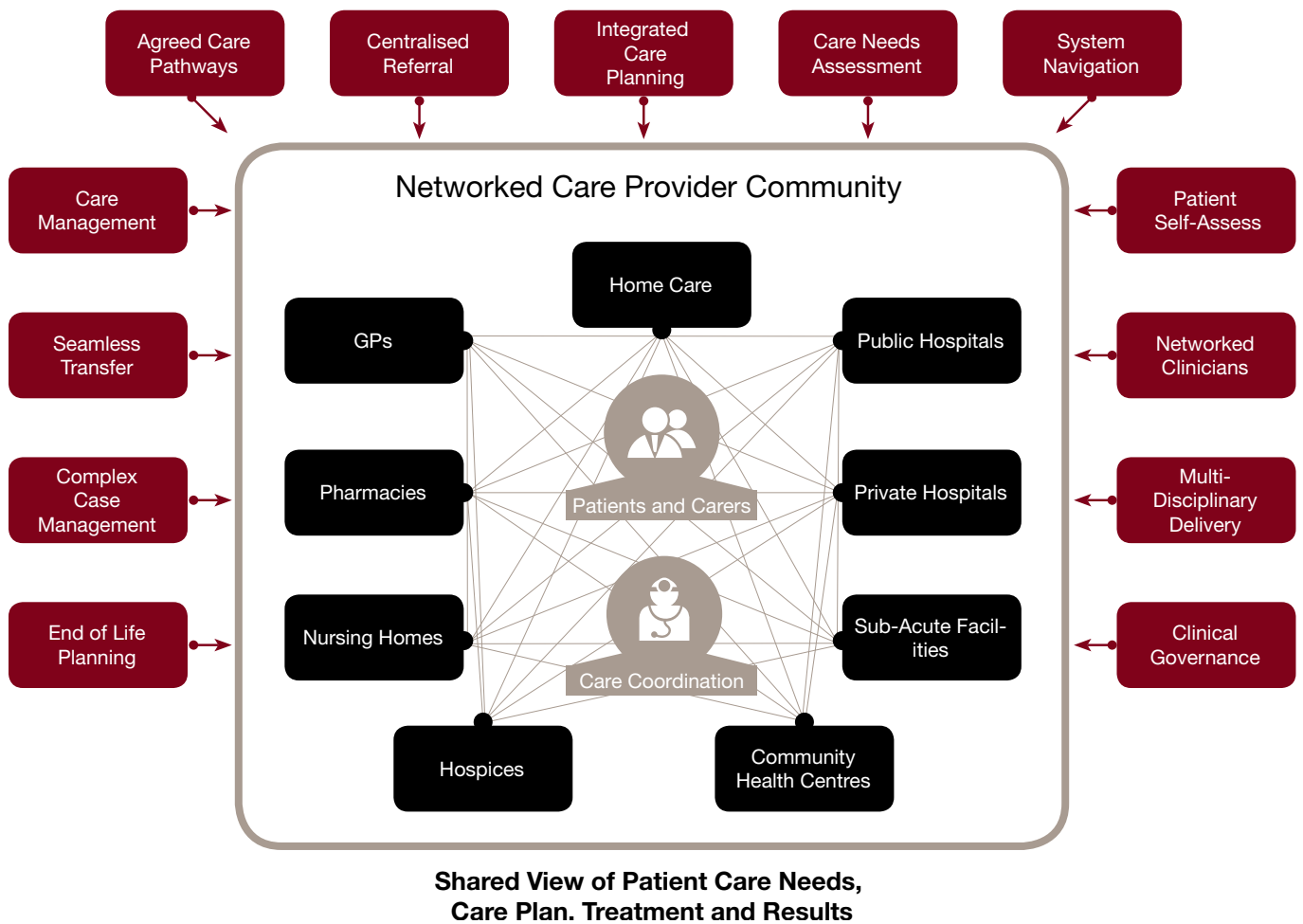
**Figure 9**  
**Consumer focused, information-enabled care**



Another pre-requisite for step-change supply side effectiveness and efficiency improvements is the networking of care provider communities within health system catchment areas (see Figure 10). This will be essential for the implementation of cross-care setting service models and integrated care pathways. This will involve not just networking of care providers and care facilities, but also networking of key functions such as care needs assessment, care planning, care placement, case management, patient referral, health system navigation, patient transfer and clinical governance.

*Figure 10*  
**Integration of core functions**

**Integration Functions**



Building eHealth capabilities to directly support cross-care setting integrated service models and care pathways will require much more of a systems approach to capability building than the department or facility focus that has driven much of the investment in eHealth in Australia to date. Approaches to eHealth capability design and investment that don't consider the requirement to exchange information across care settings compound the fragmentation of service delivery.

Fundamental to effective and efficient networked care delivery is a shared view of a patient's care needs, care plan, treatments and results across the provider community along the full extent of an episode of illness. Central to this will be the design and implementation of an electronic health record that goes well beyond the limited functionality and benefits offered by Australia's Personally Controlled Electronic Health Record (PCEHR). The electronic health record required to support the integrated service models and care pathways can be nothing short of a 'cradle to grave' longitudinal record of an individual's health history, segmented as required, and that can be accessed by all providers (with appropriate permissions) within a health catchment area, and can be utilised by that individual to manage and improve their own health along the consumer health status continuum.

