



**Australian Government**  
**Productivity Commission**

# Innovations in care for chronic health conditions

PRODUCTIVITY REFORM CASE STUDY

MARCH 2021



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ISBN 978-1-74037-719-5 (PDF)

ISBN 978-1-74037-718-8 (Print)



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### An appropriate reference for this publication is:

Productivity Commission 2021, *Innovations in Care for Chronic Health Conditions*, Productivity Reform Case Study, Canberra.

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### The Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website ([www.pc.gov.au](http://www.pc.gov.au)).

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# Foreword

This is the second report in a series of case studies on productivity reforms across the Australian Federation. The aim of the case studies is to inform and diffuse knowledge and practices across all jurisdictions, and to identify reform opportunities. They are not accountability mechanisms or benchmarking exercises that judge the performance of jurisdictions, or comprehensive investigations into broad areas of policy.

The Productivity Commission selects topics for case studies — informed by discussions with the Australian, State and Territory Governments — that relate to widely acknowledged and common issues among multiple jurisdictions and contribute to new or adapted policies.

This report is about innovative initiatives that prevent people’s chronic health conditions from deteriorating or improve their management. Such initiatives aim to promote people’s wellbeing, increase the efficiency of the healthcare system and reduce hospital use. The innovations highlighted in this report offer practical insights to service providers and policy makers seeking to translate abstract frameworks into sustainable change in service delivery.

In taking a case study approach, this report is a companion to several Commission inquiries that have sought to make human services more efficient and responsive to consumers, such as the five-yearly Productivity Review (*Shifting the Dial*), and separate inquiries into Human Services and Mental Health.

The Commission would like to thank the many people and organisations who told us about their experiences, and all Australian, State and Territory Governments for their participation in this project (appendix A).

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## Disclosure of interests

The *Productivity Commission Act 1998* specifies that where Commissioners have or acquire interests, pecuniary or otherwise, that could conflict with the proper performance of their functions during an inquiry they must disclose the interests.

- Mr Spencer has advised the Commission that he is the Chair of the Board of Directors of Coordinare, the Primary Health Network for South Eastern NSW.

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# Abbreviations

ABF	Activity-based funding
ABS	Australian Bureau of Statistics
ACCHS	Aboriginal Community Controlled Health Service
AIHW	Australian Institute of Health and Welfare
CCMM	Chronic Conditions Management Model
CHB	Chronic hepatitis B
ED	Emergency department
GCPHN	Gold Coast Primary Health Network
GP	General practitioner
GPwSI	General practitioner with special interest
HCH	Health Care Homes
IHPA	Independent Hospital Pricing Authority
IUIH	Institute for Urban Indigenous Health
LHN	Local hospital network. This report uses LHN to refer collectively to organisations that manage public hospitals. These include local hospital networks, local health districts, hospital and health services, local health networks, health service providers and Tasmanian health organisations.
MBS	Medicare Benefits Schedule
MHR	My Health Record
PHN	Primary health network
PIP QI	Practice Incentives Program Quality Improvement
RPH	Royal Perth Hospital
WSLHD	Western Sydney Local Health District

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# Contents

<b>Foreword</b>	<b>iii</b>
<b>Abbreviations</b>	<b>v</b>
<b>Overview</b>	<b>1</b>
<b>1 Learning from innovations in care for chronic health conditions</b>	<b>19</b>
1.1 Chronic conditions are becoming more prevalent and costly	22
1.2 Australia has had success in preventing ill-health, but could do more	26
1.3 Making the case for preventive health can be a complex exercise	29
1.4 The contribution and approach of this report	35
<b>2 Supporting people to manage their chronic conditions</b>	<b>43</b>
2.1 Self-management of chronic conditions is essential, but it can be hard to achieve	45
2.2 Simple tools and support can make a big difference	49
Case study 1 — Nellie	50
Case study 2 — Turning Pain into Gain	53
2.3 Supporting people on their terms	55
Case study 3 — One Stop Liver Shop	57
Case study 4 — Monash Watch	61
2.4 Supporting self-management is one step towards strengthening consumer partnerships	63
<b>3 Empowering the health workforce to deliver better outcomes</b>	<b>67</b>
3.1 Drawing on many professionals' skills in care teams	70
Case study 5 — WentWest's General Practice Pharmacist program	74
3.2 Supporting GPs to provide more complex care	78
Case study 6 — Sunshine Coast's GPwSI model of care	79

---

3.3	Developing peer support roles to improve the consumer experience	82
	Case study 7 — Choices	84
3.4	Growing the Indigenous health workforce	85
<b>4</b>	<b>Building and sustaining collaboration</b>	<b>89</b>
	Case study 8 — Western Sydney's COVID-19 response	90
4.1	Helping workers collaborate in a systematic way	92
	Case study 9 — Royal Perth Hospital Homeless Team	94
4.2	How leaders and managers support collaboration	101
	Case study 10 — The Collaborative	105
4.3	Using opportunities to fund collaboration	110
<b>5</b>	<b>Improving the flow and use of information across the health system</b>	<b>113</b>
5.1	Barriers to using data in the health system	116
5.2	Making the most of consumer information within primary care	119
	Case study 11 — Primary Sense	121
	Case study 12 — Chronic Conditions Management Model	123
5.3	Improving information flows between primary and acute care	129
	Case study 13 — Smart Referrals	130
5.4	Better data linkage can offer insights to consumers, practitioners and policy makers	132
	Case study 14 — Lumos	133
<b>6</b>	<b>Embracing funding innovations</b>	<b>137</b>
6.1	Overview of funding arrangements	139
6.2	Current funding arrangements can lead to poor outcomes	144
6.3	Making the most of the current arrangements	153
	Case study 15 — Institute for Urban Indigenous Health	154
6.4	Pooling funding to deliver integrated care	157
	Case study 16 — Collaborative Commissioning	159
6.5	Moving away from activity-based funding	160
	Case study 17 — HealthLinks	161
6.6	Taking calculated risks to advance funding reform	169
<b>A</b>	<b>Conduct of the study</b>	<b>175</b>
	<b>References</b>	<b>179</b>



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# Overview

## Key points

- Innovative approaches to managing chronic health conditions are present in all types of health services and in all jurisdictions.
  - These innovations improve people’s wellbeing and reduce the need for intensive forms of health care, such as hospital admissions. They achieve this through improved responsiveness to consumer preferences, greater recognition of the skills of health professionals, effective collaborative practices, better use of data for decision making by clinicians and governments, and new funding models that create incentives for better management or prevention of disease.
  - The case studies of innovation included in this report show that there are practical ways to overcome long-standing barriers to health reform. They enable quality care for people with chronic health conditions and are backed by evidence of better outcomes and greater efficiency. Implementing them more widely, with adaptation to local needs where required, would deliver benefits to consumers, practitioners and governments.
- There are substantial barriers to the development and broader diffusion of healthcare innovations.
  - Innovation often relies on the commitment of dedicated individuals and the support of local health service executives. But unless there are strong incentives for change, entrenched organisational and clinical cultures tend to maintain the status quo.
  - Existing funding structures, which are largely based on the volume of healthcare services delivered, do not encourage investment in quality improvement. Some trials of innovative approaches are only funded for short periods, making it difficult to achieve outcomes and dampening the willingness of clinicians to participate.
  - There are few structured mechanisms to encourage the diffusion of innovation. Health services often try to solve problems that have been overcome in other places or other parts of the system.
- Implementing innovative interventions on a larger scale depends on effective diffusion mechanisms and funding reform.
  - There are existing institutions in the health system that could contribute to the diffusion of evidence on quality improvement and support better care for people with chronic conditions.
  - Trials of blended payment models and pooled funding — supported by data and models that ensure interventions assist the people who face the highest risks of avoidable hospitalisation — offer a path towards funding reform.

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Australians are living longer, largely due to health services that identify and treat illnesses more effectively. But an ageing population and increasingly prevalent risk factors such as obesity lead to many people spending long years living with chronic health conditions, including diabetes, arthritis and cardiovascular disease. These chronic conditions adversely affect the health, wellbeing and income of nearly four in ten Australians. For some, the effects are debilitating.

For the health system, the increasing prevalence of chronic conditions comes at a substantial cost. About \$38 billion is spent annually in the health system to provide care to people with chronic conditions (figure 1). Costs are higher when considering the income lost due to lower productivity, reductions in tax revenues and increases in welfare payments.

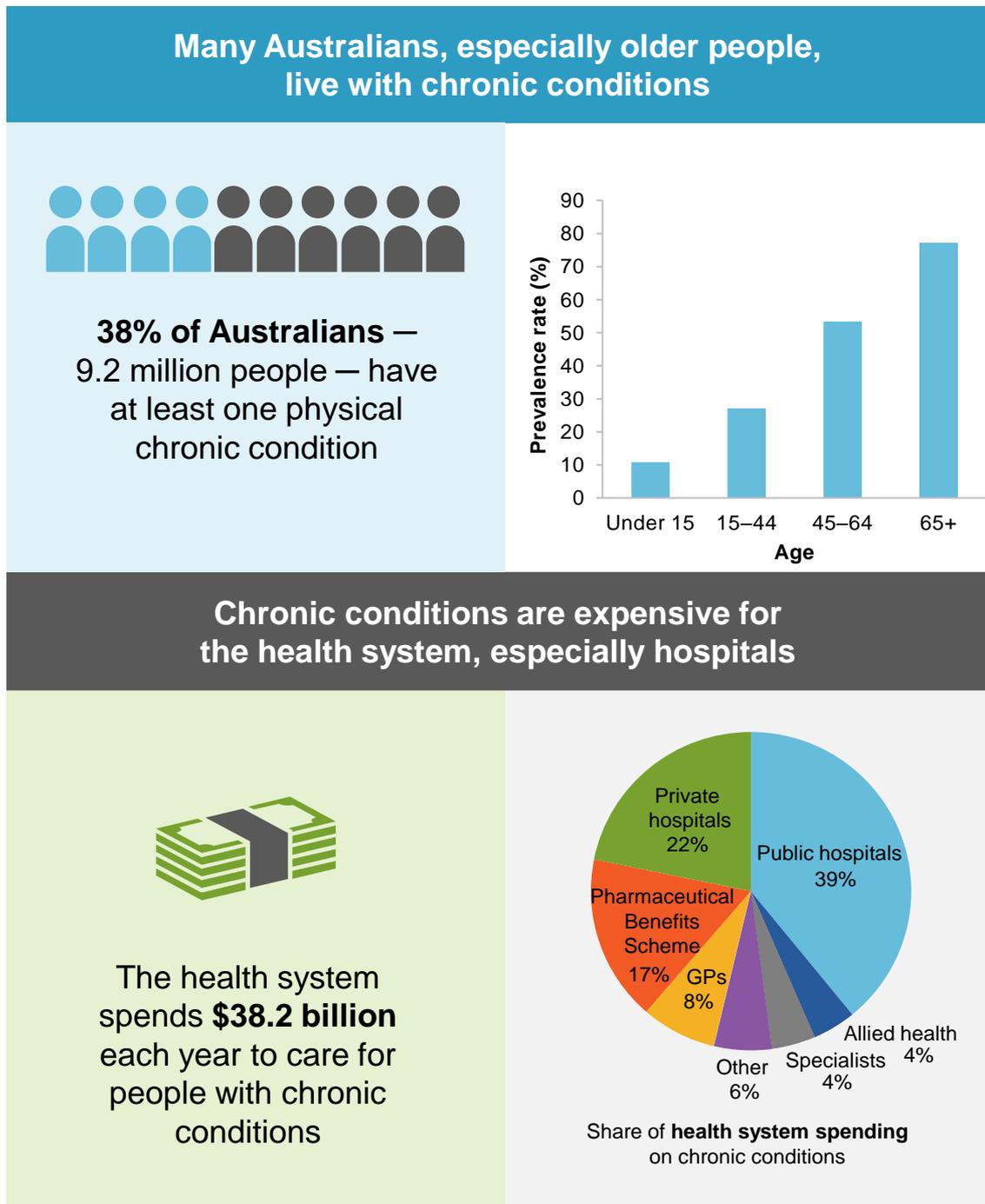
Prevention can reduce the human and financial costs imposed by chronic conditions; the reduction in smoking rates and the associated burden of disease is one example of success. Nonetheless, there is still significant scope to mitigate the effects of chronic conditions on people's lives and improve the management of such conditions following a diagnosis. This would promote wellbeing and produce economic benefits.

Governments have long sought to change the focus of the health system, towards prevention of ill-health and integrated person-centred care. System-wide reforms have enabled improvements in health services. For example, the introduction of activity-based funding and the creation of primary health networks (PHNs) have improved efficiency and collaboration. But there is also significant successful innovation on a smaller scale, developed and implemented at a local level. These local innovations offer important, practical insights into ways to improve outcomes for people with chronic conditions.

The Council on Federal Financial Relations tasked the Productivity Commission with finding examples of successful innovations, and examining how these work. Beyond their positive effects on people with chronic conditions, such innovations provide important insights for the health system. The system has substantial limitations, including its focus on the needs of providers rather than consumers, limited collaboration, fractured funding arrangements, poor data practices, and barriers to the use of the full capabilities of its diverse workforce. Understanding how innovative interventions have overcome some of these system inadequacies offers valuable and practical lessons for broader reform.

To gain the full benefits of these innovations, the lessons they offer need to be diffused to a broad audience. However, diffusion of knowledge about the practical ways to implement innovation in healthcare is often slow, and policy makers are sometimes unaware of relevant experience in other settings of care or other parts of Australia. This report seeks to contribute to the process of knowledge diffusion.

Figure 1 **Chronic conditions are common and costly**



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## Successful innovations come in all shapes and sizes

In this report, the Commission has taken a different approach to past reviews that made recommendations for health reform. Rather than revisiting already well-known problems and designing a path to change, we started by looking at a diverse range of practical, albeit often small scale or relatively unknown, innovations already underway. We examined those that have delivered (or are on track to deliver) sustainable outcomes to understand how well-known barriers to change can be overcome, and what this means for the health system's potential and its limitations.

To identify examples of innovation, the Commission spoke with people across the health sector, including consumer and advocacy groups, government departments, hospitals and local hospital networks, PHNs, service providers, individual practitioners and academics from a range of disciplines. The people we spoke with told us about positive examples of innovation, the challenges they encountered and the ways they are working to overcome them. We focused on initiatives that seek to tackle physical chronic conditions, as prevention and management of mental ill-health were examined in detail in the Commission's Mental Health inquiry.

We often heard how innovation was frustrated by funding arrangements. Initiatives competing for limited budgets can struggle to demonstrate their value, as results take time to be realised and outcomes can be difficult to quantify. In some cases, effective innovations never make it past their trial phase or are discontinued due to funding shortages or a change in management priorities. Health funding mechanisms do little to support innovation, and process improvement tends to occur despite systemic funding policies, rather than being assisted by them. While some services have managed to use existing funding arrangements to introduce new and improved practices, innovating in this way is not straightforward. Trials of innovative funding mechanisms are underway and may pave the way to further reform.

Innovation was often achieved because dedicated individuals were committed to pursuing it and were supported by local health service executives. Successful innovation involved changes to 'business as usual' practices in the health sector. Often, this meant overcoming entrenched organisational cultures, and, in some situations, rigid administrative limits on the role of clinicians.

Change also takes time and information. Innovations examined in this report have frequently taken years to develop their service models and the relationships that sustain them. Continuous review is a common feature of success. Innovative programs sought to improve their performance by evaluating their processes, collecting and analysing data and changing course when they did not reach their goals.

Not all the innovations examined in this report required funding reform — in many cases, only modest investment was necessary and what mattered more was adopting a different way of working. We did not try to 'pick winners' between these innovations; each one has

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strengths and weaknesses. Nonetheless, there are features that distinguish successful innovations from other interventions. They include:

- considering people’s needs and preferences, and offering comprehensive support
- empowering health workers to make full use of their skills in delivering care
- building sustainable collaborative relationships between people as well as organisations
- improving the flow of information between different parts of the health system
- making the most of existing funding structures and embracing innovative approaches to funding.

## **Supporting people to manage their health**

When people play an active role in their health care — through informed self-management in partnership with medical professionals — this often leads to improved wellbeing and reduced hospitalisations. In practice, this involves people monitoring their symptoms, taking medications as prescribed, following lifestyle advice to the best of their ability and knowing where and when to seek professional assistance.

Achieving and maintaining self-management is not easy. Clinicians face time pressures and financial incentives that limit their ability to inform and work with consumers. And about half of the people who have chronic conditions find it difficult to adhere to long-term treatment plans.

Effective self-management depends on many factors, including people’s understanding of the actions required to manage their condition, their ability and confidence to undertake these actions, and their social and clinical supports. Policy frameworks promote self-management through consumer information and by building clinicians’ skills to communicate with consumers. However, these broad-brush measures do not adequately address the needs of the people who require proactive assistance.

Supporting consumer self-management can start with small, cost-effective steps, which can assist many people with chronic conditions. While such innovations exist, they currently reach only a small proportion of the population. For those with more complex needs, a range of other interventions — from health coaching to programs that deliver care tailored to the needs of remote communities — can be effective in helping people to manage their health (box 1).

Successful innovations to enhance self-management enable bespoke health care, which considers people’s circumstances and preferences, and delivers advice and support in formats that are accessible and relevant to the consumer. Their innovative use of technology and workforce skills means that the investment required is often small compared to other interventions. In addition to achieving better health outcomes, such investments may reduce expensive hospital admissions. While scaling up these initiatives and replicating them in other locations would require additional upfront funding, evaluation of these programs has shown that they lead to better health outcomes and are likely to increase the efficiency of health services.

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**Box 1****Case studies — innovations helping people to manage their chronic conditions**

**Nellie** — a system that sends friendly text messages to participants, reminding them to take their medication or monitor their health and check in with their GP. The system tailors the messages around a specific goal, agreed between the person and their GP, collects responses and sends the relevant information back to the GP for review. Evaluation in the United Kingdom showed that this system can improve health outcomes for people with chronic conditions such as diabetes, as well as improving the efficiency of primary health services.

**Turning Pain into Gain** — a program to help people living with chronic pain, delivered via group sessions, one-on-one clinical service assessments and allied health services. Parts of the program are supported by volunteers who completed the program in the past. Evaluation of the program found that it improved participants' ability to undertake various day-to-day activities, including exercise, household chores and leisure activities, and reduced hospitalisations by 78%.

**Monash Watch** — a program that employs 'care guides' who phone participants regularly, to monitor their health and wellbeing and encourage them to make healthier choices in their daily life. Using a decision support system, the care guides refer people to nurses and other health professionals when they need additional help. Interim evaluation results show that Monash Watch is achieving a 20–25% reduction in hospital acute emergency bed days compared to usual care, well in excess of the 10% reduction it set out to achieve.

**One Stop Liver Shop** — a mobile care delivery model for people with chronic hepatitis B (CHB) that brings visiting clinicians and specialised equipment to a remote community in the Northern Territory. It provides all the care needed by people with CHB, where they live, and in their language. The model combines these visiting services with a purpose-made mobile application designed to provide CHB education in both English and Yolŋu Matha. Services are coordinated by community-based educators. The service enables people to access care that would otherwise not be available to them and avoid hospital visits.

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**FINDING 1 — THE HEALTH SYSTEM CAN IMPROVE THE WAY IT SUPPORTS PEOPLE TO MANAGE THEIR CHRONIC CONDITIONS**

Health services do not always do enough to support people to manage their own chronic conditions. Innovative interventions show that supporting people with chronic conditions to be more active in their health care can be a low-cost way to improve health outcomes and prevent hospitalisations.

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## Empowering the health workforce to deliver better care

In many health services, funding constraints, workforce norms and administrative restrictions preclude the efficient matching of roles and skill sets. This means, for example, that nurses carry out routine care tasks while their time might be better spent delivering more complex care, and allied health practitioners undertake tasks that could be done by assistants. People often face long waiting times to see a specialist, even though a clinician with a different skill set, such as a general practitioner (GP), could help them much faster and achieve comparable outcomes.

Successful innovations consider the skills and training required to fulfil a role and find the workers who are best suited for the role (box 2). Some programs are redefining the role of clinicians, empowering GPs to deliver care in the community to people who would otherwise be admitted to hospital. In other cases, innovative GP practices have built teams of health professionals and other staff to enable more delegation of tasks and more efficient care. Some of these practices have adopted the patient-centred medical home model, delivering coordinated care tailored to people's needs. This transformation has often led to a reduction in practice revenues, as current funding models are not designed to support this investment.

There are also programs that have recognised that some aspects of health care can be delivered safely and effectively by workers with different skills and experience. For example, peer workers are an important part of the mental health workforce, and their contribution is expanding in services for people with physical chronic conditions.

Greater health workforce flexibility can raise service quality and lower system-wide costs. For example, Tasmania's Community Rapid Response Service provides home-based care for people at risk of a hospital visit and supports GPs to manage conditions that would normally lead to a hospital admission. Over 10 months, the program cost about \$840 000, while conventional care would have cost \$2.2 million. These figures are based on a small trial — if such an approach were successfully implemented in other jurisdictions, cost savings would be significant.

Increasing workforce flexibility requires leadership and time to address enduring organisational cultures and to provide support to staff performing new roles. We heard of cases where potentially effective changes to clinical roles were abandoned due to lack of staff engagement.

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**Box 2 Case studies — health professionals making the most of their skills**

**General Practice Pharmacist program** — Pharmacists work in general practice care teams in western Sydney to deliver clinical and education services. Their responsibilities include performing medication reviews and providing medication advice to consumers, GPs and other practice staff. The regular presence of pharmacists in general practices improved outcomes by reducing adverse drug events and instances where a person takes five or more medications daily. A separate study estimated that employing pharmacists in GP clinics could generate potential savings of \$1.56 for every dollar spent, as people have fewer adverse reactions to medications.

**GPs with special interest** — In parts of Queensland, hospitals have dedicated roles for GPs with special interest, who work with specialists to perform clinical assessments and coordinate ongoing management of care. Consumers benefit, as they do not need to wait for long periods to see a specialist and their health outcomes are on par with those of people who only see the specialist. The GP benefits from higher job satisfaction, gaining additional skills and working in a specialised area. And there are potential efficiency gains for the health system, as specialists are able to help people with more complex health needs.

**Choices** — This Perth program provides vulnerable people at risk of poor health outcomes with peer support and case management for about three months after a visit to the emergency department (ED). The program focuses on finding stable accommodation for people experiencing homelessness and assisting them with managing their chronic conditions. Peer workers offer emotional support and help people to navigate health and social services. Clients of Choices had fewer ED presentations and hospital inpatient days after engaging with the program, translating into a decline in hospital costs of \$1.1 million. They also had fewer interactions with the justice system: there was an 18% decrease in the number of clients committing offences, and a 60% decrease in the number of clients brought to the ED by police.

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**FINDING 2 — EMPOWERING THE HEALTH WORKFORCE TO DELIVER BETTER CARE HAS BENEFITS FOR CONSUMERS AND THE HEALTH SYSTEM**

Entrenched workforce practices and administrative restrictions curtail the ability of health professionals to use and develop their skills, and limit the role played by trained administrative staff and peer workers. As a result, consumers are not offered the support they need or have to wait longer than necessary to access care.

Innovative approaches consider the mix of skills most suitable to delivering care and create new roles, responsibilities and workflows that deliver effective and efficient care.

## Building and sustaining collaboration

Collaboration often improves service quality and the adaptability of the health system. This was evident in Melbourne's north west during the peak of the COVID-19 pandemic in 2020. Care pathways for people with COVID-19 were established quickly by using pre-existing collaborative arrangements between the Royal Melbourne Hospital, the local PHN and two community health services. Similar processes were put in place in Western Sydney, based on the existing collaboration between the PHN, local health district and GP practices (box 3).

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However, collaboration is not just useful in times of crisis. It can help people access an appropriate level of care when and where they need it.

Successful collaboration is often driven by individual ‘champions’ who use their personal networks to connect with other people in relevant organisations. This means that collaborative efforts are vulnerable when key participants change jobs or funding runs out. One health service manager noted that collaboration is often ‘first on the chopping block’ in times of change. To overcome this, successful innovations worked to embed collaboration as a routine feature of health services (box 3).