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# *Creating the reform narrative*

Delivering reforms to improve the health of Australians requires a holistic approach. This involves considering both the supply and demand for health services, and improving the way that all elements of the system work and interact with each other. All Australians, not just health interest groups, will need to be mobilised as the system is improved in coming years around a compelling reform narrative.

The fundamental imperative, in our opinion, is that Australians must take greater responsibility for their own health. An honest conversation is required that helps people to understand and accept their share of responsibility to slow the growth in demand on our health system. This will ensure that the supply of services can be sustained into the future.

The first step in establishing a case for change is to bring together all key stakeholders. Taking a strategic view of the whole system will help to achieve a common understanding of its problems and inefficiencies, and the risks to its future sustainability. This will provide a stronger reform foundation than narrowly assessing the future affordability of individual health programs. Reform should steer away from this type of ‘salami slicing’ that results in resources being shifted sideways from one area to another, typically accompanied by blame-shifting between governments and other stakeholders.

Finally, all stakeholders must work together to develop a health system action plan based on a common set of reform imperatives. This should be coordinated at a national level. However, it should be implemented at local level and contain initiatives tailored to each geographical area’s unique requirements. The result must be coherent, mutually supporting reforms that ensure all parts of the health system work together. This will slow the growth in demand for services, increase program efficiency and effectiveness, and improve the health of all Australians.

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# Endnotes

<sup>1</sup> 2015 Intergenerational Report: Australia in 2055, March 2015

<sup>2</sup> ‘Catchment areas’ are specific geographic areas for which health services are responsible. They contain a population with an associated burden of disease (current or projected) that the health service is responsible minimising through the delivery of services across the health value chain. The most common examples in Australia are Local Health Districts (LHDs) or Hospital and Health Services (HHS)

<sup>3</sup> Sources: ACHR, Towards a Health Productivity Agenda for Australia, 2011; NSW Auditor General’s Report— Performance Audit – Delivering Care out of Hospitals, September 2008; NSW Auditor General’s Report, Managing Operating Theatre Efficiency for Elective Surgery, July 2013; AIHW, Australia’s Health 2012; Centre for Independent Studies, How the NSW Coalition should Govern Health: Strategies for Micro-economic Reform, 2012; National Health and Hospital Reform Commission, The Australian Healthcare System – The Potential for Efficiency Gains, June 2009 A; Productivity Commission, Assessing Productivity of Health Service Delivery in Australia – Some Experimental Estimates, December 2007; NSW Auditor General’s Report, Focusing on Health, December 2012; Productivity Commission, Public and Private Hospitals – Research Report, December 2009; Strategy& reports – NSW ED Demand Study (2008) and Queensland Sub-Acute Demand Study (2010)

<sup>4</sup> 2015 Intergenerational Report: Australia in 2055, March 2015

<sup>5</sup> See for example, NSW Auditor General’s Report – Performance Audit – Delivering Care out of Hospitals, September 2008

<sup>6</sup> Source: Australian Health Policy Collaboration, Chronic diseases in Australia: Blueprint for preventive action, June 2015

<sup>7</sup> See, for example, Karl Ludwig von Bertalanffy, General System Theory: Foundations, Development, Applications, 1968

<sup>8</sup> This is a way of classifying the population in terms of the life stage/age.

- *Infancy* = The earliest period of childhood, the phase between birth and acquisition of language, typically comprises the first 2 years in a child's life
- *Childhood* = Full acquisition of speech and second dentition, extending social contacts beyond family, typically starts at 2 years until 13 years
- *Adolescence* = Starts with onset of puberty until cessation of growth, peak velocity of growth/reaching sexual maturity characterise this phase, typically spans the age of 14-19
- *Young adulthood* = Phase of founding a family and peak fertility, young adults are mostly in good health, generally a person between 20 and 39 years old
- *Adulthood* = The period of time around the third quarter of the lifespan, although visual signs of ageing occur, most adults can expect to live well into old age, 40-64 years
- *Old Age* = Consists of ages nearing or surpassing the average life span of human beings, in view of average life expectancy in Australia, 65+ years constitutes "old age"

<sup>9</sup> This is a way of classifying the population in terms of their health status which correlates with their need for health and related social services.

- *Well* = State of complete physical, mental, and social well-being, no limitations in overall quality of life
- *At Risk* = Individuals may have early signs and symptoms of illness, other individuals may be exposed, or have the potential to be exposed, to environmental and/or occupational hazards, minimal limitations on quality of life
- *Acutely Ill* = Patients suffering from sickness with an abrupt onset and usually a short duration, the disease is rapidly progressive and in need of urgent care, limitation on quality of life coincides with disease duration
- *Chronically Ill – Independent* = A chronic condition is persisting over a long period of time (3 months or more), mild chronic diseases have a limited impact on patients' lives, and they are still able to maintain an independent lifestyle – this varies across the full spectrum

- *Chronically – Dependent* = Chronically dependent patients typically suffer from long-lasting diseases from which they might not be cured at all and depend on support in daily routines, diseases have substantial impact on the patients' lives

<sup>10</sup> National Health and Hospitals Reform Commission, A Healthier Future For All Australians – Interim Report, December 2008

<sup>11</sup> AIHW, Australia's Health Expenditure 2013-14

<sup>12</sup> Organisation for Economic Cooperation and Development (2008), Health data 2008

<sup>13</sup> *Episodes of illness can require one or more episodes of care which, in turn, can require on or more occasions of service* – definitions developed by Professor Kathy Eagar, Centre for Health Service Development, University of Wollongong

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