**Box 3      Case studies — collaboration takes many forms**

**COVID-19 clinics in Western Sydney** — a long-standing partnership enabled the primary health network (WentWest) and local hospital network (Western Sydney Local Health District — WSLHD) to rapidly develop a COVID-19 screening, assessment and management model centred on community and primary care. WentWest and WSLHD set up 20 COVID-19 screening and treatment clinics and developed a risk-based response model delivered by primary care clinics and hospitals. A dedicated clinic offered culturally safe screening and support for Aboriginal and Torres Strait Islander people living in the area.

**Royal Perth Hospital Homeless Team** — a collaborative model of care that was adapted from the United Kingdom, and relies on strong ties between the hospital, primary care and clients. The team comprises a GP, a practice nurse, a clinical hospital lead, caseworkers and an administrative assistant. Each weekday, the team meets with every person experiencing homelessness who is in the emergency department or in a hospital ward. The team works together with the client to develop a shared care plan. General practice support is provided by Homeless Healthcare and the caseworkers help to find short- and longer-term housing and address social and other issues.

**The Collaborative** — a formal partnership between the Royal Melbourne Hospital, North Western Melbourne Primary Health Network and two community health providers (cohealth and Merri Health) that has been in operation since 2012. The aim of The Collaborative is to get all parties working together through structured pathways that offer a combination of care in the community and at the hospital, depending on people’s needs. It has a clear governance framework, which identifies the roles of each organisation and outlines intended outcomes and measures of success. The Collaborative is endorsed by the chief executives of all four partners, who meet frequently to discuss strategic priorities, and are supported by a working group of senior managers from each organisation.

In individual teams, formalising collaboration can entail structured meetings or co-location of services. For service providers, a formal approach to collaboration can mean having designated roles, where staff are tasked with building relationships and communities of practice, rather than relying on existing relationships, or the expectation that communities of practice will form spontaneously. And where large organisations seek to collaborate, the relationship needs to have formal governance and accountability structures, mutual investment (either financial or in-kind contributions that mean all collaborators have ‘skin in the game’) as well as a clear pathway to achieving and tracking mutual benefits.

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Formal approaches to project management have been a major component of success in many of our case studies. Implementing innovation requires non-clinical skills that complement the clinical expertise needed to improve care for people with chronic conditions. For example, in parts of New South Wales, economists are temporarily embedded within large health services to help them identify better ways of working and plan how changes will be funded, implemented and sustained over time.

**FINDING 3 — SUSTAINABLE COLLABORATION BETWEEN HEALTH SERVICES OFTEN REQUIRES FORMAL APPROACHES**

Integrated person-centred health care is underpinned by collaboration between individuals and organisations. Yet sustained collaboration does not occur spontaneously and is often abandoned when ‘champions of change’ leave or funding runs out.

Successful innovations overcome these challenges by using formal approaches that make collaboration routine and emphasise mutual commitments and accountability for outcomes.

## **Improving the flow of information across the health system**

While health services use advanced medical technologies, they also continue to use antiquated tools like fax machines and paper records for recording and managing data. Progress towards better use of data and information technology is occurring, but the inertia that often bedevils innovation in health care persists. Data is collected but not always used, there are major knowledge gaps about preventive interventions, and information flows across the health system remain fractured. For example, 45% of GPs are not informed about patients’ treatment in hospital before those patients see the GP for follow-up care.

Our case studies show what can be achieved if information is put to better use (box 4). Innovative trials use data and advanced algorithms to identify people at risk of hospitalisation and ensure they receive care and support before their health deteriorates (box 5). But even much simpler systems can lead to significant improvement. Reports that alert clinicians to potential medication safety issues or patients who require periodic reviews enable safer and more coordinated care (box 4).

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**Box 4****Case studies — improving information flows enhances nearly every aspect of health care**

**NT Health Chronic Conditions Management Model** — The Northern Territory Department of Health (NT Health) provides primary health care services in some of the most remote and disadvantaged communities in Australia. Its 50 health centres use a single electronic health record for patient information, and this data is uploaded to a centralised data warehouse each evening. Data is extracted from the warehouse and transformed into operational reporting through a suite of Excel spreadsheets that are sent to frontline clinicians regularly. Over time, and with limited funding, these spreadsheets have evolved into a data system that provides reliable and consistent information for a population of about 28 000 people. This system generates reports that enable clinicians working in the Territory to plan better care and offer them insights that are not often available to GPs working in urban areas. It has also enabled NT Health to identify and address gaps in preventive interventions.

**Primary Sense** — Primary Sense is data extraction and analysis software developed by Gold Coast Primary Health Network (PHN) that does not require GPs to enter additional information or change their workflows. The software provides alerts to GPs about people at risk of developing cardiovascular disease, diabetes or being admitted to hospital within the next 12 months; people with high frailty scores; and those who use a large proportion of health resources. It also provides real-time medication safety alerts. In 2019-20, 56% of GPs who used Primary Sense received at least one medication safety alert.

**Smart Referrals** — The Smart Referrals software allows GPs in Queensland to create and submit electronic referrals from existing practice software and pre-fills basic client information. By automating the process, the software minimises errors and prevents referrals from being lost. There are also plans to include real time information on specialist availability and waiting lists.

**Lumos** — Lumos is a NSW Health data linkage initiative. It started as a pilot in 2016, and is now the largest collaborative project undertaken between NSW Health, the NSW PHNs and general practices. It links consumer data across primary and acute care to give insights into different aspects of the healthcare system and inform policy and planning. It has de-identified data on two million people, and it provides information to GP practices, PHNs, and other parts of the health system, such as the Collaborative Commissioning trial (box 5). The success of Lumos hinges on building relationships with data custodians to shore up support and trust in the system and its integrity.

Some of the patterns uncovered in health data show ways to develop services that address people's needs without requiring systemic reform. For example, using Lumos, the linked health dataset developed in New South Wales, one general practice found that a substantial proportion of their patients were presenting to hospital emergency departments for non-urgent reasons. This information prompted the general practice to establish a walk-in early morning clinic with a nurse to provide the care people needed.

New types of software, developed by PHNs and private providers, extract value from the data routinely collected by GPs and other clinicians. The most successful of these innovations have simple and flexible interfaces so that data entry is easy and offer GPs meaningful information that helps them make better decisions.

Our case studies have been successful not just because of the technology they use but because they make the data useful for consumers and health professionals, while maintaining

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privacy and strengthening trust in data systems. The improvements in the flow of health data were made possible by strong relationships and leadership, which ensured that the data was used in line with individual and provider expectations. This has built, and continues to contribute to, trust in these innovative information systems.

However, the use of innovative data tools is not widespread. GPs often have little time and limited financial incentives to engage in quality improvement initiatives, including greater use of data. The implementation of these innovations can also be stymied by regulatory limitations on data linkages, as well as misconceptions about privacy legislation and its implications for data sharing and governance. To create an enabling environment for the use of health data on a bigger scale, the Commission made recommendations in its 2017 inquiry on Data Availability and Use that will lead to better data governance and clearer privacy protections.

**FINDING 4 — MORE CAN BE DONE TO IMPROVE INFORMATION FLOWS ACROSS THE HEALTH SYSTEM**

Information flows across the health system are impeded by a lack of incentives and concerns about regulatory barriers.

Innovative tools, tailored to the needs of the Australian health system, can help consumers, clinicians and governments make the most of healthcare data. Such tools are successful if they are easy to use, offer information that enhances service quality or practice performance, and use technology and collaborative relationships to improve the flow of information.

Investment in such innovation, and the ongoing progress in addressing regulatory barriers and building trust in the use of data, will support more efficient information flows and improved health outcomes.

## **Embracing new funding approaches**

Funding mechanisms can frustrate innovation and preventive health interventions in two broad ways. First, funding mechanisms underpin incentives for governments, healthcare institutions and healthcare providers. Where there are few incentives for quality improvement and preventive care, providers and institutions that develop or adopt successful innovations can find that it reduces their income and may not be sustainable over the longer term.

Second, innovation often requires initial investment and flexibility in funding over the longer term, particularly as many successful innovations involve shifting or pooling funds between health services. Rigid and inflexible funding rules or limited funding for ongoing experimentation and implementation can prevent organisations from developing new ways of working or, where such innovations do emerge, make them difficult to sustain over time.

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Local innovations have thrived despite these challenges. In particular, trials of different funding approaches show that changing some of the financial incentives in the health system can increase system efficiency and lead to better outcomes for people with chronic conditions.

## **Funding mechanisms stifle innovation**

The current design and allocation of health funding is problematic, with fractured funding responsibilities, volume-based payments, and funding gaps and inflexibilities. This weakens incentives for interventions in primary care that improve chronic disease management and avoid hospital use.

The Commonwealth–State funding divide — whereby the Australian Government is broadly responsible for primary care and both the Australian and the State and Territory governments fund hospitals — can reduce the attractiveness of investments in primary care where the benefits are primarily realised as reductions in hospital costs.

Further, fee-for-service and activity-based funding mechanisms, which are the predominant models used in the health system, reward service providers for the number of consumers they see, and the volume of treatment they provide. These funding mechanisms offer limited compensation for the management of chronic conditions, and provide insufficient incentives to engage in prevention, proactive outreach and quality improvement. This means, for example, that a GP clinic that implements person-centred care can face a decline in its revenue or substantially increased workloads with no increase in remuneration. Activity-based funding in hospitals has similar features — hospitals are paid for treatments they provide rather than being encouraged to keep people healthy and avoid the need for hospital visits.

There are also gaps in funding streams. For example, the Medicare Benefits Schedule (MBS) includes thousands of different services but provides limited coverage for services central to integrated care. One stakeholder told the Commission, ‘we get what we pay for, and we don’t pay for prevention’.

Some of the innovative interventions we examined rely on creative, but band-aid solutions to overcome the limitations imposed by current funding structures. Examples include hospitals in urban areas employing GPs by using administrative approaches that are most commonly used to overcome workforce shortages in rural areas and the use of philanthropy and crowdfunding to fund outreach services to people experiencing homelessness. Situations like these could be rectified through changes to the MBS.

## **Grants and flexible funding are limited in what they can achieve**

Parts of the health system, including Aboriginal Community Controlled Health Services and community health services, receive block funding. The processes currently required to renew block funding impose substantial administrative burdens and make long-term planning of person-centred care difficult. In the case of PHNs, much of their funding allocation is

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directed by the decisions of the Australian Government, and they only have a small pool of flexible funds to support innovation.

Some of the best examples of innovation in health care are funded through PHNs' flexible funding allocations. On average, each PHN is provided with about \$11.5 million each year to fund improvements in the effectiveness and efficiency of the health services, promote better health outcomes for key population groups, and also cover operating costs such as wages. This limited funding (which, in aggregate, represents 27% of the total annual budget of PHNs — or less than 0.2% of total health expenditure) makes it difficult to achieve larger scale innovation or adopt programs that have worked well elsewhere. This means each PHN must choose specific chronic conditions or aspects of clinical practice to focus on, rather than being able to support all people in their catchment areas. The Australian Government could consider additional flexible funding for PHNs to enable them to make the most of innovation and address service gaps.

Trials of new interventions are funded through various grant programs, which offer little certainty that successful innovations will continue beyond their initial phase. Funding cycles can be too short for some trials to demonstrate success. Stakeholders spoke of 'trial fatigue', and of practitioners who were unwilling to sign up to any trials or new programs because they knew there was a real risk even successful models would not be sustained over time. Longer-term funding for trials and availability of funding to embed change are likely to lead to greater and more sustainable innovation.

Private health insurers have a limited role in preventive care. However, there may be scope to reconsider the extent of their involvement. Currently, regulation allows private health insurers to fund only a limited range of interventions to improve the management of chronic conditions. Allowing an expansion in the role of private health insurers in preventive care may allow more people to access interventions that would assist them in managing their health.

## **Governments are already taking steps towards change**

Some providers have developed business models that enable them to offer integrated health services by making full use of available MBS funding. But the most innovative funding approaches use capitation funding and other models that provide financial rewards to providers that reduce use of high-cost services (box 5). The New South Wales initiative, Collaborative Commissioning, only commenced in 2019 and has not yet been evaluated, but preliminary evaluations of Victoria's HealthLinks suggest the initiative shows significant promise. The Australian Government's Health Care Homes trial also involves innovative funding. The trial has faced many difficulties, including slow uptake and staff turnover. Its evaluation offers insights to governments about the scale of the changes required in primary care to achieve reform, the time they require, and what effective implementation would entail.

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## Box 5 Case studies — funding innovation can improve health outcomes

**The Institute for Urban Indigenous Health (UIIH)** — UIIH is an example of service providers using existing funding mechanisms to develop and embed an innovative model of care. It is a collaborative arrangement that comprises five Aboriginal Community Controlled Health Services. Working together, these services developed a model of care based on screening for chronic conditions, management of such conditions through primary and allied health care and comprehensive health and social support services. To sustain this model, UIIH implemented a strategy to increase the proportion of its funding that is self-generated (largely from the MBS), reducing its reliance on grants or commissioned programs, which are commonly used by Aboriginal Community Controlled Health Services.

**Collaborative Commissioning** — a program in New South Wales that supports primary health networks (PHNs) and local health districts (LHDs) to produce joint strategies to tackle health problems in their catchment areas. Each PHN–LHD pair is expected to commit some of their funding to the solutions that are developed, with NSW Health providing short-term funding to enable new approaches to be trialled and embedded into ongoing service delivery. A key goal of the program is to demonstrate that delivery of care in the community, and avoiding hospitalisation, can lead to savings as well as improving health outcomes.

**HealthLinks** — a Victorian program that involves an agreement between the Australian and Victorian Governments to convert activity-based funding for a cohort of people who are at high risk of multiple unplanned hospitalisations into capitation funding (an annual payment to cover all the care provided to a group of people). Hospitals can use these funds to provide innovative, community-based care to the people identified as part of the cohort, with the aim of improving health outcomes. Five hospitals participated in 2020–21 and have adopted different models of service delivery, but all reported positive experiences for program participants and staff.

These funding innovations aim to support better care for people with chronic conditions, but they are modest in scale. Implementing integrated person-centred care on a larger scale requires fundamental changes to funding systems. Governments have committed to exploring funding reforms in the Addendum to the National Health Reform Agreement 2020–2025, and the national bodies that allocate hospital funding are examining alternative funding models.

## Blended funding models will likely enable the best outcomes

The outcomes of funding trials can be used to inform a move towards a blended funding model, which will support integrated care. Such a model would use different payment structures for different purposes, including fee-for-service for the bulk of health services and pooled funding for integrated care. While all payment models have shortcomings, a blended model would maximise the benefits of different payment mechanisms for consumers and providers. Components of a blended funding model can include:

- introducing pooled funding and more flexible funding for PHNs and local hospital networks (LHNs)
- making changes to the MBS to encourage activities that contribute to integrated care

- 
- using longer-term trials and allocating funding to scale up successful initiatives
  - addressing the rules that limit the role of private health insurers in prevention.

Pooled funding would bring together contributions from the Australian Government and State and Territory Governments for programs that improve care for people with chronic conditions. The rationale for pooled funding is well established. Both levels of government are likely to benefit from improvements in the efficiency of health spending that would result from more integrated care. In the long term, benefits include better health outcomes and accompanying improvements in productivity, and possible reductions in expenditure from deferred expansion of hospitals and (potentially) less intensive use of some health services. Immediate benefits may often take the form of fewer avoidable hospitalisations and reduced waiting times for hospital procedures. This may not cut healthcare costs in the short term, as the ongoing demand for health services means hospital beds do not stay empty for long. But it would lead to superior health and productivity outcomes. Since there are mutual benefits from funding reforms, the costs should be borne by both levels of government.

There are many ways in which pooling *at the system level* (as opposed to individual organisations bringing together specific funding streams) can be achieved in practice. Some PHNs and LHNs already pool funding for specific projects. There are cases where PHNs commission LHNs to deliver services and vice versa. More flexible funding for PHNs and LHNs (including giving LHNs greater flexibility to invest in community-based services), and longer commissioning contracts, could also help fund preventive care. Providing LHNs with capitation funding (rather than activity-based funding) for some people with chronic conditions could have significant benefits for prevention. The Independent Hospital Pricing Authority is exploring the feasibility of this option.

Other options for pooled funding were presented in past Commission reports. They include a possible alternative to PHN–LHN collaboration, through the establishment of Regional Commissioning Authorities, and dedicated funding pools in each LHN to improve care in the community for people with chronic conditions.

Beyond pooling, recommendations for reform have often called for funding to be allocated based on the outcomes achieved by health services, rather than the volume of activity undertaken. This would be a significant departure from existing models and require the collection and analysis of a large amount of data to ensure funding achieves improved health outcomes and promotes efficiency. It would also require health services to measure the outcomes they achieve, including those defined by consumers, such as patient-reported outcome and experience measures.

Shifting the focus of the health system towards pooled funding and outcome-based approaches will require major cultural and organisational changes. Lessons from our case studies suggest that strong governance arrangements, local flexibility in service delivery, and ongoing monitoring and evaluation are likely to be important factors in any successful funding arrangements.

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#### **FINDING 5 — CHANGING HEALTH FUNDING ARRANGEMENTS WILL IMPROVE INTEGRATED CARE**

The dominant health funding arrangements limit the provision of integrated person-centred care to people with chronic conditions. Successful initiatives do exist, but are often small scale, uncertain in duration or require costly efforts to assemble funding from multiple sources.

Introducing blended funding models that take advantage of the benefits of different payment mechanisms, will improve integrated care. Components of a blended funding model can include:

- introducing pooled funding and more flexible funding for PHNs and LHNs
- making changes to the MBS to encourage activities that contribute to integrated care
- using longer-term trials and allocating funding to scale up successful initiatives
- addressing the rules that limit the role of private health insurers in prevention.

The case studies featured throughout this report suggest that pooled funding arrangements will need to be supported by shared governance arrangements across multiple levels of the organisations involved, local flexibility in implementation, and monitoring and evaluation against an agreed set of outcomes, including consumer-defined outcomes.

## **Maximising the benefits of innovation requires better diffusion and funding reform**

The examples of innovation in this report reveal the diverse avenues for achieving better health outcomes for people with chronic conditions. In some cases, supportive organisations have expanded these interventions, so that they can help more people and streamline the work practices of more health professionals, but this is still a rare occurrence. Of the case studies included in this report, only three local programs (Monash Watch, Turning Pain into Gain and Choices) have been adopted by additional organisations, beyond those where they were initially developed. Others (such as Primary Sense) are gradually expanding their reach. The limited diffusion of successful innovation across the health system means that services in one part of Australia often try to find new solutions to problems that have already been overcome elsewhere.

Diffusion of innovation relies on health professionals having the knowledge, resources and time to adopt new ways of doing things. Improvements are possible in all these aspects of diffusion.

There are already some avenues to spread knowledge about successful innovations, from newsletters to academic articles, and there are opportunities to share insights from innovations at conferences and meetings; for example, PHN CEOs meet monthly. But there may also be benefits in developing more structured approaches to diffusion. This would entail the exchange of detailed information about innovations (such as their benefits,

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implementation challenges, and resources required) between professional bodies, PHNs, LHNs, governments and other parts of the health system. The MBS Review Taskforce recommended the establishment of a dedicated institute for this purpose; there are also several institutions, such as the Australian Commission on Safety and Quality in Health Care, which could take on a similar role. Regardless of the body chosen, its main tasks would be to act as a central repository of information, and to facilitate greater learning from the lessons of innovation.

Strengthening incentives for quality improvement requires broader reform. In the current system, there is limited accountability for health outcomes. Many health professionals aim to improve quality through innovation, but they are driven by their own professionalism and they often pay a significant cost, by volunteering their time or incurring financial losses, to deliver better health care. Systemic reforms with a greater focus on health outcomes rather than the volume of services would support innovative health care professionals and give more providers greater incentive to seek out opportunities for quality improvement and embed innovations.

Even where health services are aware of potential innovations, they can find it difficult to obtain the resources required to implement them. Funders have relatively weak incentives to invest in innovation — a drawback that should motivate reform. There also needs to be sufficient funding flexibility to enable providers and commissioning bodies to adopt innovations developed elsewhere. Evaluations should be conducted, published routinely and resourced adequately.

Adapting innovations to new contexts is important, but the gaps they are intended to address are often similar. For example, people with chronic conditions across Australia face common issues in accessing support to manage their health, and many health services grapple with a lack of commitment to collaboration. The local solutions presented in this report show pathways for overcoming these issues that have the potential to be applicable in diverse environments. They have improved outcomes for people and can also increase (or have good prospects of increasing) efficiency through fewer avoidable hospitalisations. Their broader implementation is therefore likely to have substantial benefits.

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# 1 Learning from innovations in care for chronic health conditions

## Key problems

- Nearly 40% of Australian adults have a physical chronic condition, which can affect their wellbeing, and social and economic participation.
- Chronic conditions also affect government budgets and the economy — Australian governments spend over \$38 billion each year to provide health services to people with chronic conditions. Preventable hospitalisations alone cost more than \$2 billion a year.
- However, the health system does not offer adequate support for people with chronic conditions. This reflects shortcomings in the health system, including: health services that are often structured around the needs of service providers rather than consumers; limited collaboration; fractured funding arrangements; a lack of public program evaluations; and health professionals who can face barriers to using their full capabilities.

## Key findings

- There are many examples of innovative local interventions that improve outcomes for people with chronic conditions. This report uses a case study approach to examine a range of practical and innovative solutions developed across the health system.
- These examples offer insights into actions and policy settings that could improve people's outcomes and enable greater innovation and efficiency across the health system.
- A lack of published evaluations constrains the diffusion of innovative health initiatives. Where evaluations are published, they are not consistently used to improve service delivery.
- Investing in data and evaluation, close partnerships between researchers and decision makers, and careful use of models can improve the quality of evaluations and make them more useful.

This report is the second in a series of projects examining innovative programs and policies that have the potential to enhance productivity and increase Australians' wellbeing. These projects are intended to inform, diffuse knowledge and practices, and share lessons from successful innovation.

The focus of this report is on practical examples of innovations that improve outcomes for people with chronic health conditions.

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Physical chronic conditions are common, with about 38% of Australians having at least one such condition (figure 1.1). For many people, chronic conditions diminish their health, wellbeing and income. For some, the effects are debilitating. Chronic conditions also impose large economic costs on the people diagnosed with them, their communities and the health system. The prevalence of chronic conditions, and their consequences for individuals and the health system, make a clear case for their better management (section 1.1).

Many of the innovative healthcare approaches described in this report are based on the principles of integrated person-centred care, which give greater weight to coordinated services that meet people's preferences, experiences and agency (box 1.1). Governments have put in place a number of policies that aim to support a transition towards person-centred care (section 1.2).

### **Box 1.1      Implementing integrated person-centred care**

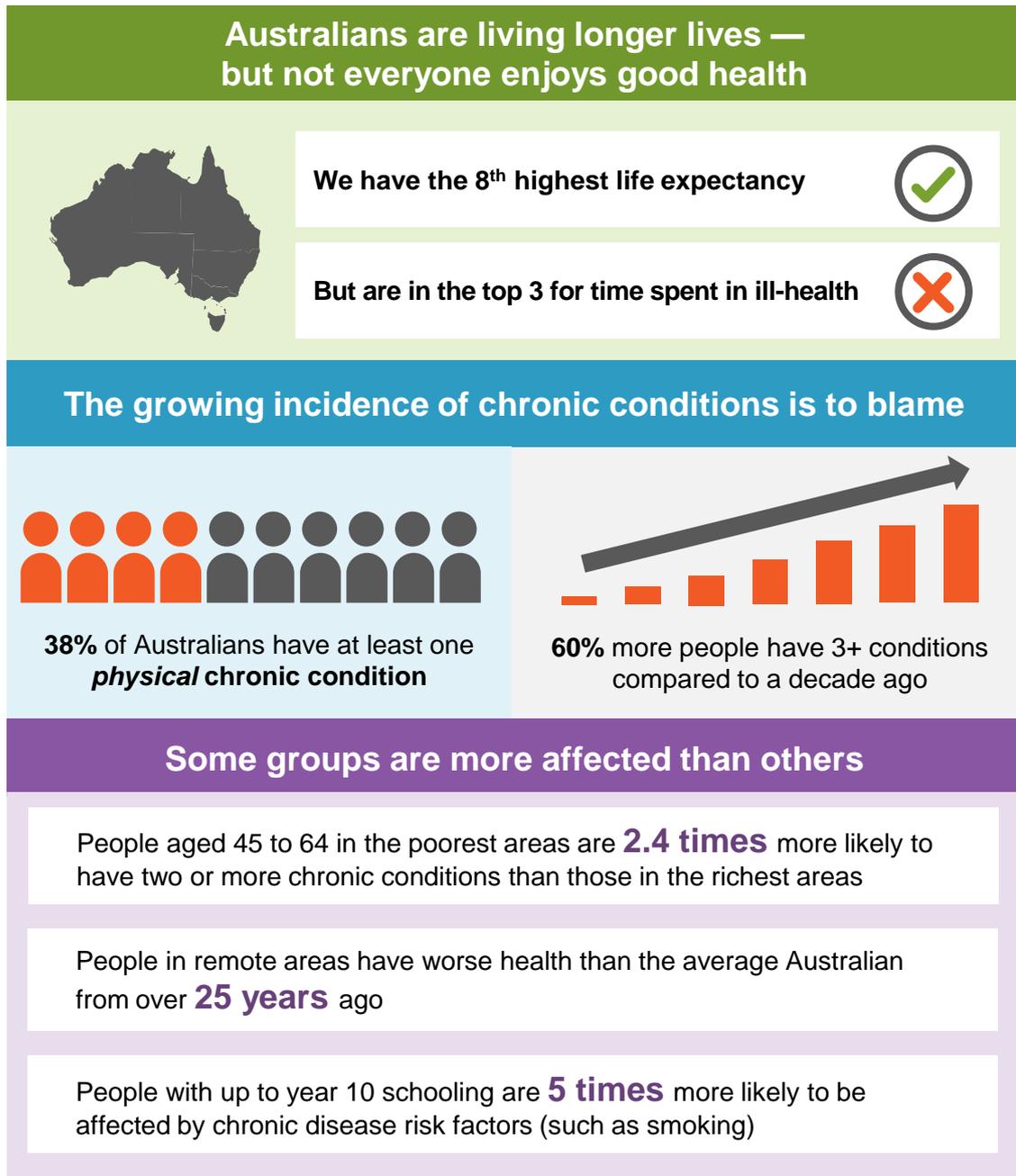
For many decades, health practitioners, experts and policy makers have been considering ways to create a more integrated person-centred health system. There is broad consensus that a person-centred health system can deliver better care for people — in particular for those with chronic conditions — as well as benefit taxpayers through improved efficiency in health care (ACSQHC 2011). The importance of more integrated person-centred care has been recognised in numerous strategies and agreements, dating back to the National Chronic Disease Strategy published in 2005 (NHPAC 2005; box 1.2) and most recently in the Addendum to the National Health Reform Agreement 2020–25 (box 1.2).

Achieving integrated person-centred care requires change across every aspect of the health system. This includes:

- a conceptual change in how healthcare professionals carry out their roles, to enable them to see people as partners in their care, give more weight to their needs and preferences, and consider the full set of circumstances a person may face rather than focusing on a list of symptoms to be managed
- changes in the way health services operate, to enable integrated care, based on effective information flows and efficient use of skills
- governance changes that promote and sustain integration and collaboration in a systemic way, rather than relying on individual 'champions of change'
- organisational and funding changes that embed a culture of continuous improvement and support discovering new ways of doing things by undertaking well-planned trials and learning from their outcomes
- changes to the way governments fulfil their joint funding responsibilities, to reduce the effects of silos and to enable cross-jurisdiction and cross-portfolio investments.

There are many policy documents that discuss potential ways to approach these changes, but far fewer practical examples of how to put them into practice. The case studies in this report have developed ways to implement and sustain these changes, and can be instructive in considering how to approach broader health reform.

Figure 1.1 **Many Australians are living healthier lives — but not everyone benefits equally<sup>a,b</sup>**



<sup>a</sup> Rankings are based on the 2019 Global Burden of Disease study, which includes 204 countries and territories. <sup>b</sup> The healthy life expectancy at birth for males (females) in remote and very remote areas is 5.2 (5.8) years less than in major cities (AIHW 2019a). These gaps are larger than the change in average healthy life expectancy of the Australian population between 1990 and 2017 (GBDC 2018) — indicating that people in remote areas have worse health than the average Australian from over 25 years ago.

Sources: Commission estimates based on ABS National Health Survey: First Results, 2017-18, Cat. no. 4364.0, table 1.1, table 1.3, table 6.1, table 18.1 and table 19.1; GBDC (2020).

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This project takes a different approach to past reviews that made recommendations for health system reform (section 1.3). Rather than revisiting already well-known problems and designing a path to change, we started by looking at practical solutions already in play, focusing on those that delivered sustainable, improved outcomes over time. We focused on successful initiatives to understand how barriers to improved outcomes can be overcome, and what this means for the health system’s potential and limitations.

Through extensive consultations, we found examples of innovation throughout Australia, and in every part of the health system, from independent general practices to large hospitals. These innovations suggest what a health system might look like if it consistently implemented the principles of consumer empowerment, better workflows, strong collaboration, efficient information flows and funding approaches that support integrated person-centred care.

Most of the innovations discussed in this report are small in scale and local. But most could be adopted more widely, bringing benefits to many Australians. There are currently limited opportunities for diffusion of innovation across the health system, including innovative approaches that could improve care for people with chronic conditions (section 1.3). As explained by the Medicare Benefits Schedule (MBS) Review Taskforce:

While there are many innovators in Australian healthcare, there is no clear pathway to inform or support the rest of the profession in the use of evidence-based innovation and often very valuable innovations are undertaken by individuals in their own hospital or practice with no ability or process to spread these across the health system ...

Process improvement type innovation has significant implications for both improving quality for consumers and decreasing cost to the health system. (MBS Review Taskforce 2020, p. 47)

## **1.1 Chronic conditions are becoming more prevalent and costly**

Australia has a high-quality health system and good health outcomes compared with its global peers. But the health system is being challenged by a rising tide of chronic conditions (figure 1.1), which have risen in prominence as many of the other sources of ill-health (such as infections) have abated.

About 66% of the burden of disease<sup>1</sup> is attributable to (partly preventable) chronic conditions — non-communicable conditions that collectively have a prolonged effect on health, are not readily cured once acquired, often coexist and share common risk factors, and require regular management to prevent progression or to reduce the risk of acute episodes and hospitalisation (AIHW 2019a, 2020c). The ABS definition of chronic disease includes cancers, diabetes, chronic obstructive pulmonary disease (COPD — such as emphysema),

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<sup>1</sup> The burden of disease quantifies the effect of living with illness and injury and dying prematurely, in terms of years of healthy life lost from death and illness.

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asthma, cardiovascular diseases (such as heart attacks, angina and strokes), chronic kidney disease, mental and behavioural conditions, arthritis, osteoporosis and back problems.<sup>2</sup>

The prevalence of chronic conditions is high, with 38% of Australians (9.2 million people) having at least one chronic physical condition in 2017-18 (ABS 2018, table 19.1). Interventions that improve the health and wellbeing of people with chronic physical conditions are the focus of this report. The prevention and management of mental and behavioural conditions was reviewed in depth in the Commission's recent inquiry into mental health (PC 2020c). Nonetheless, the policy findings in this report are as relevant to mental health services as they are to physical health.

People with chronic conditions face significant costs, including the direct costs of attending multiple appointments with healthcare professionals, the cost of medicines and other therapies, lost income and productivity, and the adverse effects that ongoing illness can have on people's wellbeing. These effects can extend to carers, family members or friends of people with chronic conditions. And there are also costs for the entire community — one study estimated that annual lost income by people aged 45 to 64 years due to some of the most common physical chronic conditions would reach \$20.5 billion by 2030. The loss of income was estimated to lead to a loss of \$4.7 billion in tax revenue and additional welfare payments of \$7.3 billion (Schofield et al. 2016).<sup>3</sup>

The health system incurs significant expenditure, estimated at \$38.2 billion in 2015-16,<sup>4</sup> to provide care to people with chronic conditions, in particular when they are admitted to hospital (figure 1.2). Many hospitalisations that arise from chronic conditions are preventable if adequate care is provided in the community. The cost of these preventable hospitalisations alone is about \$2.3 billion a year (AIHW 2020b). Even modest reductions in the prevalence of chronic disease and better management when it already exists have the potential to produce large economic benefits.

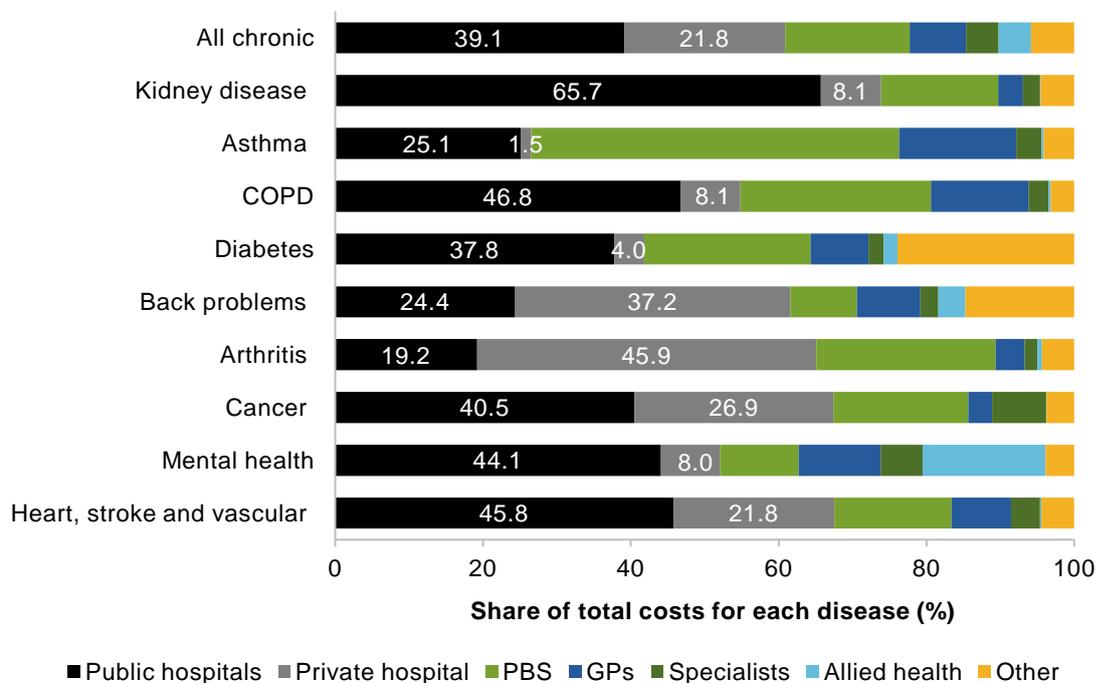
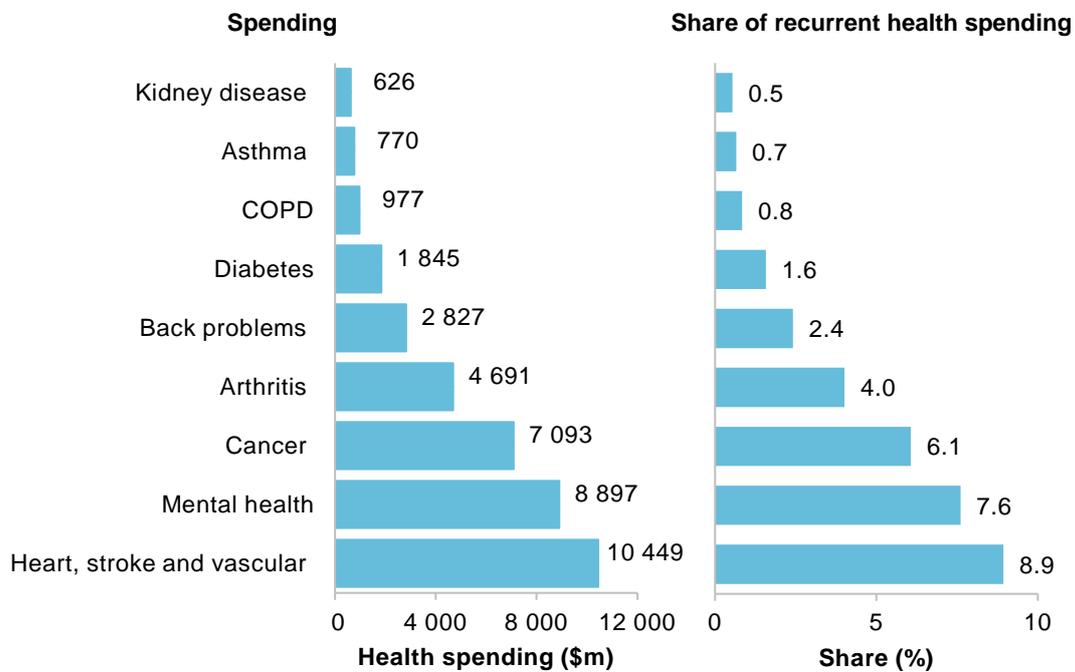
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<sup>2</sup> There is no agreed international definition of chronic conditions, with varying views about the duration that qualifies a condition as chronic, the particular diseases included (with some excluding Alzheimer's disease and mental illness) and the relevance of prognosis for a condition. The ones listed here and in the charts are the subset of chronic conditions identified by the ABS and the Australian Institute of Health and Welfare (AIHW).

<sup>3</sup> The study examined the economic costs of stroke, cancer, coronary heart disease, type 2 diabetes and chronic obstructive pulmonary disease for people aged 45 to 64 years, projected from 2015 to 2030.

<sup>4</sup> Drawn from the AIHW 2019 database on *Disease Expenditure in Australia 2015-16* using the ABS definition of chronic disease, but excluding osteoporosis, which is not separately identified. The total recurrent costs of chronic disease and share of total recurrent spending relate only to those costs that can be attributable to a given disease (so ambulance services, private prescriptions, health administration and public health, among other costs, are excluded) (AIHW 2019c). Given uncounted costs, the total expenditure related to the burden of chronic disease in 2015-16 was significantly more than \$38.2 billion.

**Figure 1.2 Recurrent health costs attributable to chronic disease are mainly incurred in hospitals**  
2015-16<sup>a</sup>



<sup>a</sup> Based on ABS categories of chronic disease, but excluding osteoporosis. Only recurrent spending that is attributable to given diseases is included.

Source: Derived from AIHW 2019, *Disease Expenditure in Australia 2015-16*, Cat. no. HWE 76.

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In part, the alarming rates of chronic physical illness are a consequence of success. As life expectancy increases, the gradually accumulating wear and tear of life is realised as chronic conditions. In addition, better treatment of chronic conditions can lead to longer measured durations of the disease. This results in particularly high prevalence of chronic conditions among older Australians — 34% of the total burden of disease in Australia is borne by people aged 70 years and above, although they account for about 10% of the population (AIHW 2019a). Older Australians are also much more likely to have multiple chronic conditions and poorer health literacy (ABS 2008; AIHW 2020d).<sup>5</sup> This poses a challenge for self-management and consumer empowerment, which are important elements of new models of care (chapter 2).

Other factors contributing to the rising prevalence of chronic conditions relate to environmental risk factors. The ‘obesity epidemic’ is the most notable of these. The overweight and obese adult population is now equivalent to the combined total population of Sydney, Melbourne and Brisbane (ABS 2020b; AIHW 2019d). This has a direct effect on the prevalence of chronic disease, given that diabetes rates are more than 4.4 times higher among obese versus normal weight adults; hypertension 3.8 times higher; and heart disease, stroke and vascular disease about 2.6 times (ABS 2018, table 5.3).

This problem does not only affect adults. The onset of some chronic conditions, or the risk factors that precipitate them, is occurring earlier in life, which may require specific preventive approaches. For example, obesity rates rose from 5% to 8% among young people aged 5 to 17 years between 1995 and 2017-18 (table S11 supplementary data to AIHW 2019d). This prolongs the period of obesity and increases the risk of type 2 diabetes (Luo et al. 2020).

While body weight is a major contributor to the burden of disease, many other behavioural risk factors, such as smoking and alcohol consumption, lie behind the prominence of chronic conditions. Even when a country has successfully reduced a significant cause of disease — as is the case for smoking in Australia — its adverse long-term effects can linger. Tobacco consumption continues to be the leading risk factor for premature death and years lost due to disability associated with disease in Australia. Although smoking rates continue to abate, some 2.6 million adults still smoked daily in 2017-18 (ABS 2018, table 9.1).

## **What this means for preventive interventions**

As the prevalence and cost of chronic conditions increase, the importance of prevention comes into sharper focus. Initiatives that delay the onset of chronic conditions or improve their management have many benefits. They improve the quality of life for those with, or at risk of, chronic conditions. They can also improve the functioning and efficiency of the health system by reducing unnecessary hospitalisations and moving the management of chronic conditions into community and primary care settings. This has benefits for all Australians.

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<sup>5</sup> Health literacy describes the ways in which people understand and can act on information about health and health care. Health literacy has two components: individual health literacy (people’s skills, abilities, knowledge and experience) and the health literacy environment (how easy or hard information or services are to understand) (ACSQHC 2014a).

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However, changes in the prevalence of chronic conditions do not affect everyone equally. The social determinants of health — such as where people live, their education and their income levels — lead to dramatic differences in their exposure to risk factors, and consequently, the prevalence of chronic conditions (figure 1.1). These effects are particularly felt by Aboriginal and Torres Strait Islander people. The rate of hospitalisation of Aboriginal and Torres Strait Islander people for chronic conditions is 3.1 times the rate for non-Indigenous people (SCRGSP 2020, p. 8.21), and this rate has increased over time (SCRGSP 2020, p. 8.18).

These ratios illustrate both the importance of prevention efforts and a key challenge they face. Health inequalities, originating from people’s individual traits and the environmental factors that influence them, present far more difficult challenges to health services than can be overcome through even the most comprehensive clinical intervention.

Nevertheless, as shown by several case studies in this report, it is possible to mitigate some of the impacts of disadvantage on health status. In particular, this happens when interventions are tailored to people’s needs and designed to suit local circumstances.

While the local context is important, the innovative health initiatives we examine in this report operate within a broad preventive policy landscape. This landscape has both helped and hindered innovation — in some cases providing the impetus for meaningful change; and in others, creating incentives to continue with conventional models of care.

## **1.2 Australia has had success in preventing ill-health, but could do more**

Preventive care can take different forms: primary prevention aims to reduce the likelihood of developing a disease; secondary prevention minimises the progress of a disease or disorder at an early stage; and tertiary prevention aims to stop deterioration of a person’s condition (AIHW 2014).<sup>6</sup>

Australia is a world leader in some areas of primary prevention, including tobacco control, skin cancer protection and cancer screening (Public Health Association of Australia 2018). These successes reflect a whole-of-community approach to prevention, using a wide range of strategies, from sanitation to social marketing.<sup>7</sup>

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<sup>6</sup> Additional forms of prevention include primal prevention (interventions that target foetal development and the first year of life) and quaternary prevention (the avoidance of unnecessary medical interventions), although these forms are not the focus of this report.

<sup>7</sup> Examples of developments that improved population health include improved hygiene in medical interventions, antibiotics and sulphonamides, beta blockers, fluoridisation of drinking water, improved neonatal care, folic acid and iodine supplementation, and improved surgical methods. Regulations with significant benefits include tobacco taxes, safety belts, air pollution standards, lead removal, and workplace health and safety obligations. Social marketing has been effective in some areas (HIV-AIDS), while diagnostic tools (MRIs, blood and DNA testing) have improved the identification of disease.

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All parts of the health system have a role to play in prevention, and examples included in this report reflect the efforts of primary care, community health organisations and hospitals. To strengthen the role of primary care in prevention, health assessments, multidisciplinary care planning and case conferencing were added to the Medicare Benefits Schedule in 1999, supporting earlier detection and better management of chronic diseases (Wilkinson et al. 2003). The Practice Incentive Program has provided payments to general practices for quality improvement, including to promote the take up of preventive interventions such as cervical cancer screening and management of asthma and diabetes (Swerissen and Duckett 2016). More recently, primary health networks (PHNs) were established to coordinate primary care at a regional level (EY 2018; Horvath 2014) and a person-centred care model is being trialled in Health Care Homes (chapter 6).

However, comprehensive primary care for people with chronic conditions, intended to keep people well and prevent hospitalisations, is still the exception rather than the rule.

Governments have recently renewed their focus on prevention to address the growing burden of chronic disease. For example, the Australian Government has developed a Long Term National Health Plan, which includes primary and preventive care; and improved prevention is one of the reform goals in the Addendum to the National Health Reform Agreement (box 1.2).

These initiatives face many of the barriers that have slowed previous reform efforts. These include:

- funding systems that do not encourage prevention in primary care, compounded by the split funding responsibilities of the Australian and State and Territory Governments
- the fragmentation of health and community services, which frustrates efforts to deliver greater continuity of care
- insufficient focus on measuring quality and consumer outcomes, particularly in primary care settings
- poor information and communication technology systems, which do not provide the timely and reliable information necessary for coordinated care (Calder et al. 2019).

Despite the consensus about what needs to change, and many reviews and recommendations, including from the Productivity Commission, progress in addressing these barriers has been slow. One reason for this is that significant shifts in the behaviour of service providers, policy makers and users are needed to overcome these barriers (Duggan, Chislett and Calder 2017). Further, the compelling economic case for managing chronic disease to prevent avoidable hospitalisations may not be salient to policy makers.

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## Box 1.2 National policies emphasise the importance of prevention

### Addendum to the National Health Reform Agreement

The Addendum to the National Health Reform Agreement 2020–2025 between the Australian, State and Territory Governments assigns responsibilities for health funding and provides the basis for potential system reform. The Addendum identifies six priority long-term reforms, many of which are associated with primary care and preventive health (COAG 2020).

1. Empowering people through health literacy — person-centric health information and support will empower people to manage their own health well and engage effectively with health services.
2. Prevention and wellbeing — to reduce the burden of long-term chronic conditions and improve people's quality of life.
3. Paying for value and outcomes — enabling new and flexible ways for governments to pay for health services.
4. Joint planning and funding at a local level — improving the way health services are planned and delivered at the local level.
5. Enhanced health data — integrating data to support better health outcomes and save lives.
6. Nationally cohesive approach to health technology assessment — improving health technology decisions will deliver safe, effective and affordable care.

The Addendum also includes provisions for trialling new funding and payment models, increasing investment in primary prevention over time, developing new financing mechanisms for scaling primary prevention initiatives, and reviewing and addressing health system barriers to prevention (COAG 2020).

### Long Term National Health Plan

The Australian Government released a Long Term National Health Plan in 2019. The Plan aims to 'make our health system better at preventing disease and promoting health, more focused on patients' multidisciplinary needs, more affordable, and more accessible to all Australians, wherever they live and whoever they are' (DoH 2019a, p. 3). This is to be achieved through four reform pillars.

- Guaranteeing Medicare, stronger primary care and improving access to medicines through the Pharmaceutical Benefits Scheme.
- Supporting public and private hospitals, including improvements to private health insurance.
- Mental health and preventive health.
- Medical research to save lives and boost the economy.

As a result of this reform plan, two new policy frameworks are being developed: a 10-Year Primary Health Care Plan and a 10-Year National Preventive Health Strategy (with drafts due for release in early 2021) (DoH 2020f; Hunt 2019). Both are informed by expert steering committees and public consultation.

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### **1.3 Making the case for preventive health can be a complex exercise**

Although prevention of illness has been a goal of policy makers for a long time, investments made in this area are still small compared to other parts of the health system and the potential benefits.

The acute care system tends to dominate decision makers' attention (Baum et al. 2013a). Issues such as overcrowded emergency departments and long elective surgery waiting lists can dictate the policy agenda, demanding immediate solutions. Consequently, despite their potential benefits, innovations in care for chronic conditions are often pushed to the back of the agenda. Further, changes that involve reallocating funding from the acute care system to primary care risk exacerbating hospital waiting lists in the short term. This visible cost can undermine support despite the potential for better health outcomes in the longer term.

The funding divide between the Australian and State and Territory Governments makes it difficult to sustain investment in prevention. Improving the management of chronic conditions in primary care imposes costs on the Australian Government, but the benefits are likely to accrue mainly to hospitals, resulting in potential savings for State and Territory governments (chapter 6).

#### **There are barriers to building the evidence base for prevention**

The shortage of high-quality, publicly available evaluations of preventive care interventions can undermine the case for increased investment in and diffusion of these initiatives. Evaluation encompasses any of the ways in which program and policy operation and impacts can be examined, including ongoing monitoring, qualitative and quantitative analysis. In our search for examples of innovation, we examined over 200 interventions, covering all states and territories, and could only find published evaluations for about half of the initiatives. Without evaluation, there is no systematic way to understand the effectiveness of alternative policies and the scope to improve them.

It is likely that evaluations were sometimes conducted but not published. For example, the Commission's survey of 509 Australian Government programs from 2016-17 to 2019-20 showed that only 44% of evaluations were public (PC 2020a, p. 104). Making evaluations public is key to enabling service providers and policy makers (in health and other sectors) to learn from the experiences of innovative initiatives.

Of the evaluations we could locate, some attempted to measure the causal effects of initiatives on people's health outcomes and changes in healthcare usage, often combined with qualitative evidence (also known as mixed-methods evaluation). But we also found studies that only used qualitative observations of outcomes, measured outputs (such as the number of clients seen), or did not adequately distinguish between the causal and the coincidental effects of a program. When interpreted carefully and in context, such

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evaluations can still contribute useful understanding of programs — but this contribution will be narrow and partial.

Our experience is consistent with findings from several reviews, which show the conduct and quality of evaluations is inconsistent, particularly at the local level (NSW Regional Health Partners 2019). For example, a review of 392 published and unpublished evaluations of health promotion programs found that the quality of evaluations — taking into account sampling methods, data collection tools, analysis methods and other factors — was generally low (Schwarzman et al. 2020).

There are different reasons why quality evaluations are not more widespread, including:

- the difficulty of defining and measuring the benefits of preventive interventions
- inconsistent availability of data to conduct meaningful analysis
- a lack of resources dedicated to evaluation.

### Benefits are hard to measure and replicate

Measuring the benefits of prevention is difficult because it requires a comparison of the outcomes of an intervention with the counterfactual — what would have happened had no intervention been undertaken. The latter cannot be directly observed and must be inferred from those who have not had the intervention. This can be difficult, particularly if the benefits of an intervention accumulate over many years.

Uncertain benefits that accrue well into the future are unlikely to be valued by decision makers as highly as short-term benefits. Former health ministers from different jurisdictions reported pressure to deal with pressing problems such as long elective surgery waiting lists or emergency department waiting times through tangible investments in new hospitals or clinicians (Baum et al. 2013a; Liu et al. 2018).

Translating theoretical benefits into practical and relevant metrics can be difficult. For example, many innovations in care for chronic conditions reduce the use of hospital services — a significant benefit to society in terms of avoided hospital care and shorter waiting lists (Propper 1995). But these savings are ‘often theoretical’ (Harris et al. 2017, p. 15), since bed days, clinic time or operating sessions are used to treat other patients. Further, there are substantial fixed costs involved in running a hospital that continue to be incurred even if beds are empty.

In the long term, lower demand for hospital services will reduce the need for costly hospital construction and expansion. The associated savings are potentially large — the Victorian Department of Health and Human Services estimated that the cost of constructing a new bed can range from \$200 000 to \$500 000 (VIC DHHS 2016b). But it is difficult to quantify the value of avoided hospital expansion attributable to individual prevention initiatives. Hospital construction does not follow a regular schedule, so while a bed may have been saved, it may not be clear where or when the fiscal benefits will accrue. And reduced demand may not be

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realised as a reduction in the absolute number of beds, but instead as a reduction in the rate of growth in demand for hospital services.

Where they deliver measurable benefits, preventive interventions take time — in some cases, many years — to show results. For example, an international meta-analysis found that integrated care initiatives that were in place for at least 12 months resulted in improved consumer outcomes and lower costs, whereas there was no significant effect for those lasting less than 12 months (Rocks et al. 2020). Other studies have found that preventive health programs delivered to children have benefits that occur decades into the future. For instance, a 1937 Danish home visiting program for families with infants showed benefits when the children reached adulthood (Hjort, Sølvesten and Wüst 2014). It reduced mortality rates by between 5 and 8% when participants were 45 to 57 years old. Other studies have found significant increases in the earnings of adults from improved access to preventive care in childhood (Bütikofer, Løken and Salvanes 2018; Hoehn-Velasco 2020). Few programs have sufficient resources to track outcomes for even a few years, so most evidence of long-term impacts comes from retrospective studies that cannot inform immediate policy (except indirectly through understanding the mechanisms and types of interventions that are effective).

Showing that the measured outcomes are attributable to the intervention is another challenge. The observed outcomes may be influenced by idiosyncratic factors such as team dynamics in interdisciplinary interventions or the demographics and customs of local communities. And it can be difficult to identify exactly what features of a multi-staged intervention, and in what combination, are the key to success (Tsiachristas et al. 2016). That is why it can be challenging to scale up or replicate initiatives in different environments without adapting them to local conditions. However, as some of our case studies show, it is possible to implement prevention programs developed in other parts of Australia and internationally. For example, some of our case studies are based on successful international initiatives, such as the Royal Perth Hospital Homeless Team (case study 9), and Nellie, a support program for people with chronic conditions (case study 1), which were both adapted from programs that started in the United Kingdom.

### Data may not be available

Many evaluations are constrained by a lack of useful, high-quality data to measure the outcomes of an initiative (Gray and Bray 2019; Huckel Schneider, Milat and Moore 2016; Lobo, Petrich and Burns 2014; NSW Regional Health Partners 2019). At a program level, data collection and evaluation may not be prioritised when short-term funding models and tight budgets lead to ‘fast-tracked’ planning processes, which are ‘weighted heavily towards intervention’ (Lobo, Petrich and Burns 2014, p. 3). Using linked data in evaluations is an alternative to primary data collection, but not without its challenges. Linked data that is relevant and timely may not be available, or may be time-consuming and expensive to access.

In some cases, it may not be possible to collect or link data on outcomes within a program’s planned lifespan. Many preventive healthcare initiatives begin with funding for only 12 months — usually too short to measure meaningful changes in health outcomes, although

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it may be sufficient to understand practitioners' and the public's receptiveness to try new approaches. Our consultations indicated that it can take months for a program to be fully operational as it takes time to recruit and train staff, design work processes, and secure support from key stakeholders such as general practitioners and community leaders (chapter 4). Unless trials are of sufficient duration, the data collected or linked may not accurately reflect the effect of the program.

As well as data collected when innovative interventions are implemented, evaluations often require data on broader aspects of the health system. Across the health system, the collection, sharing and linkage of information is patchy. In particular, there is insufficient data on primary care, and the interactions between the primary and acute care sectors (NSW Regional Health Partners 2019; chapter 5). According to participants in the AIHW's consultation on a national primary healthcare data asset, the Australian Government's decision to discontinue the Bettering the Evaluation and Care of Health (BEACH) dataset (Britt et al. 2016), which measured general practitioner clinical activity, left a 'large gap' in the evidence base (AIHW 2019b, p. 14). However, the University of Sydney maintains the BEACH dataset, which contains 18 years of data, and the Australian Government is funding the AIHW to establish a National Primary Health Care Data Asset (AIHW 2019b). In the meantime, the absence of data on primary care is a barrier to developing the evidence base for prevention, as many preventive healthcare interventions are based in the primary care sector.

### There is a lack of resources for evaluation

While there is 'near universal endorsement' of the importance of evaluation among Australian Government officials (Gray and Bray 2019, p. 7), Australian health service staff, particularly those at non-government and small organisations, frequently report that a lack of resources is one of the main barriers to high-quality evaluations (Francis and Smith 2015; Jolley et al. 2007; NSW Regional Health Partners 2019; Schwarzman et al. 2018). There are two main reasons for this.

- While funding for some initiatives includes dedicated resources for evaluations, funding bodies may underestimate the resources needed to design and conduct evaluations in complicated policy areas, such as economic evaluations or evaluations of programs targeting vulnerable populations (Lobo, Petrich and Burns 2014; Schwarzman et al. 2019). Initiatives that aim to create closer partnerships between service providers and funders aim to address these misaligned expectations.
- In other cases, tight budgets mean that there is no specific funding for evaluation. The environment for preventive health funding is 'highly competitive, with implied pressure to pack in a great deal of intervention, often to the detriment of the evaluation' (Lobo, Petrich and Burns 2014, p. 3).

The extent of the under-provision of resources for evaluation is difficult to quantify. In the context of programs for Aboriginal and Torres Strait Islander people, the Commission previously noted that 'some agencies indicated that while they aim for between five to ten per cent of each program budget for evaluation, the reality is that the proportion of

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program funding made available for evaluation is often significantly lower’ (PC 2020a, pp. 92–3). On the other hand, initiatives that involve larger investments are more likely to be evaluated — so the proportion of health *dollars* that are evaluated is likely larger than the proportion of health *initiatives* (Government of Western Australia 2015).

Over the long term, this underinvestment can threaten the future prospects of preventive healthcare programs. Ongoing program funding or the renewal of grants is often contingent on showing evidence of success. This can lead to a vicious cycle: program managers need good evaluations to demonstrate the value of programs and secure funding, but without funding to commission or conduct high-quality evaluations, they cannot produce this evidence (Francis and Smith 2015).

There is no single optimal level of funding allocated to evaluation. The budget for an evaluation should be proportionate to its value or usefulness, which depends on the intervention and its context (Barr et al. 2016). Relevant factors include the extent of existing knowledge about an initiative; the level of investment in an initiative; its degree of complexity; the time period over which the effects are expected to occur; and the availability of existing data (Government of Western Australia 2015; Gray and Bray 2019; Lagarde, Kassirer and Doner Lotenberg 2012).

In all cases, however, evaluations — and the funding required to conduct them — need to be incorporated into the planning and implementation of interventions.

## **Evaluations do not always lead to better decisions**

Even when evaluations are completed, the use of this evidence base to inform decision making is inconsistent at best (Audit Office of New South Wales 2016; Baghbanian, Hughes and Khavarpour 2011; Liu et al. 2018). There are several reasons for this.

Research may not be readily accessible or useful for decision makers (Merlo et al. 2015). Reports may be excessively technical, and difficult for decision makers to comprehend without the help of experts (Liu et al. 2018; Makkar et al. 2018; Merlo et al. 2015).

Moreover, evaluations in preventive health use a wide range of measures of success, which may not be relevant to decision makers. In evaluations of care coordination services alone (chapter 4), we came across a dizzying array of outcome measures — patient acuity scores, number of emergency department presentations, length of hospital stay, patient-reported quality of life, patient-reported experience measures, patient-reported outcome measures and financial cost savings from the perspective of various parties (local hospital networks, State Government Departments of Health, the health system as a whole and society generally).

Evaluators may lack clarity about what metrics are valued by decision makers, or lack data to measure these outcomes (NSW Regional Health Partners 2019; Schwarzman et al. 2019). In other cases, different decision makers value different kinds of outcomes, or value them in different ways (box 1.3). Health department officials may find the health-related measures

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used in evaluations compelling, but these may be less persuasive to a Treasurer or Finance Minister who must make funding decisions across health and other sectors.

### **Box 1.3      What is the value of an empty bed — and to whom?**

Reductions in hospital bed days (either due to avoided hospitalisations or reductions in the average length of hospital stay) are a commonly reported benefit of innovations in care for chronic conditions. But different decision makers can value these bed days differently, depending on their perspective and the incentives they face.

Evaluations commonly value bed days saved using standard accounting methods, which capture the total cost to the hospital to run the beds (including fixed and sunk costs, such as the cost of hospital construction). But one study found that hospital Chief Executive Officers (CEOs) from across Australia valued bed days four to seven times less than these standard accounting methods (Page, Barnett and Graves 2017). This discrepancy may partly explain why some initiatives that appear to be cost-effective may not be funded: CEOs appear to base decisions on other considerations besides the estimated accounting savings in bed days.

Interviews with the CEOs suggested that their lower valuations were partly attributable to the incentives they faced. Activity-based funding, the primary funding mechanism for hospitals, dampened incentives for avoided hospitalisations, and single avoided bed days did not lead to substantial cost savings. Significant savings were only realised if hospital wards were closed down, allowing staff to be shifted and other variable costs saved — which typically could only happen if at least four bed days were saved. In other words, CEOs tended to value bed days at their marginal cost (that is, the short-term cost of the bed, ignoring longer-term costs such as construction costs that cannot quickly be changed).

Another study of hospital decision makers reported other nuances in the way bed days are valued. For example, initiatives that reduce people's average length of hospital stay may perversely increase total hospital costs, as the average cost of a hospital bed day is greater at the beginning of an admission than at the end. And the reallocation of savings across sites, departments or other internal units can be contentious — so it may be difficult for a preventive initiative in one unit to draw resources from another unit that also benefits from the initiative (Harris et al. 2017). Together, these features mean that key decision makers may not value the savings from an initiative in the same way that they are reported in an evaluation.

Due to the complicated structure of health funding arrangements, decision makers may not have incentives to value all the benefits of preventive health initiatives. For example, benefits accruing outside the department primarily responsible for funding an initiative may be disregarded. Social and community service officials may not consider the benefits to the health system when assessing the merits of social service interventions (and may not have authority to seek funding for programs delivered in hospitals) — even though the available evidence suggests that such programs have the potential to lower health costs.

There have been efforts to develop consistent, comparable approaches to measuring the effectiveness of programs, such as cost–benefit analyses and quality-adjusted life years

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(QALYs), but these can be difficult to apply, and estimates are often contested.<sup>8</sup> This variety can make it difficult for decision makers to assess the relative merits of initiatives, or make use of evidence syntheses. Systematic reviews ‘frequently conclude that the available evidence about the effects of population health interventions is too diverse, flawed or inconclusive to support a more general conclusion’ (Ogilvie et al. 2020, p. 1) — cold comfort to a decision maker who nonetheless needs to make a decision.

## 1.4 The contribution and approach of this report

Despite the constraints of the health system, there are many examples of successful innovations in care for people with chronic conditions across Australia.

The purpose of this report is to draw on some of these examples to identify enablers of improved health service delivery within the current architecture of the health system, and point to opportunities for system-level reform. By examining a portfolio of initiatives, we can find similarities in the ways that different initiatives have maximised opportunities and overcome pitfalls. Case studies can also provide lessons for practical improvements that health services and governments can make without waiting for broader reforms.

We sought to identify recent successful and innovative initiatives across Australia by conducting a desktop search and consulting with over 60 stakeholders (appendix A). In undertaking our search for initiatives, we focused on those aimed at preventing or managing physical chronic conditions. The search strategy focused on: the degree of innovation or novelty of an initiative; the effectiveness of an initiative in preventing or managing chronic disease; and the potential for scalability. These considerations are broadly consistent with other preventive health implementation frameworks, such as The Australian Prevention Partnership Centre’s Intervention Scalability Assessment Tool (TAPPC 2019b).

Our definition of innovation was broad, and included policies, systems, products, technologies and services that develop new ways to improve health outcomes (WHO 2020). As such, we looked beyond technological advances to other sources of innovation, including (but not limited to) developing funding arrangements to enable new forms of collaboration and redesigning workflows to support the delivery of integrated person-centred care.

We looked for initiatives that demonstrated success in improving outcomes, particularly for people with complex needs. To this end, we attempted to find initiatives that had been evaluated and had shown improvements in people’s health outcomes (such as patient-reported outcome and experience measures) or reductions in emergency department presentations and hospital admissions. Further, we sought initiatives that have demonstrated

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<sup>8</sup> QALYs are used commonly to estimate the economic value of quality of life. To estimate QALYs, values are assigned to different health statuses — from ‘full health’ (valued at 1) to death (valued at 0) — which are then multiplied by the time a consumer spends in each state (CEE 2017). The number of QALYs that are gained from different health interventions can then be compared.

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their sustainability by surviving beyond a trial phase — being scaled up, rolled out to other areas, or adopted by other organisations.

We undertook extensive stakeholder consultation to learn more about the initiatives we identified and seek out additional examples. A broad range of stakeholders contributed to this project, including health department officials from each jurisdiction, PHNs, local hospital networks (LHNs),<sup>9</sup> Aboriginal Community Controlled Health Services, consumer and advocacy groups, health researchers, program evaluators, community service providers, private health services, general practitioners and other clinicians (appendix A).

Reflecting the challenges to effective evaluations discussed above, the quality and breadth of the evidence on the innovative initiatives varied. Some showed consistently positive results, such as the Royal Perth Hospital Homeless Team (case study 9) and the One Stop Liver Shop (case study 3). Others demonstrated that new models of care or data use could be accommodated under the umbrella of the current system, such as Lumos (case study 14) and the Institute for Urban Indigenous Health (case study 15). Some initiatives had evidence of good outcomes for some groups, but the length of the program was too short or its target group too small to be sure that an expansion would necessarily yield similar outcomes (such as Choices, which supports consumers with complex health and social needs (case study 7)).

## **Our case studies point to five broad enablers of success ...**

The initiatives included in this report highlight the diversity of healthcare innovations, from general practices using data to better identify and manage consumers' chronic conditions; to Aboriginal Community Controlled Health Services providing holistic care to their community; to large, coordinated efforts involving PHNs and LHNs. These initiatives can be found across metropolitan, regional and remote areas, and in every jurisdiction. Despite this diversity, these initiatives shared similar features that enabled their success.

- Many initiatives aimed to empower people by supporting them in a proactive, timely and accessible way to self-manage their chronic conditions.
- Many initiatives made the best possible use of different types of professionals by enabling workers to maximise the scope of their practice or by creating new roles.
- Successful initiatives made collaboration an essential part of the way they work, through multidisciplinary meetings, co-location, joint funding contributions from all partners, data sharing and formal governance arrangements.
- Some initiatives found innovative ways to maximise their use of data while complying with privacy legislation. Their efforts relied on building trust and maintaining good relationships with data custodians and consumers.

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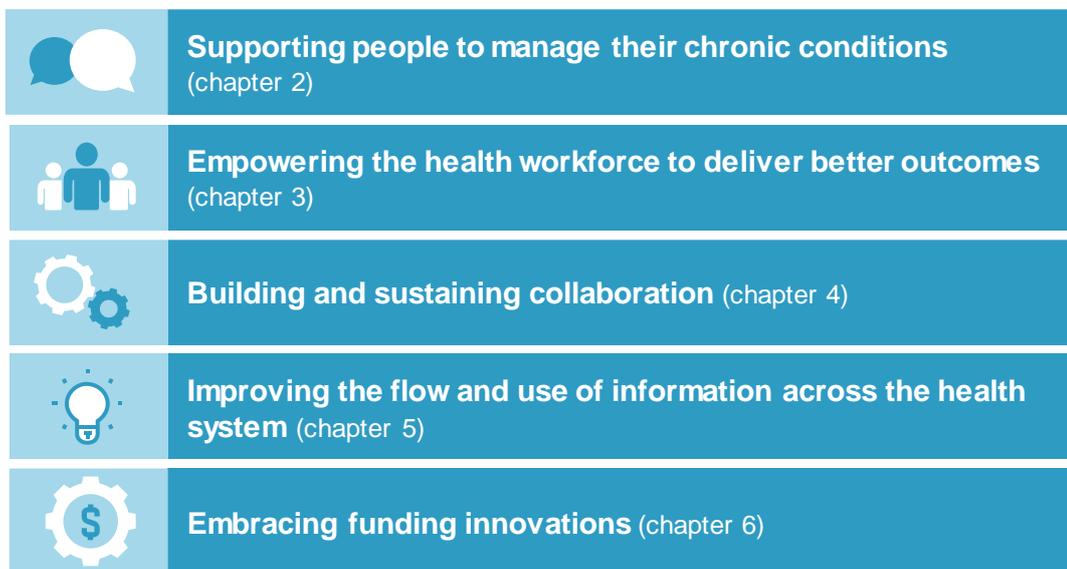
<sup>9</sup> This report uses local hospital network (LHN) to refer collectively to organisations that manage public hospitals. These include local hospital networks, local health districts, hospital and health services, local health networks, health service providers and Tasmanian health organisations.

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- Some initiatives used funding systems to facilitate preventive or collaborative care. While some initiatives relied on flexibility within existing funding models, others used alternative approaches, such as pooled funding.

The remainder of this report explores these enablers of innovation and the case studies that demonstrate how they can be implemented in practice (figure 1.3).

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Figure 1.3 **This report is structured around common themes in innovative interventions**



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### **... and also to strategies that build the evidence base**

Despite the conceptual and practical challenges in building an evidence base for prevention, in the course of this project we saw some high-quality evaluations that measured the effect of initiatives on people's health and social outcomes, and changes in healthcare usage and costs. These evaluations used different techniques to estimate the effect of interventions, including observational approaches, randomised controlled trials and other quantitative analysis techniques.

The evaluations of case studies included in this report suggest that there are practical steps that can be taken to make useful, relevant evaluations more common and foster an evaluation culture among service providers, policy makers and funders. In turn, such a culture would help to build and share the evidence base for prevention.

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## Investing in data and evaluation to improve health services

There are several promising efforts to improve data collection, sharing and linkage across the health sector (chapter 5). These efforts will help to make the data needed to build the evidence base for prevention more accessible — for example, by enabling interventions in primary care to be linked to changes in the use of hospital services, or tracking people’s health outcomes and use of services across providers. In one case, data linked through the Lumos program (case study 14) was used to track improvements in blood sugar levels of people enrolled in a diabetes management program over time (Lumos, pers. comm., 16 December 2020). But it is also likely that investment in specialised data collection will be necessary to evaluate some interventions — which will require additional funding, and funding agreements that allow sufficient time for collecting and using high-quality data.

Access to data is not sufficient to guarantee a high-quality evaluation; program managers and decision makers also need the skills to monitor outcomes and understand the role of data in improving health services. A variety of strategies can be employed to build this capacity, including providing access to technical experts, evaluation toolkits and training programs for staff and executives (Francis and Smith 2015; Makkar et al. 2018). For example, NSW Health’s Centre for Epidemiology and Evidence developed the evaluation skills of population health officers through staff training, the development of practice guides and providing access to technical support officers (Edwards et al. 2016). Similarly, NSW Regional Health Partners combined training and communities of practice in the Embedded Economists program to build the skills of program managers in health economics (chapter 4).

## Closer partnerships between researchers, health service providers and funders

Partnerships between funders (typically officials from the Departments of Health, Finance and Treasury), health service providers and researchers can make evaluations more meaningful. These partnerships address some of the issues described above, such as the inconsistent measures of success used for prevention initiatives (Francis and Smith 2015; Liket, Rey-Garcia and Maas 2014; Lobo, Petrich and Burns 2014; Schwarzman et al. 2019). They can help service providers understand and plan for an evaluation (including collecting data on relevant measures) that will make a compelling case for the value of an intervention, and commission and contribute to high-quality evaluations — a task which requires a degree of expertise and a detailed understanding of programs and their local contexts (Huckel Schneider, Milat and Moore 2016). And funders can gain a greater understanding of the value of evaluation and the measures of success that are relevant for preventive health initiatives, which may inform the design of funding arrangements for prevention.

Closer partnerships can be particularly useful when service providers and funders have different disciplinary backgrounds. Many preventive health programs involve collaboration with non-health partners, such as community services or housing agencies (chapter 4). Different sectors may have different evaluation norms, making clear communication of expectations particularly valuable. This can help to address the issues with the measurement of the cross-sectoral benefits of prevention, which is a significant gap in the prevention evidence base.

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These partnerships can take many forms, including communities of practice, research translation centres and evaluation networks that bring together practitioners, researchers and policy makers for structured collaboration. For example, The Australian Prevention Partnership Centre is a collaboration of researchers, practitioners and policy makers who co-produce research on chronic illness risks to inform policy and program development (TAPPC 2021c, 2021b). Another example is a research–practice partnership between the University of Newcastle and Hunter New England Population Health, which helps to make evaluation a routine part of service delivery and builds the capacity of both researchers and practitioners (Wolfenden et al. 2017). And the Sexual Health and Blood-borne Virus Applied Research and Evaluation Network (SiREN) in Western Australia brings together service providers, researchers and policy makers (box 1.4).

#### **Box 1.4 SiREN — a network that builds evaluation capacity**

SiREN, the Sexual Health and Blood-borne Virus Applied Research and Evaluation Network, was established in 2012, with funding from the Western Australian Department of Health. The network was created to address gaps in the research and evaluation capacity of sexual health and blood-borne virus (SHBBV) service providers, policy makers and researchers. In particular, the goals of the network are to:

1. promote and facilitate opportunities for collaboration between SHBBV service providers, policymakers and researchers;
2. foster links with national SHBBV research centres and contribute to appropriate national research agendas in order to raise the profile of SHBBV concerns affecting WA; and
3. strengthen the skills, competencies and networks of WA SHBBV providers to ensure best practice in research, evaluation and health promotion. (Lobo, Petrich and Burns 2014, p. 470)

SiREN employs dedicated research and management staff, who work towards these goals through a range of capacity-building activities, including:

- developing online toolkits for program planning and ethics approval
- holding research events and training workshops
- facilitating volunteer and student placements, and interdisciplinary interest groups
- providing specialist research and evaluation support, tailored to the needs of those requesting assistance.

After two years, stakeholders reported that SiREN had served as an ‘effective bridge’ between different sectors, stimulated interest and confidence in engaging in research, and helped organisations consider evaluation during the early stages of program planning (Lobo, Petrich and Burns 2014, p. 473).

### **Evaluation methodologies that are fit-for-purpose**

Not every preventive health program has the need or capacity to use complex evaluation methodologies. For small-scale local interventions, monitoring the effects on participants and healthcare staff offers important insights into what works and why. Larger programs may supplement observational analysis with complex statistical models.

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Drawing on partial or short-term evidence, or evidence from other jurisdictions, statistical models can be used to estimate the long-term health and economic effects of preventive initiatives, which can then be compared with program costs. These estimates — for example, predicted changes in the prevalence of chronic illness, hospital demand and waiting times — may be more salient to funders, because they can be directly linked to health system cost savings (Liu et al. 2018).

There have been efforts to develop sophisticated models that predict the long-term effects of prevention initiatives. For example, The Australian Prevention Partnership Centre has developed a dynamic simulation model that can estimate the short- and long-term effects of interventions targeting lifestyle-related risk factors for chronic disease (such as tobacco, harmful alcohol consumption and physical inactivity) (TAPPC 2021a). The model estimates effects on chronic disease occurrence, disability adjusted life years (DALYs),<sup>10</sup> healthcare costs and lost productivity. A proof-of-concept application of the model demonstrated it could be used to estimate the effect of several different interventions — including a volumetric alcohol tax, weight loss surgery and a social marketing campaign — on DALYs over 40 years. A reduction in the growth of DALYs was only observed after 10 years — well beyond the typical scope of an evaluation (McDonnell et al. 2019).

Modellers should describe their techniques and results clearly — with the assumption that this is obvious belied by actual practices. This includes stating key assumptions, showing effect sizes (and not just statistical significance), conducting sensitivity analysis to test the robustness of the results to changes in the assumptions, and discussing the limitations of the modelling exercise and data used. Without this transparency, policy makers and funders may perceive the model to be a ‘black box’, may not trust the results and may be hesitant to base investment decisions on evaluations that use modelling (Merlo et al. 2015). And modelling should not replace other efforts to build the evidence base such as the long-term tracking of outcomes, which is a critical part of understanding the value of preventive health care (Porter 2010).

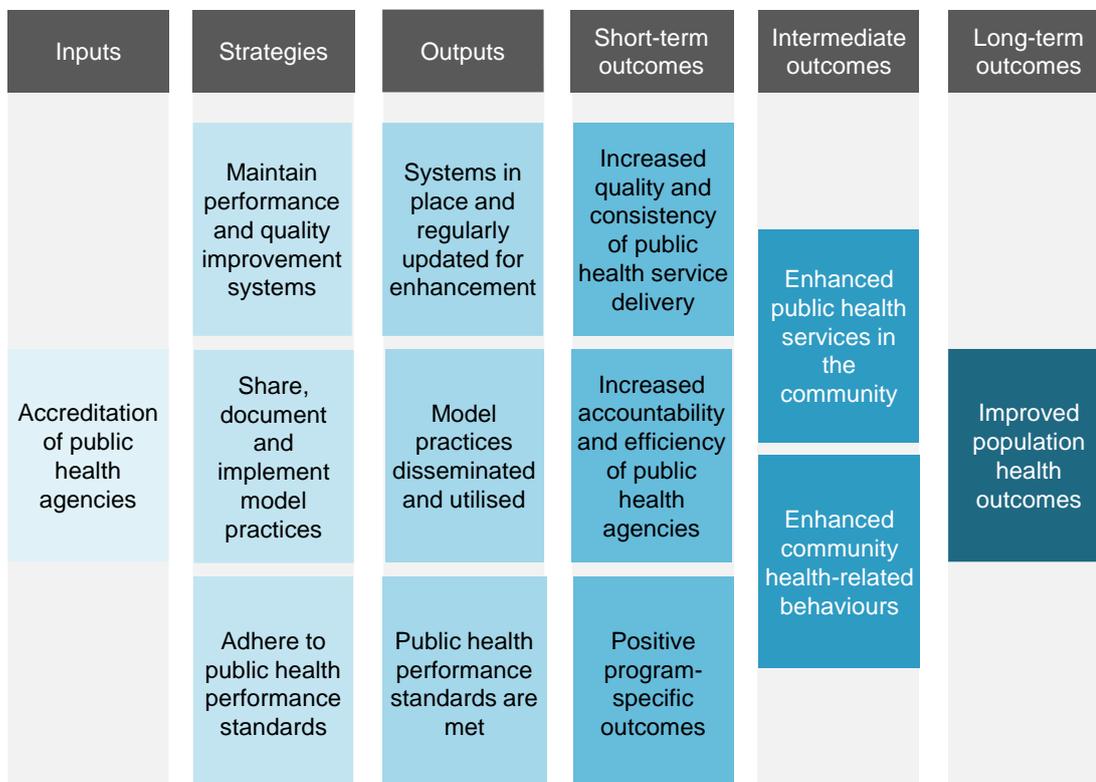
In cases where sophisticated modelling exercises are too time-consuming or expensive to conduct, a sound argument for the long-run effects can provide some guide to the benefits of a program. A clear, evidence-based program logic that links proximate outcomes with ultimate impacts can also be used to make a case for the value of prevention (Allmark et al. 2013; Baxter et al. 2010). A logic model can bridge the gap between an intervention and long-term outcomes of interest by highlighting intermediate effects, which can potentially be measured (figure 1.4) and provide the basis for further evaluation and research. This, for instance, is relevant to the impact of health programs that deliver services for children with the aspiration of achieving benefits into adulthood.

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<sup>10</sup> DALYs are a measure of the burden of disease. They are calculated as years of healthy life lost due to illness (years lived with disability) and/or death (years of life lost, compared to the theoretical maximum life span) (AIHW 2020c).

**Figure 1.4 Logic models link proximate outcomes with ultimate impacts**

A logic model linking public health agency accreditation with long-term outcomes<sup>a</sup>



<sup>a</sup> Public health accreditation is formal recognition given to public health agencies that meet certain performance standards, determined by a central body.

Source: Adapted from Joly et al. (2007).

## Diffusing innovation across the health system

Building the evidence base for innovation is only one part of progressing towards an integrated person-centred health system. ‘Research does not leap from the pages of journals into daily behaviour’ (Woolf et al. 2015, p. 464); nor does it independently spread from one jurisdiction to another. Ineffective diffusion not only wastes resources and good ideas, it can do harm. For instance, the tardy take up of beta blockers resulted in tens of thousands of avoidable deaths in the United States (Phillips et al. 2000).

Individuals often spur diffusion by identifying a need for change and adopting innovative approaches. We saw examples of this in the course of this project. But system-level factors also influence the speed of diffusion including healthcare standards and protocols, financial gains from innovation, IT systems, communication channels, the availability of research and data on new innovations and the presence of organisations that summarise evidence on best practice (GDHI Working Group 2013).

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While there are opportunities for information exchange in the Australian health system, diffusion occurs through decentralised and sometimes inefficient channels (McCalman et al. 2012). For example, the Australian Atlas of Healthcare Variation documented considerable variation in the use of some medications, interventions and procedures, reflecting the different rates at which new practices spread through the health system (ACSQHC and AIHW 2017, 2018; ACSQHC and NHPA 2015). In our consultations, we heard that the take up of non-clinical innovations also varies across the country. Health services in one part of Australia often try to find new solutions to problems that have already been overcome elsewhere.

Other countries have institutions and programs that serve to diffuse clinical and non-clinical innovations, such as the US Agency for Healthcare Research and Quality's Evidence-based Practice Center Program and the UK National Health Service Innovation Accelerator (AHRQ 2021; Marjanovic et al. 2020). Australia could consider a similar approach, which would entail the exchange of detailed information about innovations (such as their benefits, implementation challenges and resources required) between professional bodies, PHNs, LHNs, governments and other parts of the health system. The MBS Review Taskforce recommended the establishment of a dedicated institute for this purpose; there are also several institutions, such as the Australian Commission on Safety and Quality in Health Care, which could take on a similar role (MBS Review Taskforce 2020). Regardless of the body chosen, its main tasks would be to act as a central repository of information and facilitate greater learning from innovation.

This central body could complement more decentralised, but still structured, arrangements.

- Nurturing existing networks can act as a low-cost incremental approach, and builds on established relationships. Some networks already operate — such as regular meetings among PHN CEOs — but these address many issues apart from innovation. Periodic meetings focusing on innovations alone, drawing on the evidence from the national body discussed above, may be an important vehicle for diffusion.
- Professional bodies, such as the Royal Australian College of General Practitioners and the Australian Nursing and Midwifery Federation, can play a role in encouraging the adoption of the health system innovations, as can consumer organisations like the Consumers Health Forum of Australia. Consumers and health professionals can be powerful advocates for systemic change.
- Dedicated research translation centres, or collaborations between university research centres and health services, may further promote diffusion.

This report is in its own right a vehicle for diffusion of innovations. In some cases, they may be adopted without much local adaptation. In other instances they will provide lessons on the factors that contribute to effective interventions (such as the vital importance of even the most routine elements of collaboration), while in others they reduce the costs of further development of an innovation by offering insights into ways to effectively introduce and sustain better practices.

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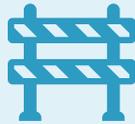
## 2 Supporting people to manage their chronic conditions

<b>Key problem</b>	People are sometimes treated as passive participants in the management of their own chronic conditions, despite the pivotal role they can play and the benefits that can arise from engaging people and supporting them to manage their health.
<b>Examples of initiatives that address the problem</b>	<b>Nellie</b> — friendly text messages with reminders about daily actions to support people to manage their chronic conditions. 
	<b>Turning Pain into Gain</b> — a suite of services to help people living with chronic pain. 
	<b>One Stop Liver Shop</b> — specialist care and information for people with chronic hepatitis B in a remote community, in their language. 
	<b>Monash Watch</b> — regular telephone calls to vulnerable people, accompanied by outreach when they need additional help. 
<b>Key findings</b>	<ul style="list-style-type: none"><li>• Supporting people with chronic conditions to be more active in their health management can be a low-cost way to keep people healthier and prevent hospitalisations. However, support is not always available for those who need it.</li><li>• For many people with chronic conditions, better health can start through very small steps to help them take a more active role in their health management. For more vulnerable people, greater investment is likely to be required, but large improvements in health outcomes can be achieved.</li><li>• Successful initiatives bring health care and support to people in a proactive, timely and accessible way, instead of leaving them to manage — or fail to manage — on their own.</li></ul>

People’s involvement in their own healthcare can take a range of forms, including choosing a health care provider, participating in research, or evaluating services through feedback. But foremost among the ways in which people are involved in their own care is making choices and decisions every day about how to manage their lives and their health. This is particularly important for people with chronic conditions, for whom the need to consider how to best manage their condition is ever present.

People with chronic conditions can face several barriers to managing their health, which are not consistently addressed by health services (section 2.1). Innovative interventions have sought to support people with chronic conditions to manage their health themselves. These interventions range from action plans, reminders and group programs (section 2.2) to more intensive outreach (section 2.3). They all contribute towards empowering people, and creating a health system that works in partnership with them (section 2.4).

**Figure 2.1 Supporting people to manage their chronic conditions**

<p><b>Self-management is essential but it is not always supported</b> (section 2.1)</p>	<ul style="list-style-type: none"> <li>• Many clinicians have little training or experience in supporting self-management</li> <li>• Limited financial incentives to offer support for consumer self-management</li> <li>• Wide variation in consumers’ capacity to self manage</li> </ul>	
<p><b>Simple tools can make a big difference</b> (section 2.2)</p>	<ul style="list-style-type: none"> <li>• Simple plans and reminders help people to manage their conditions</li> <li>• Self-management support programs have proven benefits</li> </ul>	
<p><b>Supporting people on their terms</b> (section 2.3)</p>	<ul style="list-style-type: none"> <li>• Successful innovations bring health care and support to people in a proactive, timely and accessible way</li> <li>• For more vulnerable people, greater investment is likely to be required, but large improvements in health outcomes can be achieved</li> </ul>	
<p><b>Working towards partnerships with consumers</b> (section 2.4)</p>	<ul style="list-style-type: none"> <li>• Partnerships between consumers and health care providers are essential for effectively managing chronic conditions</li> </ul>	

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## **2.1 Self-management of chronic conditions is essential, but it can be hard to achieve**

### **The importance of self-management**

When people are involved in managing their chronic conditions, this has a positive impact on their health. Informed self-management leads to better health, enhanced quality of life, fewer and shorter hospital admissions and lower costs (Morioka et al. 2013). Empowering people and teaching them self-management skills is more effective in improving health outcomes than simply providing information or advice (Battersby et al. 2010).

Self-management skills include problem solving, decision making, finding and using resources, forming partnerships with health care providers and taking action (Lorig and Holman 2003). In a practical sense, this often means people monitoring their symptoms, taking medications as prescribed, following lifestyle advice to the best of their ability and knowing where and when to seek professional assistance if their health starts to deteriorate.

Self-management is important even for people who access health services often. People who are very frequent attenders see a GP 28 times per year on average (NHPA 2015). But even these people are still managing their health condition on their own most of the time. And while there are 24/7 helplines staffed by nurses who can provide immediate health advice (such as 13 HEALTH, Nurse-On-Call and HealthDirect), these services are not intended to provide ongoing assistance to people with chronic conditions.

Innovations that support self-management enhance people's ability to make daily decisions about their health.

Supported self-management means giving people with long-term conditions the support they need to increase the control they have over their own lives and to minimise the constraints imposed on them by their state of health or disability. It requires seeing patients not as passive recipients of care but as active partners. (Foot et al. 2014, p. 25)

In effect, self-management enables people to take an active role in their care, working together with healthcare providers.

### **People face a range of barriers to self-management**

For many people with chronic conditions, managing their health on their own does not pose a problem. But the levels of support required differ substantially between individuals, and managing chronic conditions is not straightforward for everyone.

People with high levels of [involvement] and health literacy may only require an initial conversation, signposting them to relevant information or guided support. For those with low levels of [involvement], tailored coaching approaches have proved most effective at supporting behaviour change. In addition, it is important for those with low levels of health literacy to be

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provided with information in different formats and the support necessary for them to understand and use that information. (Foot et al. 2014, p. 17)

Health literacy has two components, which influence the way people access, understand, appraise and apply information.

- Individual health literacy is the skills, knowledge, motivation and capacity of a person to access, understand, appraise and apply information to make effective decisions about health and health care and take appropriate action.
- Health literacy environment is the infrastructure, policies, processes, materials, people and relationships that make up the health system and have an impact on the way that people access, understand, appraise and apply health-related information and services (ACSQHC 2014a).

Individual health literacy is dynamic: being tired, in a bad mood, in an unfamiliar place, unwell or stressed affect a person's capacity to understand, use, apply and act on information. Consequently, a person's individual health literacy can vary from day to day (ACSQHC 2014a). Low health literacy does not necessarily imply a deficit of knowledge or understanding at the individual level (ABS 2019) — it simply reflects how well that individual can manage their health, given their current health status and environment.

Most Australians consider themselves to be good managers of their health. About 84% of people who report being in fair or poor health, and 97% of those who report being in excellent health, consider that they are able to actively manage their health (ABS 2019).

But people's measured health literacy capability can differ from their self-assessed skills. The most recent available measures of health literacy capability suggest that almost 60% of adult Australians had low health literacy. This rate was higher, at nearly 75%, for Australians aged 55 years or more (ABS 2008), who have the highest likelihood of chronic disease (chapter 1). Moreover, high measures of health literacy based on people's beliefs about their capacity to access and use health information do not necessarily equate to evidence-based knowledge. For instance, vaccine hesitancy has been shown to be positively associated with some measures of health literacy (Rozbroj, Lyons and Lucke 2019).

A further critical aspect of health literacy is the way in which health professionals communicate with people, which is part of the health literacy environment (ACSQHC 2014a). Studies have shown that better communication leads to improved patient outcomes, safer work environments, fewer adverse events, shortened lengths of stay and lower re-admission rates in hospitals (Merlino 2017). There is evidence that the benefits of effective communication can be similar to those of many medications (Howick et al. 2018). While most Australians say that health practitioners always listen carefully to them, depending on the practitioner type, between 14% and 30% say otherwise (ABS 2020a). People with a long-term health condition more commonly report problems of communication with health practitioners (ABS 2020a). These shortcomings go beyond the deficiencies in clinicians' communication abilities to systemic factors such the time and

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financial pressures faced by clinicians, their training and cultural norms, and the information available to them — issues examined further below.

Health literacy is only one factor that may affect how people manage their health conditions. For example, time pressures may make it difficult for people to exercise or to remember to take medications, and financial pressures can limit access to therapies. About 40% of older people with chronic conditions discontinue their medication without consulting their doctor (Laba et al. 2018), because they believe their health has improved or they cannot afford a repeat prescription, among other reasons. This pattern is observed across other developed countries, where about 50% of people with chronic conditions find it difficult to adhere to long-term treatment plans (WHO 2003).

### **Health services aim to support self-management, but results are mixed**

As noted above, self-management enables people to play a more active role in their health care, working together with providers. Partnerships between users and healthcare providers are particularly important for the effective management of chronic conditions, given that people with chronic conditions are frequent users of health care services (Holman and Lorig 2000, p. 526).

National health policy has recognised this for some time. For example, the National Safety and Quality Health Service (NSQHS) Standards specify the desirable role of consumers and carers as partners in the planning for their treatment.<sup>11</sup> In addition, several jurisdictions have developed frameworks for supporting self-management.

However, these standards and frameworks include broad-brush measures, such as professional development for practitioners or generic information resources, and do not adequately address the needs of the people who require additional proactive assistance (O’Connell, Mc Carthy and Savage 2018). Implementation of the standards is not uniform. According to the Australian Commission on Safety and Quality in Health Care, ‘health services consistently described [partnering with consumers] as the most challenging of the NSQHS Standards to implement, and there was considerable variation in its implementation’ (ACSQHC 2018b, p. 7).

As a result, there is still relatively little support for self-management, even for people with multiple chronic conditions. A key obstacle is the limited financial incentives for healthcare providers to offer support for self-management. The fee-for-service model that is the dominant form of payment for primary care does not reward successful efforts to build

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<sup>11</sup> The NSQHS Standards were adopted in 2012. All hospitals, day procedure services and public dental practices are required to be accredited to the NSQHS Standards. Many other healthcare facilities also choose to be accredited (ACSQHC 2014b). While primary healthcare providers are not required to participate in accreditation, the National Safety and Quality Primary Healthcare Standards are currently under development, and will include a similar standard for partnering with consumers (ACSQHC 2020).

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people’s self-management skills, manage chronic conditions, or stop them from entering hospital. The recent MBS Review Taskforce found that:

... MBS rebates tend to have a value relative to the time and complexity of the service provided rather than its impact on health outcomes. This can lead to interventions being favoured over watchful wait or prevention due to the impact on provider revenue. (MBS Review Taskforce 2020, p. 36)

And while over 40 special Medicare Benefits Schedule (MBS) payments oriented at preventive health and management of specific chronic conditions are available, they are inflexible, complicated and relatively narrow in their focus (PC 2017d, p. 52).

Clinicians often face time pressures that limit their ability to educate and work with consumers. Many clinicians have little training or experience in supporting self-management. Indeed, ‘supporting patient self-management represents a paradigm shift for many clinicians’ (Greene et al. 2016, p. 152).

... services reported that some staff were still hesitant about engaging with consumers because they did not understand the need, were reticent about consumers reviewing their practice, or did not feel they had the time or skills needed to best engage consumers. (ACSQHC 2018b, p. 21)

Empowering consumers has the potential to change the existing clinician–consumer relationship, ‘hence the reluctance of some clinicians to embrace this new thinking ... ’ (Chambers and Schmid 2018, p. 108). This cultural barrier means that the ideal of a partnership has only partly been diffused among health professionals and organisations. There can also be disagreement about the role of different actors, both inside and outside the health system. Consequently, many people with chronic conditions, especially those with complex or multiple conditions, can encounter difficulties in managing their health, and the services to support them are in short supply.

The initiatives highlighted in this chapter aim to fill this gap in the health system. What makes them innovative is that they:

- focus on understanding the needs of consumers, meeting people where they are — sometimes literally, by bringing preventive care to very remote locations — and supporting them to reach the next step in managing their chronic condition
- embed support for self-management into the system of care, so that consumer focus becomes a defining feature of all aspects of the service.

These interventions range in their scale from relatively simple tools, which are likely to meet the needs of a large cohort of people with chronic conditions (section 2.2), to highly intensive, tailored interventions (section 2.3).

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## **2.2 Simple tools and support can make a big difference**

### **Plans and reminders help people manage their conditions**

An action plan details the activities and behaviours necessary for self-management and the types of assistance a person may need. It can help people make well-informed and guided decisions about their own health care. This is particularly the case for conditions such as asthma, congestive cardiac failure, chest pain and anaphylaxis. For example, Healthy North Coast (the primary health network (PHN) for northern New South Wales) has a set of sick day action plans for common conditions (Healthy North Coast 2018). But action plans to support the management of chronic conditions are only likely to have a positive effect on quality of life and health care utilisation if they are developed as part of a multifaceted program, where action plans for one condition take into account other conditions and address the issue of responsibility across professions (Morris et al. 2016).

Technology can play an important role in helping people to remember their action plans and to work towards health goals. For example, Nellie is program used by the South Eastern Melbourne PHN that sends people SMS reminders about what to do to manage their condition (case study 1).

Nellie is an example of effective global diffusion of new approaches to health care, as it is based on a similar system developed in the United Kingdom (UK) that is also used by the Department of Veterans Affairs in the United States (USDVA 2021).

Case study 1	Nellie
<p><b>What is Nellie?</b></p> 	<p>Nellie is an automated SMS-based persona for promoting self-care for people with chronic conditions. When people opt-in to the Nellie system, they receive friendly text messages from Nellie with reminders about things that are important for managing their condition, and reply to Nellie with information about their health.</p>
<p><b>How was Nellie developed and implemented?</b></p>	<p>Nellie is based on a similar system developed in the United Kingdom, known there as Florence, and adopted widely across the UK's National Health Service (SEMPHN 2020). In 2016, the South Eastern Melbourne Primary Health Network (SEMPHN) partnered with Simple Telehealth (the developers of Florence) to adapt and rename Florence for Australian users. Nellie is now being used in about 50 general practices across south eastern Melbourne (Simple Telehealth 2020b).</p> <p>Once SEMPHN decided to use Nellie, it told general practices about the system and visited interested practices to demonstrate it.</p> <p>Most of these teams were excited about the prospect of using Nellie and immediately thought about specific patients and cohorts who they thought Nellie's friendly messages and interactions could help. Many of them also identified how they thought that Nellie could make their work lives easier ... this provided crucial motivation for them to embed Nellie in their workflow. (Simple Telehealth 2020b)</p> <p>SEMPHN worked with clinicians to design consumer pathways and the shared action plans that determine the structure of Nellie's messages. It also involved clinicians in developing the implementation strategy for Nellie, including by trialling different consumer recruitment methods and different approaches to managing telemonitoring data.</p> <p>General practices that chose to use Nellie could use it in whatever way suited them. For example, some practices saw value in using Nellie for remote monitoring (such as using a blood pressure monitoring protocol), while others used Nellie to help people establish healthier habits (such as increased physical activity) (Simple Telehealth 2020b).</p> <p>Another advantage of the Nellie system is that it allows for 'closed loop' monitoring with weekly, or more frequent, review by the patient's own general practitioner or practice nurse, who can log-in to the secure server and access their results. This access to real-time data about individuals is a key component of many successful chronic care initiatives (chapter 5).</p>

<p><b>What has Nellie achieved?</b></p>	<p>Nellie has helped consumers across south eastern Melbourne to better manage a wide range of health conditions (including asthma, hypertension and diabetes) and to make positive lifestyle change (such as weight loss and regular exercise) (Simple Telehealth 2020a).</p> <p>Evidence from the UK suggests the kinds of benefits that are likely to occur in Australia. In the UK, 94% of people who use Florence consider that it helps them to manage their own health better (Cund et al. 2015). This high rate of satisfaction is echoed in clinical results. For example, people with hypertension who used Florence had a significantly greater reduction in blood pressure than matched controls (Cottrell, Chambers and O’Connell 2012).</p>
<p><b>What makes Nellie successful?</b></p>	<p>Nellie uses a technology that is easily accessible and familiar to most people, and supports consumers to reach a health-related goal that is important to them, chosen in conjunction with their clinician.</p> <p>As well as being easy for consumers to use, Nellie minimises the demands it places on clinicians. Evidence from the UK suggests that Florence does not increase clinicians’ workloads and about two thirds of GPs found Florence easy to use (Hammersley et al. 2020). Among those who did not find Florence easy to use, many concerns related to internet access, rather than to the system itself (Cottrell et al. 2015). In addition, SEMPHN:</p> <ul style="list-style-type: none"> <li>• worked with clinicians in general practices to identify how they thought they would like to use Nellie and collaboratively designed pathways and messaging protocols</li> <li>• started with a small number of interested general practices, and then expanded to other practices once Nellie had demonstrated results (Simple Telehealth 2020b).</li> </ul>
<p><b>Where to next for Nellie?</b></p>	<p>SEMPHN is beginning to use Patient Reported Outcomes Measures (PROMs) to track consumer status measures over time, and will continue to refine Nellie based on this feedback (Simple Telehealth 2020b).</p> <p>Nellie has also provided a flexible platform for SEMPHN to offer support for mental health and wellbeing during the COVID-19 pandemic. Consumers could text ‘support’ to Nellie and receive practical tips and regular reminders about activities to improve their wellbeing (SEMPHN 2020).</p> <p>Nellie has the potential to be implemented on a much larger scale. For example in the Lothian region of Scotland, about 60% of general practices use Florence, with some offering it to hundreds of people with hypertension and seeing results comparable to those obtained in smaller pilot studies (Hammersley et al. 2020).</p>

Sources: Cottrell, Chambers and O’Connell (2012); Cottrell et al. (2015); Cund et al. (2015); Hammersley et al. (2020); SEMPHN (2020, pers. comm., 1 February 2021); Simple Telehealth (2020b, 2020a).

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## Self-management support programs have proven benefits

While the encouragement and reminders provided by systems such as Nellie are suitable for many people with chronic conditions, others would benefit from more intensive support. Often, this takes the form of self-management programs, which include phone- or group-based coaching sessions, intended to equip people with information on how to manage their condition. They are delivered by health professionals, such as nurses, sometimes in conjunction with peer workers or volunteers.

Many such programs are well established, such as the COACH program for people with cardiovascular disease (box 2.1). Other models that have been commonly used and adapted for the needs of different groups include the DESMOND program for people with diabetes (Miller et al. 2020) and the Stanford model of self-management education (Lorig and Holman 2003). There are also successful initiatives, such as Queensland's My Health for Life program, that intervene earlier and are offered to people who are at risk of, but do not yet have, a chronic disease (Queensland Government 2020).

### Box 2.1 The COACH Program

Developed in Melbourne in 1995, the COACH Program (Coaching patients On Achieving Cardiovascular Health) is a standardised structured coaching program. It was originally designed to reduce future cardiovascular disease risk in people already diagnosed with cardiovascular disease or at high risk of an event.

The COACH Program runs for approximately six months with telephone-based coaching sessions every four to six weeks. At the end of each session a letter detailing the topics discussed is sent to the patient and the doctor(s). Patients receive a written information pack at the start of the programme. Coaches are all health professionals including nurses, dieticians, pharmacists, physiotherapists and occupational therapists. Patients need four or five coaching sessions to make progress and a full time coach can take on somewhere between 200 to 250 patients a year. (SPH 2018, pp. 25–26)

The COACH Program has demonstrated its effectiveness in improving coronary risk factors and consumers' quality of life, and in reducing in mortality and hospital costs (Byrnes et al. 2018; Vale et al. 2003). It is also being used by people with other chronic conditions, including diabetes, asthma and chronic obstructive pulmonary disease (COACH Program 2021), and has proven effective in remote communities and among Aboriginal and Torres Strait Islander people (Ski et al. 2015).

Overall, access to self-management support and education is patchy. Even when supports exist, each State and Territory government, local hospital network, PHN and community health service offers different programs. It is not clear how much of this diversity reflects the needs of different populations and desirable experimentation, and how much reflects the lack of a systemic approach.

Most chronic disease management programs focus on common conditions, meaning that people who have rarer or multiple conditions may not be able to find a program that meets their needs. Many programs also appear to cater for only a small share of the people who would benefit from additional support, which would justify assessment of the feasibility of scaling them up. For example, the My Health for Life program aimed to support

10 000 people to complete the program (Queensland Department of Health 2020), a small fraction of the 3.1 million Queenslanders who do not meet recommended levels of physical activity and the 2.4 million who are overweight or obese (ABS 2018).

There also seems to be scope to widen the availability of programs aimed at pain management, which are effective but not widely available despite the many conditions that can precipitate pain. This is a particularly important gap given that:

- almost 1 in 5 Australians aged 45 years and over (1.6 million people) had chronic pain in 2016
- access to pain services is limited (with insufficient data available to measure the treatment of pain in Australia)
- pain is often neglected and is not always recognised as a disease state in itself
- pain has multiple, serious effects, including depression, inability to work, disrupted social relationships and suicidal thoughts (AIHW 2020e; Goldberg and McGee 2011).

One innovative pain management program is Turning Pain into Gain, which offers a suite of services to help people to better manage their chronic pain (case study 2). Like the successful Monash Watch program (case study 4), Turning Pain into Gain does not focus on any particular disease or pain trigger, but rather on individual participants and their needs, which makes it better able to support people in a flexible way.

Case study 2	Turning Pain into Gain
<p><b>What is Turning Pain into Gain?</b></p> 	<p>Turning Pain into Gain is a holistic 12-month program for people with persistent pain, operated by the Gold Coast Primary Health Network (GCPHN). It combines one-on-one clinical service assessments, a six-session education program, allied health services and goal setting. It supports participants to explore a range of strategies for living well despite pain, to lower their reliance on medication for pain management, reduce requirements for emergency care and attain better quality of life.</p>
<p><b>How was Turning Pain into Gain developed and implemented?</b></p>	<p>Turning Pain into Gain was developed in 2013 by a local pharmacist. Participants were initially recruited from the waiting list of the Gold Coast Hospital specialist pain clinic. People who were unlikely to be seen by the clinic were offered the Turning Pain into Gain program instead. Participants are now referred to the program by local general practices, as well as the rheumatology, persistent pain, emergency and neurosurgery departments at the Gold Coast Hospital.</p>

<b>(continued)</b>	<p>Demand for the program grew quickly, and by 2015 over 250 people had participated. This led, at times, to difficulties matching the supply of places with demand — at one stage, no new referrals were permitted and confidence in the program from GPs temporarily dropped (De Morgan, Walker and Blyth 2019).</p> <p>GCPHN uses its flexible funding (chapter 6) to cover the clinical service assessments, education program and program running costs. In most cases, funding for allied health services comes from the Australian Government through the Medicare chronic disease management items, but GCPHN may cover additional allied health services for people who have exhausted their Medicare allocation.</p>
<b>What has Turning Pain into Gain achieved?</b>	<p>More than 600 people with persistent pain have participated in Turning Pain into Gain since 2013 (GCPHN 2019). The program was evaluated by Griffith University in 2016-17, and was shown to have led to significant improvements in many domains. Participants improved their ability to undertake various day-to-day activities, including exercise, household chores, and leisure activities; and reported a 78% reduction in hospitalisations. In addition, medication use was more aligned with clinical pain medication guidelines, which reduced potential negative medicine interactions and side effects (Joypaul, Kelly and King 2019).</p>
<b>What makes Turning Pain into Gain successful?</b>	<p>Key factors that have contributed to the success of the Turning Pain into Gain program include:</p> <ul style="list-style-type: none"> <li>• adopting a collaborative approach involving program staff, GCPHN and the Gold Coast Hospital from the outset. This allowed good relationships between them to be developed and maintained</li> <li>• commitment from GCPHN to continued funding of the program to support the development of relationships with GPs, which built trust and led to an increase in referrals from GPs</li> <li>• more effective provision of allied health services, because those services are coordinated by someone with good knowledge of pain management and delivered by professionals specialised in persistent pain</li> <li>• past program participants ('graduates') supporting and mentoring people who are currently taking part in the program.</li> </ul>
<b>Where to next for Turning Pain into Gain?</b>	<p>Following its success in the Gold Coast, the Turning Pain into Gain program is now being implemented by the Adelaide PHN (Pain Australia 2020) and by the WA Primary Health Alliance at four sites in Western Australia (De Morgan, Walker and Blyth 2019).</p>

Sources: De Morgan, Walker and Blyth (2019); GCPHN (pers. comm., 24 January 2021); Pain Australia (2020).

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## 2.3 Supporting people on their terms

The location, timing and delivery of health care is often designed to meet providers' needs rather than centring services on the needs and preferences of consumers.

Health care is still too supplier-centric and its payment structures and information provision are only slowly moving away from this model. When the UK television program, *Yes Minister*, characterised an efficient hospital as one without patients, it was clearly a satirical caricature. However, it still has some resonance because while patients are *in* the health system, few would argue that they are near its centre yet. (PC 2017d, p. 63)

People with complex conditions have to deal with an equally complex and fragmented health system, which can result in information gaps, reduced quality of care and access to services, and wasteful duplication of clinical interventions (PC 2015).

Patients routinely rely on their memory of a verbal interaction with a healthcare provider. They are expected to make decisions, 'comply' with treatment and understand the course of their illness or treatment in the absence of access to a written record. Sometimes opportunities to seek clarification (written or verbal) are limited, especially if access is limited by waiting lists, distance or patient immobility. This reduces patients' ability to partner in health care. (ACSQHC 2008, p. 8)

The reminders, plans and chronic disease management programs outlined in section 2.2 can help, but are most effective for people who already participate in their own care to some extent. Increasing involvement in their own care is more challenging for people who face significant barriers to managing their health — due to their living circumstances, the costs involved, language barriers, frailty and sometimes all these factors combined. They can require much more intensive support and are more at risk of poor health outcomes (AIHW 2020b).

The Commission found a range of initiatives that meet the needs of people with chronic conditions, including those who face the biggest challenges. Common attributes of these initiatives are that they are accessible, timely or proactive — or in many cases, all three.

### **Successful innovations make care for chronic conditions physically and culturally accessible**

While the health system is broadly accessible for most Australians, there remain sizeable groups of users for whom health services are out of reach. This can be due to issues of affordability, convenience, effective communication or cultural safety.

The various dimensions of accessibility may manifest themselves differently depending on the relevant health conditions. Disease and disability can transform even relatively short distances and waiting times into access challenges. A recent study of the experiences of people with chronic conditions in Sydney found that they faced multiple barriers to accessing care from GPs.

The most significant and recurring challenges to access reported by patients were predominantly focused around their ability to reach or physically access services ... Patients reported

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illness-related disabilities, including limitations in physical mobility, chronic fatigue and pain that prevented from accessing primary care. In severe cases, these difficulties forced patients to forego or reschedule appointments ... The limited availability of after-hours services was a frequently cited challenge for patients especially when making unscheduled or urgent visits. (Song et al. 2019, p. 11)

Access is a major concern for people, and inadequate access is associated with poorer health outcomes. We found that health services that implemented successful initiatives for groups of people facing accessibility barriers took the time to understand the needs of their potential users and the best approaches for dismantling those barriers. For example, the eye and ear surgical pathway established by the Institute for Urban Indigenous Health (IUIH) (chapter 3) includes support on the day of surgery and post-surgery to assist clients with hospital paperwork, transport and social support, and to resolve any issues that arise (IUIH 2019). In the absence of such supports, many IUIH patients would be unable to access eye and ear surgery.

Successful initiatives also tailored their efforts to the cultural and language preferences of the people they were aiming to reach. For example, Western Sydney Diabetes — a collaborative program run by Western Sydney PHN in conjunction with public and private partners — organised a place-based initiative to enlist trusted local businesses and organisations to spread health messages. In Toongabbie, where there is a large Indian and Sri Lankan population, Western Sydney Diabetes worked with local South Asian community leaders to raise awareness of diabetes and promote healthy choices and diabetes testing (WSD 2019).

Programs that have had particular success for specific groups for whom generic engagement strategies are ineffective combine physical and cultural accessibility, bringing health services and information to people where they live, in their own language. The One Stop Liver Shop is one such initiative (case study 3). Its outcomes align with other research that has shown that putting structured and culturally appropriate systems of care in place for Aboriginal and Torres Strait Islander people can help to improve their longer-term health status (for example, Harvey et al. (2013), Zhao et al. (2014)).

Case study 3	One Stop Liver Shop
<p><b>What is the One Stop Liver Shop?</b></p> 	<p>The One Stop Liver Shop is a mobile care delivery model for people with chronic hepatitis B (CHB) in a remote community in the Northern Territory. It provides all the care needed by people with CHB, where they live, in their language.</p>
<p><b>How was the One Stop Liver Shop developed and implemented?</b></p>	<p>The One Stop Liver Shop was developed in conjunction with the people of Galiwin'ku, a community 500kms from Darwin where there are high rates of CHB. People with CHB require regular follow up, antiviral treatment and screenings — services that are typically only available at a tertiary hospital.</p> <p>Coordinated by local Aboriginal health practitioners, the One Stop Liver Shop model brings the clinicians (specialist doctor, sonographer, clinical nurse specialist) and equipment (ultrasound and transient elastography scanners to measure liver density) to the community for two days every three months. The model combines these visiting services with mobile devices for education using 'the Hep B Story app' — a purpose-made mobile application designed to provide CHB education in both English and Yolŋu Matha. Two community-based educators, as well as the coordinating Aboriginal health practitioners, use the app to deliver education in a culturally safe and respectful way. Because internet connectivity can be poor in Galiwin'ku, the app was designed so that once downloaded, it no longer requires an external connection to access.</p>
<p><b>What has the One Stop Liver Shop achieved?</b></p>	<p>The One Stop Liver Shop model is effective in removing the barriers residents of remote communities face when seeking to access specialist clinicians and monitoring facilities.</p> <p>Rates of engagement are high, with 88% of those aware of their CHB diagnosis engaged in care and 16% receiving antiviral treatment (Hla et al. 2020). This is above the territory and national averages and compares favourably to the targets set in the Third National Hepatitis B Strategy 2018–2022. These targets state that 50% of people living with CHB should be engaged in care and 20% should receive antiviral treatment by the end of 2022 (DoH 2018b).</p>
<p><b>What makes the One Stop Liver Shop successful?</b></p>	<p>Key factors that have contributed to the success of the model include:</p> <ul style="list-style-type: none"> <li>• the participatory approach used to develop it, with local workers facilitating extensive community engagement</li> <li>• the substantial contribution made by the local Aboriginal health practitioners and community-based educators (chapter 3)</li> <li>• offering people essential information in their first language, delivered in terms they could understand and that respected their cultural needs. One researcher described seeing 'people's eyes light up as they go through the app for the first time and discover it speaks to them in their own language' (Menzies School of Health Research 2020).</li> </ul>

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### Where to next for the One Stop Liver Shop?

The Menzies School of Health Research is working with the NT Department of Health, Miwatj Health Aboriginal Corporation, Katherine West Health Board, Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine and the NT AIDS and Hepatitis Council to expand the One Stop Liver Shop model.

In 2018, the team received funding from the National Health and Medical Research Council to translate the Hep B Story app into an additional 10 Aboriginal languages. This will mean that 70% of Aboriginal people in the Northern Territory will have access to information about CHB in their first language (Menzies School of Health Research 2020).

The One Stop Liver Shop model is an intensive intervention, tailored to the unique health and cultural needs of a particular remote community. Other successful initiatives also combine a tailored suite of intensive services to meet the needs of their users. For example, the Homeless Healthcare service in Perth runs mobile clinics in multiple locations with nurse-led outreach and hospital in-reach service, among other components (chapter 4). While these are examples of intensive interventions, they have lessons for others about making care accessible for people living with entrenched disadvantage. Without these programs, it is highly likely that people would not have received effective care — or potentially would not have accessed care at all.

The broader health system can also learn from these initiatives about the importance of integrated person-centred care, and the ways to overcome language and access barriers, which are also present in many urban areas for different populations.

## Successful innovations provide timely care

Timely access to primary care contributes to improved health outcomes and lower costs. It also increases people's satisfaction and quality of care. However, waiting times in health care remain a concern. In 2019-20, 19% of people who saw a GP waited longer than they felt was acceptable to get an appointment (SCRGSP 2021).

Waiting times for specialist care depend on clinic resources and the urgency of the condition, with less urgent conditions often having long waiting lists.

Patients with urgent conditions may be able to make an appointment immediately. Other patients ... may face very long waiting times (up to several years). For example, of patients attending a public 'general surgery' clinic in the first quarter of 2017 in Queensland, 10% of patients with the *most* urgent conditions had waited longer than 35 days, while 10% of patients with the *least* urgent conditions had waited longer than 438 days. (PC 2017c, p. 299)

Waiting times at individual public outpatient clinics are rarely published, although efforts to make this information more widely available are underway (including through the Smart Referrals system in Queensland — case study 13). But currently, most people have no way of knowing how long they might have to wait for a specialist appointment or treatment (PC 2017c).

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Many successful initiatives took waiting times into account and worked to reduce them. Some — such as Turning Pain into Gain (case study 2) — did this by offering alternative services to people who were already on waiting lists. This not only benefitted program participants, but also those who did not participate and moved up the waiting list as a result. Other initiatives factored in people’s waiting time into the design of their services. For example, the Darling Downs Diabetes Model of Care (chapter 3) reduced waiting times by:

- upskilling GPs in all aspects of diabetes-related care, so that many people no longer had to wait for specialist appointments or travel into Toowoomba from remote locations — they could be cared for by a local GP instead
- assigning each participant to an individual diabetes nurse, and using that nurse as the link to coordinate services from a multidisciplinary care team, so that participants who needed other medical or allied health services could receive those services at the same time as their diabetes clinic sessions.

It also made care more convenient to people by offering clinic appointments before and after business hours when the need arose (Darling Downs Health, pers. comm., 11 January 2021).

Sometimes making care more timely is not about what happens in clinics or hospitals, but rather about bringing care to people who live far from those facilities. One way to do this through visiting care programs, such as the One Stop Liver Shop (case study 3). Another way is to give people in rural and remote areas technical aids to help them monitor their own health and communicate with healthcare providers. For example, virtual home telemonitoring has been successfully used in South Australia (box 2.2).

### **Box 2.2 Virtual Clinical Care in country South Australia**

Country Health South Australia operates a Virtual Clinical Care (VCC) Home Telemonitoring Service. The aim of the VCC service is to support people with chronic conditions to better manage those conditions and reduce unplanned presentations to hospital (SA Health 2019).

The VCC service is offered to people with chronic obstructive pulmonary disease, cardiac failure, diabetes, hypertension or a combination of those conditions. VCC clients are provided with equipment to monitor their symptoms at home. Each day clients take their measures and complete a condition-specific health interview.

This information is monitored by a chronic care nurse and can be sent to the patient’s specialist or local GP. The patient receives training so they can better understand and self-manage their condition, with guidance from their chronic care nurse. (ACSQHC 2018a, p. 3)

In 2018-19, the VCC service had 113 clients, who had an average age of 70 years and used the service for an average of 6 months. Results are positive, with 206 hospital admissions and 98 emergency department presentations avoided in 2018-19. Over 85% of clients reported they were ‘very satisfied’ with the service. This rate of satisfaction is particularly notable as many of the clients (who were mostly older people) struggled to learn how to use the equipment (ACSQHC 2018a, p. 3).

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## Successful innovations are proactive

Concerns about insufficient preventive care for people with chronic conditions are well documented (chapter 1). The Commission found that successful innovations proactively provided care and support to people. This aligns with international research on new and effective models of general practice, which has found that:

A feature of many of the models we studied was a shift towards proactive and planned care as opposed to reactive and transactional care ... Models that focus on more reactive, transactional approaches may be less able to provide ... timely, comprehensive care, and are likely to require repeated clinic attendances to complete preventive measures such as immunisations or follow-up. (Baird et al. 2018, p. 66)

One of the ways in which successful innovations achieve proactive care is to bring together multidisciplinary teams. For example, GPs spoke positively about working in closer collaboration with pharmacists in the planning and delivery of scheduled medication reviews (chapter 3). And prior to the introduction of the Darling Downs Diabetes Model of Care (chapter 3), many people with diabetes in the region were passive players in their care — who waited for the specialist to call them or set up their appointment, even if their condition deteriorated. The new model of care overcame this passivity with better care planning, where clinicians spent time educating people about ways to manage their own care.

Providing proactive care also means supporting transitions in care at the appropriate time. One example is the Transition Support Service at the Royal Children’s Hospital in Melbourne (box 2.3).

### Box 2.3 Royal Children’s Hospital Transition Support Service

The Royal Children’s Hospital (RCH) in Melbourne has a Transition Support Service that is responsible for managing the transition of complex and vulnerable paediatric patients to adult care. The transition process starts at 15 years of age and takes place over several years, and helps young people and parents to obtain the knowledge and skills they need as they move to adult health services.

The service involves healthcare transition plans, transfer passports for patients and carers, education resources on a range of adolescent topics, and an annual graduation ceremony for patients and families leaving the care of the RCH.

Since its establishment in 2010, the Transition Support Service has supported over 2000 young people and families per year.

*Sources:* ACSQHC (2019a); RCH (2020).

Better access to data and information can also enable consumers and clinicians to be more proactive. For example, in primary care clinics managed by the NT Department of Health, access to detailed data about the care that each person has received makes it easier to track the management of their chronic conditions, remedy any gaps in treatment, and prevent

hospital admissions that could result from poor management of their illness in the community (case study 12).

Other programs reach out to people to recognise and respond to signs of deterioration before it becomes too severe. For example, Monash Watch brings together different aspects of proactive care, including the use of data to identify people most likely to benefit from support, and team-based care that seeks to support them in the community through outreach (case study 4).

Case study 4	Monash Watch
<p><b>What is Monash Watch?</b></p> 	<p>Monash Watch is a telephone outreach service designed to reduce avoidable hospital admissions among people who are at risk of multiple admissions in a 12-month period.</p>
<p><b>How was Monash Watch developed and implemented?</b></p>	<p>Monash Watch was developed by Monash Health as part of its participation in HealthLinks (a Victorian Department of Health initiative that uses a capitation funding model to reduce preventable hospitalisations — chapter 6).</p> <p>People at risk of repeated hospitalisations are identified by Monash Health using the HealthLinks algorithm. People cannot be referred to Monash Watch — instead, a recent hospital admission will trigger an offer of the Monash Watch service.</p> <p>People who agree to participate in Monash Watch receive phone calls from a Care Guide and support from a Health Coach.</p> <ul style="list-style-type: none"> <li>• Care Guides are non-clinical staff who call the consumer (and/or their carer) at least weekly, to conduct a health check comprising a simple set of questions about health concerns and self-perceived health. The conversations are coded into a decision support system that generates alerts if the consumer’s health is declining.</li> <li>• Health Coaches are nursing or allied health professionals (including physiotherapists and occupational therapists) who triage calls and supervise, visit participants at home, provide coaching and broker appropriate services where necessary. This could be anything from arranging medication from a pharmacy to just being there if the participant is feeling overwhelmed.</li> </ul> <p>Participants continue to use the ambulance service or their GP if needed for urgent and emergency events.</p>
<p><b>What has Monash Watch achieved?</b></p>	<p>Interim results show that Monash Watch is achieving a 20–25% reduction in hospital acute emergency bed days compared to usual care, well in excess of the 10% reduction it set out to achieve.</p>

<b>(continued)</b>	Participants are satisfied with the Monash Watch program, with 94% reporting that they would recommend the service to others (Martin et al. 2019).
<b>What makes Monash Watch successful?</b>	<p>Key factors that have contributed to the success of Monash Watch include:</p> <ul style="list-style-type: none"> <li>• developing the model in consultation with its intended participants using a co-design approach. This enabled the team to better understand the service and support needs of HealthLinks participants</li> <li>• developing a team comprised of non-clinical Care Guides and clinical Health Coaches. This lowers the overall cost of the service, with Health Coaches able to support about 90 participants at any one time</li> <li>• ensuring that the same Care Guide and the same Health Coach work with participants wherever possible, to foster friendly, open and trusting relationships</li> <li>• employing experienced nurses, physiotherapists and occupational therapists as Health Coaches, so they have the skills and confidence to address the complex issues faced by participants</li> <li>• making a small discretionary budget available to Health Coaches so that they can quickly make ‘micro investments’ in items that they consider to be necessary for participants’ wellbeing. These small upfront investments can lead to substantial savings over the following weeks or months. For example, spending \$160 to purchase a four-wheel frame for a participant who is unsteady on their feet can reduce the likelihood of falls and prevent falls-related hospital visits that would be many times more expensive than the walker</li> <li>• offering the Monash Watch service to people who live within a small geographic area, so that Health Coaches spend less time travelling and more time with participants. Expanding the service to people in other areas has meant basing teams in different locations</li> <li>• understanding that self-reported health, in combination with regular service-initiated telephone calls, is sufficiently reliable to have predictive power, and using an established system developed overseas to harness this information in a cost-effective manner.</li> </ul>
<b>Where to next for Monash Watch?</b>	<p>Monash Watch has expanded from its original team and location in Dandenong, with a second team now operating in Cranbourne. The participants in Cranbourne are, on average, younger and less disadvantaged than those in Dandenong, so the Cranbourne team is able to support a larger number of participants.</p> <p>The Monash Watch team is being incorporated into a new directorate in Monash Health, so that it can become part of the organisation’s business as usual. The model’s philosophy and principles have now been expanded to other health services across Victoria.</p>

Source: Monash Health (pers. comm., 8 January 2021).

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## 2.4 Supporting self-management is one step towards strengthening consumer partnerships

Supporting people to manage their chronic conditions and bringing care to them in a proactive, timely and accessible way is essential, but it is only one component of the broader goal of partnering with consumers.

Effective partnerships with consumers are necessary for safe and high-quality care in a sustainable health system. Partnership is essential:

... not just because patients deserve to be partners in their own health care (which, of course, they do) but also because health care can be delivered more effectively and efficiently if patients are full partners in the process. (Holman and Lorig 2000, p. 526)

Different types of partnerships with consumers exist within the healthcare system, and each type complements the other. They include:

- consumers as partners in planning, design, delivery, measurement and evaluation of systems and services
- consumers as partners in their own care, to the extent that they choose (ACSQHC 2019b).

Self-management can be the first step towards more significant engagement in the health system — one that enables people to have a voice not only in their own care, but also to support others and contribute to the design of new services and policies. Some of the examples included in this chapter, such as Turning Pain into Gain (case study 2) and the Stanford model of self-management education, rely on peer workers or volunteers, who have completed the programs themselves, to deliver it to new participants.

In other cases, people become engaged in the design and evaluation of the services that support them. For example, the Homeless Healthcare team in Perth (chapter 4) established a patient reference group, comprising people experiencing homelessness who use their services. The people who participate in the group are empowered to share their views on the most effective ways to deliver health services to people who are homeless, and contribute to the planning of new services. Clinicians and other support staff take consumers' views on board and adjust their service delivery accordingly (Andrew Davies, pers. comm., 21 December 2020). In the Nepean Blue Mountains region, local health services have implemented a joint approach to consumer engagement across the acute and primary care sectors (box 2.4). Such examples show practical ways in which health services have managed to develop meaningful partnerships with consumers.

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## Box 2.4 Consumer engagement in the Nepean Blue Mountains region

In the Nepean Blue Mountains region of New South Wales, Wentworth Healthcare (the local PHN) and the Nepean Blue Mountains Local Health District (NBMLHD) have a joint consumer engagement strategy, and the boards of both organisations are advised by a joint Community Advisory Committee.

Development of the joint consumer engagement strategy began in 2012. At that point, both organisations (NBMLHD and the predecessor to Wentworth Healthcare, which was then the Nepean–Blue Mountains Medicare Local) had recently been established, and they identified consumer engagement as a good place to begin working together.

This collaboration had benefits for both organisations and for the people served by them.

Understanding by [staff from both organisations] of the need for, and the ability to, engage with consumers increased, with a larger and more diverse pool of consumers to draw on. At the LHD, there was increased consumer representation at several levels, and committees became more comfortable with having consumers around the table. Among consumers, health system literacy improved and the level of debate and engagement became more sophisticated. (Blignault et al. 2017, p. 533)

Consumers brought perspectives to the health services that they would not otherwise have heard:

... it is often non-clinical matters which are vitally important to effective health care. The sorts of issues [consumers seek] to address included not only workforce supply but also transport and parking availability at health centres, access for disabled people, travel costs and centralised access to health information services. (Health Consumers NSW 2020)

Factors contributing to successful, collaborative consumer engagement are similar to those that facilitate collaboration more broadly (chapter 4). They include commitment at the executive and board level, a dedicated budget (with contributions from both organisations) and both organisations sharing common geographic boundaries.

While community input can sometimes be treated in a tokenistic manner, in this case consumers considered that it was being used to improve the health system. For example, the consumer committee:

... adopted Consumer Stories as a tool to highlight the need for changes in the health system. These are not individual complaints, which are progressed through other channels, but illustrative narratives often based on several people's experiences. Sharing these stories in committees as a contribution to quality improvement, and seeing positive change, was very satisfying for consumers. (Blignault et al. 2017, p. 533)

Despite changes in organisational leadership and structures since its establishment, the joint Community Advisory Committee continues to operate and met regularly during 2019-20 (Wentworth Healthcare 2020).

The Nepean Blue Mountains example echoes evidence from health services in Australia and internationally that have successfully embedded consumer partnerships within their organisations. Approaches that contribute to strong partnerships include:

- having a strategy for consumer partnerships, and communicating it clearly to consumers and staff
- strong executive leaders, who take visible steps to demonstrate the importance of partnerships, takes on board feedback and makes the necessary adjustments
- dedicated roles, so that there is a staff member who is clearly responsible for building effective partnerships

- 
- offering opportunities and training for all health care providers to engage with consumers
  - tailoring the opportunities for engagement to the preferences and abilities of consumers. (ACSQHC 2018b, p. 19)

But while these broad strategies are common to many successful partnership initiatives, it is important that they are implemented in ways that are suitable for the local population.

... there is no single 'right' way to engage health consumers. Instead, the solution for each organisation and community must be developed locally and collaboratively to suit local circumstances. (Blignault et al. 2017, p. 534)

Learning from success stories, and taking steps to design comprehensive support programs that respond to people's needs, is likely to support cultural change across the health system.

While such initiatives could partly be realised within existing funding and regulatory structures, like so many other innovations discussed in this report, their effectiveness is likely to be reinforced through broader health policy reforms.



### 3 Empowering the health workforce to deliver better outcomes

<p><b>Key problems</b></p>	<p>Entrenched workforce norms and practices, and administrative restrictions, curtail the ability of health professionals to use and develop their skills. They also limit the role played by trained administrative staff and peer workers. As a result, people are not offered the support they need or have to wait longer than necessary to access care.</p>	
<p><b>Examples of initiatives that address the problems</b></p>	<p><b>General practice-based pharmacists</b> — pharmacists working in general practice care teams to improve medication management.</p>	
	<p><b>General practitioners with special interest</b> — general practitioners with specialist expertise working in hospital outpatient clinics to treat people who would otherwise have to wait to be seen by specialists.</p>	
	<p><b>Choices</b> — peer workers who support people with complex health and social needs.</p>	
<p><b>Key findings</b></p>	<ul style="list-style-type: none"> <li>• Flexible approaches to the workforce that allow healthcare professionals to make the most of their skills are beneficial for consumers, practitioners and the health system. Implementing these approaches requires overcoming entrenched workforce norms and established practices.</li> <li>• New roles in health care — such as peer workers — can improve the delivery of care, especially for people with complex health and social needs.</li> <li>• Hiring, retaining and developing the skills of a local Aboriginal and Torres Strait Islander workforce is key to increasing the cultural competence of the health workforce and the cultural safety of the care they provide.</li> </ul>	

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Across all settings of care, healthcare providers' most important resource is their staff. But too often, health professionals are unable to make the most of their training, skills and interests. Instead, many health professionals spend considerable time carrying out routine tasks that could be better performed by others, such as peer workers or administrative staff. Some also work in professional silos without the contribution of other disciplines. Workplace innovations seek to make better use of the full scope of workers' skills, as well as encourage greater collaboration between disciplines.

Obstacles to health workforce innovation include funding constraints, long-standing workplace practices and cultures, and administrative restrictions.

Fee-for-service and activity-based funding mechanisms are some of the biggest barriers to innovation in chronic care, as they reward service providers for the number of people they see, and the volume of treatment they provide (chapter 6). And while Medicare rebates for the assessment, management and review of certain chronic diseases are available, nursing and allied health staff are mostly precluded from accessing them, even though they often have the skills to provide this care in conjunction with general practitioners (GPs) and specialists.

Entrenched customs and practices can also present an impediment to innovation. For example, GPs can be reluctant to work more closely, and to engage in shared decision making, with allied health professionals, while allied health professionals have 'resisted the incursion of GPs into areas where traditionally they had little authority or status' (McDonald, Jayasuriya and Harris 2012, p. 9). GPs can be pivotal in creating new ways of working, but have for a long time occupied the upper echelons of the health hierarchy and can be reluctant to take other professionals' views into consideration (Parker et al. 2013).

Another obstacle to workforce innovation is the substantial body of regulation that governs the tasks that health professionals can perform. These regulations serve to protect healthcare users — if health care is delivered by practitioners operating outside their competency, there could be significant scope for adverse health outcomes.

Registration standards and clinical protocols define what tasks can be performed by which workers. But these standards can limit innovation in job design and the extent to which tasks can be delegated to the most cost-effective worker who can safely perform the task. For example, despite being highly trained and having expertise in medicines, community pharmacists are only permitted to issue repeat prescriptions in very limited circumstances. Allowing pharmacists to provide repeat prescriptions to people in a larger range of circumstances, when the consumer and GP agree and when the health condition is stable, would save people considerable time and money over the longer term and free up GPs' time for more complex tasks (Duckett, Breadon and Ginnivan 2013). Moreover, people often wait for long periods of time, travel long distances or pay substantial fees to see a specialist, even though a clinician with a different skill set, such as a GP, could help them much faster and achieve comparable outcomes.

Poor skill matching can be frustrating for health professionals as their expertise is squandered if they spend time performing administrative and simple clinical tasks that could

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be done by others. Empowering clinicians to delegate more of these tasks and more fully use their skills could improve career pathways and job satisfaction, which, in turn, would aid workforce retention.

As labour costs comprise a large share of health expenditure, making better use of health workforce skills could also improve system efficiency by allowing more care to be provided within existing budgets.

The combined effect of funding constraints, workforce norms and administrative restrictions create negative consequences for consumers, health professionals and the health system. With some justification, the Grattan Institute pointed out that ‘current workforce roles were designed in the days of the horse and buggy’ and that ‘tradition, professional culture and industrial agreements often dictate that highly-trained health professionals spend their time doing straightforward work. This wastes money, makes professional jobs less rewarding and often does not improve care’ (Duckett and Breadon 2014, p. 1).

This chapter draws on successful innovations that offer practical examples of making the best possible use of the skills of workers across the health system (figure 3.1).

We found that innovative interventions sought to incorporate a wide range of professionals into care teams, enabling team members to use as many of their skills as possible (section 3.1). For people with more complex conditions, GPs with additional specialised skills working in conjunction with specialists enable more care to be provided (section 3.2). For people with complex conditions or those whose health needs interact with their social needs, support roles — including new roles such as peer workers — can be integrated into health services to improve care (section 3.3). For Aboriginal and Torres Strait Islander people — who are much more likely to have chronic conditions — strategies that increase the employment of Aboriginal and Torres Strait Islander people in the health workforce can improve the cultural safety, and thus the accessibility, of care (section 3.4).

While the examples in this chapter illustrate how some health services have overcome key workforce barriers, many of these innovations have been implemented on a small scale. Realising benefits at a larger scale will require system-wide resolution of the obstacles identified above.

Figure 3.1 Categories of workforce innovation

<p><b>Drawing on many professionals' skills in care teams</b> (section 3.1)</p>	<ul style="list-style-type: none"> <li>• Building multidisciplinary care teams with a wider range of skills and disciplines</li> <li>• Reorganising workflows so that health professionals use more of their skills</li> <li>• Making use of assistants and administrative staff to free up clinicians for complex tasks</li> </ul>	
<p><b>Supporting GPs to provide more complex care</b> (section 3.2)</p>	<ul style="list-style-type: none"> <li>• Integrating GPs with additional skills and expertise into hospital outpatient units</li> <li>• Enhancing community-based services so that GPs can treat more acute conditions in people's homes without a hospital admission</li> </ul>	
<p><b>Peer workers</b> (section 3.3)</p>	<ul style="list-style-type: none"> <li>• Employing peer workers to provide support for people with complex health and social needs</li> <li>• Building trust and making it easier for people to access and maintain contact with services</li> </ul>	
<p><b>Aboriginal and Torres Strait Islander workforce</b> (section 3.4)</p>	<ul style="list-style-type: none"> <li>• Delivering culturally safe care by developing the Aboriginal and Torres Strait Islander health workforce</li> </ul>	

### 3.1 Drawing on many professionals' skills in care teams

A GP is the first person many Australians turn to when they need health care. While GPs play a central role in treating illness and helping people to manage their chronic conditions, many other professionals are also involved. They include medical specialists (such as endocrinologists and cardiologists), nurses (such as practice nurses, community nurses and nurse practitioners), pharmacists, Aboriginal health workers and allied health professionals (such as physiotherapists, podiatrists, dietitians, diabetes educators and psychologists).

A team of healthcare professionals can deliver better care than practitioners working alone. Team-based, multidisciplinary care is associated with many improved outcomes for people with chronic conditions (Harris et al. 2011; National Heart Foundation of Australia 2010). For example, people with chronic kidney disease who receive multidisciplinary care have fewer hospitalisations and lower mortality rates (Shi et al. 2018).

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Teams need not be co-located, though co-location typically fosters collaboration and helps to break down barriers between professions (chapter 4). When professionals are co-located, their proximity to each other improves communication and facilitates knowledge exchange (Bonciani et al. 2018). In particular, co-location of practitioners improves access to services, equipment and dedicated programs that aid chronic disease management (Rumball-Smith et al. 2014).

People with chronic conditions are essential members of care teams, in setting goals and making decisions about their care, and in managing some aspects of their health themselves. These types of consumer involvement have also been seen in other sectors of the economy, where consumers now have the capacity (often through technology) to perform a task previously done by a paid employee, making services more accessible. For instance, automatic teller machines allowed consumers to be their own bank tellers and made cash more quickly and widely available. In the health arena, the most obvious trend has been the gradual development of self-administered diagnostic tests. Pregnancy testing was originally undertaken in pathology labs until the development of home testing in the 1970s (Gnoth and Johnson 2014), and home-based HIV testing was approved for use in Australia in 2014 (TGA 2018). Similar trends have been apparent in improved self-management of chronic conditions, with home-based blood glucose testing (Hirsch 2018) and blood pressure monitoring (Sharman et al. 2016) now frequently used by people to manage diabetes and hypertension. When people are more active in their care, it improves their health and their ability to cope with chronic conditions (chapter 2).

## **Building multidisciplinary care teams with a wider range of skills**

The ‘patient-centred medical home’ model of care provides a promising avenue for delivering team-based care. Becoming a patient-centred medical home involves:

... adopting a team-based approach to a more patient centred model of care, where metrics are established and monitored to improve care quality, where care is coordinated including beyond the practice, and there is enhanced access to services and improved communication with patients. There is a focus on building a multidisciplinary team that includes allied health professionals as well as a shift to being more nurse-driven. In this model patients are also encouraged to be involved in their own healthcare. (Metusela et al. 2020, p. 2)

A patient-centred medical home can be based around a general practice, Aboriginal medical service or remote comprehensive primary healthcare service. Care provided by a medical home has five key elements — it is comprehensive, consumer-centred, coordinated, accessible and focused on quality and safety (RACGP 2016).

Many of the successful innovations described in this report draw on the principles of patient-centred medical homes and have introduced significant flexibility into their workflows to provide integrated care. Some general practices across Australia, including more than 20 in Western Sydney alone, have been engaged in efforts to transform into patient-centred medical homes (Metusela et al. 2020). One example is Mount Druitt Medical

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Centre, which has expanded its operations in alignment with the medical home model (box 3.1).

### **Box 3.1      Creating a patient-centred medical home in Western Sydney**

In 2013, Mount Druitt Medical Centre was like many GP practices across Australia — it was staffed by GPs and receptionists, and did little to measure patient outcomes. Since then, it has undergone substantial change and now operates as a patient-centred medical home.

The first step in its transformation was to review and analyse data that the practice was already collecting, to obtain information on the practice population and its needs. This data showed that psychology, exercise physiology and dietetics were areas that required focus. Clinicians specialising in these areas were engaged to co-locate within the practice, and to work as an integrated team.

The care team has since expanded, and now includes a full-time staff of four doctors, one practice nurse, one medical assistant and two receptionists, as well as a pharmacist, dietitian, exercise physiologist and psychologist who each work at the clinic on a part-time basis.

This team of different health professionals works closely together and allocates responsibilities to make the best possible use of their individual skills.

The clinic also upskills its staff and uses all staff members as part of the care team by envisioning the potential roles staff members can play, rather than just those they do play. For example, the clinic dietitian has been trained to write up and review care plans for patients, which are then reviewed jointly by the dietitian, patient and general practitioner. (ACI 2016)

Similarly, the medical assistant orders tests, compiles test results, reviews patient notes from GP visits and conducts medication reconciliation before a follow up appointment. Two receptionists are available on all shifts to manage appointments, check and follow up on lab tests, administer consumer questionnaires and input the data from health records.

For people with multiple chronic conditions, the benefits of the new model are substantial — they can access comprehensive care that meets their needs. For example, if someone presents with poorly managed bipolar disorder, diabetes, chronic obstructive pulmonary disease and asthma, they can have those conditions treated by one team, in one place. Their mental health issues could be addressed first, while less intensive management of their other conditions takes place. Once the bipolar disorder is under control, they are in a better position to self-manage their physical conditions.

*Sources:* ACI (2016); Dr Kean-Seng Lim (pers. comm., 5 November 2020); Mount Druitt Medical Centre (2020).

Another example is the Health Care Homes trial, which is examining the effect of providing monthly payments to general practices to provide integrated care to people with chronic and complex health conditions (chapter 6).

The benefits of incorporating more professionals into primary care teams — and allowing them to perform all the tasks for which they are qualified — have been documented for a range of professions. For example, consultations with dietitians in primary care settings can be effective in improving people’s diet quality, diabetes outcomes and weight loss outcomes (Mitchell et al. 2017).

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Like many Aboriginal Community Controlled Health Services, the Institute for Urban Indigenous Health (IUIH) includes a wide range of professionals in its multidisciplinary care team. One of IUIH's recent innovations is a cataract surgical pathway, designed to allow people to undertake as many steps of care as possible in one culturally appropriate setting. IUIH employs optometrists, a team of cataract surgery coordinators and an eye health manager, who provide reminders, support and transport for people attending pre-operative clinics, surgery and post-operative clinics. Bringing these workers into the primary healthcare team has substantially increased the proportion of people able to access cataract surgery. In the seven months before the pathway was introduced, less than 17% of referred patients (nine people) completed cataract surgery. In the seven months following introduction of the pathway, 45% (46 people) had done so (Penrose et al. 2018).

Pharmacists can deliver a range of interventions with favourable results for chronic disease management and quality use of medicines. Integrating a pharmacist into a GP clinic enables greater collaboration and a more thorough utilisation of specialist skills in primary care. A general practice pharmacist can also improve communication between GPs and pharmacists working in community pharmacies and provide a link to existing community pharmacy services (WentWest, pers. comm., 9 February 2021).

Including pharmacists in primary care teams reduces the time GPs spend on prescribing activities. For example, one study conducted in Scotland found the inclusion of a GP-based pharmacist reduced the time GPs spent on key prescribing activities by 51%, which freed up 5 hours of GP time per week, per practice. Practices and practitioners identified improvements in consumer safety and capacity to manage their condition, positive effects on staff morale, and reductions in stress. There is also a sense of collegiality and support that comes with working in a multidisciplinary team. As a GP in New Zealand put it:

Sometimes it's good to have somebody else look at it, so working together with a pharmacist is a good idea. Because I think two pairs of eyes looking at the same page, often gets better results than one person looking at a patient. (Ailabouni et al. 2016, p. 15)

One successful example of integrating pharmacists into GP clinics is the General Practice Pharmacist program implemented by WentWest, the Western Sydney Primary Health Network (PHN) (case study 5).

Case study 5	WentWest's General Practice Pharmacist program
<p><b>What is the General Practice Pharmacist program?</b></p> 	<p>In the General Practice Pharmacist program, pharmacists work in general practice care teams to deliver clinical services and education. Pharmacists' responsibilities can include performing medication reviews, providing medication advice to consumers, conducting clinical audits and providing education to GPs and other practice staff.</p> <p>The program integrates the specific skills of a consultant pharmacist into the general practice primary care team to optimise medication management, enhance communication and encourage collaboration between healthcare professionals, ultimately leading to better health outcomes for patients.</p>
<p><b>How was the General Practice Pharmacist program developed and implemented?</b></p>	<p>WentWest designed its General Practice Pharmacist program in partnership with the University of Sydney and with support from the Western Sydney Local Health District. The program began with a pilot in 2016, with WentWest employing four pharmacists across 13 general practices. When working in the GP clinics, the pharmacists assisted people who needed medication management or who were at risk of an adverse medication incident, and provided advice to GPs on medication management. The program was developed as one way to address the high rate of potentially preventable hospital admissions. As medication underpins much of chronic disease management, more frequent and direct engagement of consultant pharmacists in patient care is designed to lead to better health outcomes and fewer medication-related preventable hospital admissions.</p> <p>A key part of the program was consumer–pharmacist consultations, which consisted of consumer education on medical conditions and medications, healthy lifestyle advice, ordering and reviewing laboratory tests, home-based monitoring and optimising medication use. Education sessions included counselling to help consumers use medicines safely and adhere to their medication regimens, as well as advice targeted specifically for the patient, in line with their management plan.</p>
<p><b>What has the General Practice Pharmacist program achieved?</b></p>	<p>The program's goals included reducing adverse drug events and inappropriate polypharmacy (when a person takes five or more medications daily when this is not medically necessary) and supporting care coordination and consumer education.</p> <p>Over a six-month period, pharmacists made 1601 recommendations for 618 patients, with 1404 (88%) accepted by GPs. The majority of pharmacist recommendations (73%) related to changes in medication — two of the three most common recommendations were for medication termination and dose reduction.</p> <p>Two other achievements of the program are the embedding of pharmacists into the general practice healthcare team and increased communication across the healthcare neighbourhood. The program has grown to include seven pharmacists in 24 practices, with several more about to come on board.</p>

<p><b>What makes the General Practice Pharmacist program successful?</b></p>	<p>Key factors that contributed to the success of the program include:</p> <ul style="list-style-type: none"> <li>• clearly defined roles and competencies that are understood by the GP, the pharmacist and the practice team</li> <li>• stable and regular contact between the GP, the practice team and the GP-based pharmacist</li> <li>• taking a whole-of-team approach to person-centred care, with practice support for the GP-based pharmacist and consideration of the pharmacist's knowledge and experience</li> <li>• the proactive nature of the role. The pharmacist is not waiting for people to arrive, but rather is actively looking for those who may benefit from a closer monitoring, more routine engagement with the healthcare team, or a reassessment of their medication and management strategies.</li> </ul>
<p><b>Where to next for the General Practice Pharmacist program?</b></p>	<p>WentWest is building on the General Practice Pharmacist program, and given the success of the pilot, has included pharmacists as part of its assistance to help medical practices transition from a transactional model of care, towards a patient-centred medical home model of care.</p> <p>Following several research projects into the western Sydney General Practice Pharmacist program, the University of Technology Sydney has begun training its second cohort of Graduate Certificate students. Existing General Practice Pharmacists from western Sydney have assisted with the development of the program and continue to mentor and instruct the next cohort of General Practice Pharmacists. The team is also working with Sydney University's Pharmacy students to expose them to the General Practice Pharmacist role, expanding their long-term career options.</p>

Sources: Benson (2019); Benson et al. (2018); Deeks et al. (2018); WentWest (2018b; pers. comm., 9 February 2021).

Another, so far less successful, example is the Australian Government's Pharmacy Trial Program, which seeks to improve health outcomes by extending the role of pharmacists in the delivery of primary health care services. Results of the program's implementation review suggest that restrictive rules and siloed funding may be limiting the extent to which it is providing opportunities for innovation and interdisciplinary collaboration (DoH 2019b, p. 23). This highlights that the careful design of new models of care, good communication and appropriate funding are prerequisites for effective multidisciplinary management.

Integrating additional healthcare professionals, such as pharmacists, into primary care teams has the potential to be undertaken on a larger scale. This could involve supporting GP clinics to expand care teams incrementally — adding different professionals depending upon the health needs of the local community — in line with emerging evidence about their ability to improve health outcomes. It may also lead to cost savings, with one study suggesting that every dollar spent on employing pharmacists in GP clinics could lead to savings of \$1.56,

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largely through reductions in severe adverse drug events resulting in hospitalisations (DAE 2015).

## **Reorganising workflows so that health professionals can use more of their skills**

Health professionals in Australia have long expressed concern that their training and skills are not put to full use, and that they spend time on relatively low-skilled or routine tasks that might be better allocated to other workers (PC 2015). Role delineations between professions, reinforced by long-standing practice, can act as a brake on job redesign, creation of new roles, or the use of more cost-effective workers for particular tasks.

In primary care settings, international evidence has shown that the most effective general practices have undergone a fundamental shift.

This shift involved using electronic records to their full potential, with administrative staff contacting patients before their appointment to check that any necessary tests had been done and to see whether anything else might need to be done, and contacting them to prompt them about follow-up care or immunisations. It often involved health care assistants or medical assistants greeting and ‘rooming’ patients as they arrived at the practice, taking basic observations, checking records again for any preventive measures that are due and preparing the patient for their consultation, leading to a more effective use of time for both patients and health professionals. (Baird et al. 2018, p. 66)

Many of these elements have been adopted by patient-centred medical homes and other general practices around Australia (Metusela et al. 2020), including the Mount Druitt Medical Centre (box 3.1). Bundled payments, such as those available to selected practices under the Health Care Homes trial, can support practices to improve care by redistributing work among their clinical team (HPA 2020, p. 20).

There are also examples of new workforce models in hospital settings. For example, nursing assistant programs have been trialled in Victoria, at Austin Health, where health assistants help feed patients while food is still hot, as well as assisting them to shave, wash hair and use the shower. If successfully adopted at a wider scale, the potential financial benefits of such changes could be substantial. The Grattan Institute estimated that extending the professional roles of nursing assistants could lead to savings in the order of \$360 million per year across the health system (Duckett and Breadon 2014).

Delegation to support staff can involve the creation of new workforce roles. For example, Monash Watch (case study 4) is staffed by a team comprised of Care Guides (who are trained to screen participants during regular phone calls but have no clinical qualifications) and Health Coaches (who are experienced nurses, physiotherapists and occupational therapists). The supporting role fulfilled by the Care Guides can enable the Health Coaches to work with about 90 participants at any one time, lowering the overall cost of the service while maintaining its effectiveness. And peer workers are playing an increasingly prominent role in health and social supports — especially in mental health services (section 3.3).

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Another way to maximise the value of clinicians' time is to reorganise workflows. The Darling Downs Hospital and Health Service did this when it implemented a new model of care for people with diabetes (box 3.2). The model also recognises diabetes is better managed jointly with the consumer. The Royal Perth Hospital Homeless Team (case study 9) takes a similar approach, using the skills and knowledge of people experiencing homelessness in developing treatment plans by involving them in meetings about their care, which occur daily at the hospital bedside.

### **Box 3.2 A new model of care for diabetes in the Darling Downs**

In 2016, the Darling Downs Hospital and Health Service (DDHHS) received funding from the Queensland Government's Integrated Care Innovation Fund to develop a new model of care for people with diabetes. DDHHS worked in partnership with the Darling Downs and West Moreton PHN, Queensland Ambulance Service and other local health organisations (including Goondir Health Service, with which it partnered to provide services to Aboriginal and Torres Strait Islander people). The model of care was designed to provide appropriate care to people with diabetes in, or as close as possible to, their own communities. The program includes:

- upskilling GPs to improve the quality of primary care for people with diabetes and reduce the need for people to attend hospital to receive care. An endocrinologist with the DDHHS provides education sessions, visits GP practices and provides ongoing support to GPs in key aspects of diabetes management
- restructuring the role of the diabetes nurse educators, so they can be a single point of contact for consumers. As well as connecting people with services outside the hospital, the coordinators work to streamline people's DDHHS appointments, so they can attend once per period and receive a complete package of care, rather than attending multiple times to see different health professionals. This in turn improves attendance rates
- redesigning the workflow of the diabetes outpatient clinic to better use existing resources. Appointments are now scheduled so that people see the same clinician — when previously they saw whichever clinician was free on the day of their appointment. Appointments can also now be scheduled outside business hours if needed, giving consumers and clinicians more flexibility. This redesign was essential to making this model of care the norm (since additional resources were not required on an ongoing basis) and has improved the quality and convenience of care
- creating an online Diabetes Hub. This information hub was created because the project team found that precise, trustworthy and easy-to-read information was not readily available for people with diabetes or their carers.

The new model of care reduced the proportion of diabetes-related emergency department presentations that resulted in admission, from 94% in 2015-16 to 68% in 2016-17 and 2017-18. People also reported that their care was more flexible, convenient and satisfying. The new model also improved access for people who previously had difficulty accessing appropriate care, including those living outside the region's main towns and Aboriginal and Torres Strait Islander people.

*Sources:* Clinical Excellence Queensland (2018); DDHHS (pers. comm., 14 January 2021); Diabetes Hub (2020).

The option to use different health professionals to deliver a program provides flexibility since there can be shortages of particular types of workers in some locations, or the cost of

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employing them may vary. For example, the Turning Pain into Gain program (case study 2) was developed and initially implemented by a pharmacist, but the model does not rely on a pharmacist being available to undertake initial assessments of participants. In Western Australia, physiotherapists with expertise in pain management deliver the program (Black Swan Health 2018), while in Adelaide, the role is performed by a nurse and an occupational therapist (De Morgan, Walker and Blyth 2019). Across the health system, consumer education and support is commonly provided by medical practitioners and nurses. But in the One Stop Liver Shop (case study 3), which provides services in a remote Indigenous community, local educators provide education and support to participants in a culturally safe and respectful way.

GPs' skills are sometimes also underused. Innovative programs have sought to make full use of special interests and expertise held by GPs, employing them beyond their conventional role in a community clinic. This is the focus of the following section.

### **3.2 Supporting GPs to provide more complex care**

While GPs are, by definition, generalists, many have additional training, expertise and interest in specialist areas, which could be better employed by the health system to improve career satisfaction and consumer outcomes.

In recognition that many GPs develop an interest in specific areas of practice, the Royal Australian College of General Practitioners (RACGP) has 31 specific interest groups that give GP members the opportunity to share information and knowledge. Some groups are focused on particular settings of care (custodial health, military medicine) or broader issues (refugee health, climate and environmental medicine), while others focus on particular areas of medicine (cardiology, dermatology, respiratory medicine and palliative care, among others) (RACGP 2020b).

GPs with special interest (GPwSIs) can obtain a specific interest membership from the RACGP, which helps them access resources and contacts. However, there is no uniform requirement constituting a special interest, and the various disciplines have different requirements. Some specific interest groups have developed training and accreditation processes, but others have no such framework.

GPwSIs can provide care to people who would otherwise need to be seen by specialists. They work across a range of settings, including independent clinics, hospital outpatient departments, in specialist teams or primary care teams. Some GPwSIs may focus only on their area of interest, while others augment their ongoing general practice with their specialist skills.

Experience from Australia and overseas suggests that GPwSIs can improve access to care while achieving comparable outcomes to those achieved by specialists. Consumers were more satisfied with GPwSI services than conventional hospital or specialist clinics, because

of shorter waiting times and greater convenience. They can also provide comparable care at lower cost than specialist outpatient care, or cost slightly more but achieve improved access and similar health outcomes (Yellamaty et al. 2019).

GPwSIs have led to care improvements in several places in Queensland. For example, Brisbane North PHN has had success supporting GPwSIs to work alongside physiotherapists to take the pressure off the hospital pain unit. Providers work under the supervision of the pain specialist and receive referrals from GPs via Queensland’s central consumer intake system (De Morgan, Walker and Blyth 2019, p. 15). The Sunshine Coast Hospital and Health Service has used GPwSIs to take referrals for people who would otherwise have been on waiting lists for specialists (case study 6).

<b>Case study 6</b>	<b>Sunshine Coast’s GPwSI model of care</b>
<p><b>What is Sunshine Coast’s GPwSI model of care?</b></p> 	<p>The Sunshine Coast GPwSI program is a model of care that integrates GPs with additional skills and expertise into specialist-led clinical teams in hospital outpatient units to:</p> <ul style="list-style-type: none"> <li>• reduce specialist waiting lists</li> <li>• facilitate better communication between primary care and hospitals</li> <li>• improve discharge of consumers back to their GP.</li> </ul>
<p><b>How was Sunshine Coast’s GPwSI model of care developed and implemented?</b></p>	<p>In 2018, the Sunshine Coast Hospital and Health Service (SCHHS) developed a GPwSI program. The pilot of the GPwSI program was funded by the Healthcare Improvement Unit in the Queensland Department of Health. It involved recruiting 24 local GPs (three full-time equivalents) to participate on a part-time salaried basis across 12 specialties — general surgery, dermatology, gastroenterology, gynaecology, immunology, mental health, neurology, orthopaedics, paediatrics, persistent pain, respiratory medicine and urology.</p> <p>In addition to having vocational registration with their specialty college and a minimum of five years’ GP experience, GPs need additional skills to work in the GPwSI program. Specialties such as paediatrics and dermatology require additional qualifications, while other specialties provide on-the-job training. GPwSIs work one to two clinic sessions per week, in addition to their work as community GPs.</p>
<p><b>What has Sunshine Coast’s GPwSI model of care achieved?</b></p>	<p>The GPwSI pilot program led to improvement in the share of people seen within recommended wait times, as well as having positive effects on access, efficiency, and clinician and consumer satisfaction.</p> <p>GPwSIs conducted 3500 additional episodes of care and reduced the proportion of people on long wait lists in six out of nine specialties.</p>

<p>(continued)</p>	<p>They also improved discharge to primary care, with GPwSI clinics recording higher discharge rates within the outpatient clinic.</p> <p>The program has continued to operate past its pilot phase to become an established model of care in the SCHHS outpatient unit. For example, dermatology GPwSIs now conduct about 80% of skin cancer excisions, allowing the dermatologists to focus on more complex dermatological conditions.</p>
<p><b>What makes Sunshine Coast's GPwSI model of care successful?</b></p>	<p><b>The GPwSI program is supported by a GP Liaison Unit</b></p> <p>The GP Liaison Unit in SCHHS provides a central point of contact for all stakeholders — community general practice, hospital teams and GPwSIs. The unit has good relationships with community GPs, which helps to attract quality candidates for the GPwSI program.</p> <p><b>The GPwSI program has strong support in the hospital</b></p> <p>Within SCHHS, the Executive Director of Medical Services is executive sponsor of the program. This executive buy-in helped during the adjustment period that was necessary to brief teams and properly induct GPwSIs — they needed time to become familiar with hospital processes and systems.</p> <p>Outpatient specialists also had a stake in the success of the program as the medical directors of each specialty planned GPwSI roles, selected candidates and conducted interviews collaboratively with the GP Liaison Unit. GPwSIs report clinically to their specialty director and to the GP Liaison Unit as their line manager. Specialist consultants are available for GPwSIs to refer to if the need arises.</p> <p><b>GPwSIs retain strong community links</b></p> <p>The GPs involved in the GPwSI program have extensive experience, and continue to practice as community GPs. This has helped to:</p> <ul style="list-style-type: none"> <li>• increase the completeness of discharge documentation (including the circumstances which may require referral back to the GPwSI)</li> <li>• better identify patients who could be discharged, those who need additional specialist care and the capacities of community GPs to manage outgoing patients</li> <li>• build the capacity of other local GPs.</li> </ul> <p><b>The GPwSI program is a sustainable model</b></p> <p>Salaries comprise most of the cost of the GPwSI program. About half of this cost is covered by SCHHS's service agreement with the Queensland Department of Health. The remainder of the cost is offset through the occasions of service that the GPwSIs provide, or via Medicare billing where appropriate. An agreement with the local PHN also helps to finance the work of the mental health GPwSIs.</p>

Sources: Krays, Johnston and Pearce (2019); SCHHS (pers. comm., 6 January 2021).

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The GPwSI role aligns well with broader moves towards integrated care.

If the 1940s and '50s were about medical generalism, and the 1970s, '80s and '90s were about specialisation, then surely the 21st century, with its aging population and increasing prevalence of chronic disease and multiple comorbidities, demands a careful mix of both these approaches. General practitioners with a special interest will be an essential element in facilitating this combined approach, and if carefully nurtured and supported, will bring a diversity to general practice that will reward both Australian communities and the GPs themselves. (Spurling and Jackson 2009, p. 339)

Employing GPwSIs has proved to be a flexible way to handle unpredictable problems. For example, GPwSIs were an integral part of the Sunshine Coast Hospital and Health Service response to the COVID-19 pandemic in 2020. They reviewed consumers via a virtual fever clinic and conducted tests if necessary, which helped to avoid further stress on emergency departments (SCHHS, pers. comm., 6 January 2021).

Several of the innovative initiatives described in this report used GPwSIs as a key plank of their efforts. For example, a GP who is a specialist in homeless health care is an integral part of the Royal Perth Hospital Homeless Team (case study 9), and joins a practice nurse, clinical hospital lead, caseworker and administrative assistant to deliver health and social services to people experiencing homelessness. When the Turning Pain into Gain program (case study 2) was implemented in Adelaide, it linked participants with a GP with a special interest in pain management (De Morgan, Walker and Blyth 2019, p. 16).

If supported by appropriate facilities and systems, GPs can provide care that would otherwise take place in a hospital setting. One example is South Australia's Priority Care Centres, which provide community-based healthcare and treatment for people who would otherwise be seeking care in an emergency department (ED). Priority Care Centres provide care for people with low-acuity conditions (such as simple fractures; urinary tract infections; and minor sprains, strains, cuts and wounds). GPs lead the centres with support from hospital staff specially trained in acute assessment and care (Wellbeing SA 2019).

As well as providing same-day treatment to replace care in EDs, GPs can also contribute to treating more acute conditions without a hospital admission. For example, in Tasmania, the Community Rapid Response Service works with GPs to provide care outside the hospital environment for people needing intermediate assistance who would otherwise present to hospital EDs (box 3.3).

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### Box 3.3 **Tasmania's Community Rapid Response Service**

The Community Rapid Response Service (ComRRS) provides home-based care for people at risk of a hospital visit. The service covers a range of conditions often treated at hospitals, including acute injury or illness (such as falls or influenza), deterioration of chronic conditions (such as heart failure or diabetes), infections, nutritional deficiencies and palliative care.

People are referred to ComRRS by their GP and can expect a response from a ComRRS nurse within four hours of referral. A nurse practitioner, community nurses, the person's usual GP and other health professionals, such as physiotherapists and occupational therapists, all plan care together with the consumer. Depending on their needs, ComRRS staff visit people at home (or in a residential aged care facility) up to four times a day for a period of up to four weeks.

ComRRS provides cost-effective care for people who are in the intermediate space between acute and community health services. The program's uptake among GPs was strong, which helped to take pressure off emergency departments.

- 85% of GPs whose patients live in areas where ComRRS is offered refer to the service.
- 96% of people seen by ComRRS would otherwise have needed to go to an emergency department.

ComRRS cost about \$840 000 over a 10-month period. Usual care would have cost about \$2.2 million, suggesting savings of close to \$1.4 million.

*Sources:* Tasmanian Health Service (2020); Walsh and Turnock (2017).

## 3.3 **Developing peer support roles to improve the consumer experience**

Many programs that have had success in assisting people with complex conditions or whose health needs interact with their social or cultural needs have developed support roles — such as peer workers — and integrated them into the health workforce. By catering to people's health conditions and social needs in a way that draws on shared culture or lived experience, these roles can improve the experience of care and the efficiency of its delivery.

Peer workers can play a pivotal role supporting people from disadvantaged communities or those who have difficulty finding and maintaining contact with health services. Peer workers are people with lived experience of a condition or complex situation who provide emotional and social support to others who may benefit from their knowledge. They are often employed to work with people with mental health issues, alcohol and other drug addictions, family violence issues or homelessness (PC 2020c), and increasingly for chronic conditions such as diabetes (Dale, Williams and Bowyer 2012). Peer workers can help people with:

- managing their chronic condition, such as working out plans for pursuing goals developed with a clinical team
- social and emotional support
- accessing clinical care and community resources (Fisher et al. 2015).

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Peer workers' personal experience improves their ability to build relationships based on trust, acceptance, understanding and empathy (Davidson et al. 2012). They can reach groups that health services often fail to engage (Sokol and Fisher 2016). Peer workers' ability to establish trust and rapport makes them ideally suited to supporting people with complex health and social needs who have difficulty accessing and maintaining contact with services, or difficulty trusting clinicians and other health workers (Davidson et al. 2012). Being non-clinical staff, they also offer cost-effective support that can free up clinicians for more specialised tasks.

Peer workers who share demographic and cultural characteristics with the people they assist can improve chronic disease prevention and self-management outcomes in culturally and linguistically diverse communities (Goris et al. 2013, p. A). A Victorian program, for instance, offers peer support groups to people with diabetes in three languages. The program provides a range of services, including research and information, talks by diabetes educators and dietitians, opportunities to take part in information sessions and events, financial support through grants, and access to program coordinators (Diabetes Victoria 2020). However, it appears that such programs are relatively rare, and it is unlikely that they meet the needs of all people with chronic conditions who may benefit from them.

While the quality of evidence is mixed, research shows that peer workers generally improve health outcomes (Hu et al. 2019; Patil et al. 2016). A systematic review found peer workers acting as educators or group facilitators improved consumer knowledge, attitudes, beliefs and perceptions, while also improving social connectedness and engagement, leading to behavioural change and improved health (Ramchand et al. 2017). Peer workers can also make a substantial contribution to the delivery of recovery-focused mental health services (PC 2020c).

Because of the significant potential for peer workers to contribute to improved service delivery, several of the examples included in this report, such as Turning Pain into Gain (case study 2) and the Stanford model of self-management education (chapter 2), use peer workers or volunteers who have completed the programs themselves to provide services. Choices, a hospital diversion program in Perth, also uses the peer support model to help vulnerable people access care in the community (case study 7).

Case study 7	Choices
<p><b>What is Choices?</b></p> 	<p>Choices is a three-month program aimed at reducing recurring presentations to emergency departments (EDs) and justice services. It provides people at risk of poor health outcomes with peer support and case management.</p>
<p><b>How was Choices developed and implemented?</b></p>	<p>Choices began in 2017 as a response to the overrepresentation in emergency departments (EDs) of people with multiple health and social needs. It is delivered by Ruah Community Services, which employs the Choices workers, and funded by the WA Primary Health Alliance, which operates Western Australia's three PHNs. Choices is based at three sites: two hospitals and the Magistrates Court in Perth.</p> <p>Three types of workers provide support to Choices participants.</p> <ul style="list-style-type: none"> <li>• Peer support workers, who have lived experience of mental health and/or alcohol and other drug issues. They are responsible for initial engagement, establishing rapport with the person in the hospital or justice setting, assisting them with their most immediate needs and taking handover from ED or police staff.</li> <li>• Peer community workers, who have the same support role as peer support workers, but are also responsible for assessment, planning, case management and coordination.</li> <li>• Senior community workers who, in addition to their case load, engage with complex clients, conduct outreach support in the community, and provide supervision and support for peer workers. They have a relevant tertiary degree in a related discipline and three to five years' experience.</li> </ul> <p>Peer workers are located at the two hospitals and assigned to patients at discharge. They provide people with emotional support, help them navigate services to ensure continuity of care, and make contact with community services to address social issues (such as homelessness).</p>
<p><b>What has Choices achieved?</b></p>	<p>An evaluation of Choices conducted in 2019 measured people's outcomes in the 12 months before and after their enrolment. It found a 35% reduction in both the number of people presenting to ED and the number admitted to inpatient units. Comparing costs six months before and after Choices, hospital costs declined \$248 000 from fewer ED presentations and \$905 000 from fewer inpatient days.</p> <p>There were also improvements to justice outcomes when comparing outcomes 12 months before and after enrolment. For example, the evaluation reported an 18% decrease in the number of participants committing offences and a 60% decrease in the number of participants brought to ED by police.</p>

<p><b>What makes Choices successful?</b></p>	<p>Key factors that contribute to the success of Choices include:</p> <ul style="list-style-type: none"> <li>• the use of peer workers, who draw from their experiences to establish a trusting relationship with each participant, help with system navigation, and act as their advocate</li> <li>• addressing the social determinants of health — the social and economic conditions that contribute to ill-health (such as homelessness, mental health issues, alcohol or other drug addictions)</li> <li>• individualised support, allowing staff to offer support at the intensity the person is comfortable receiving, and allowing the person to transition to self-management of care (for example, making and attending appointments independently) at their own pace.</li> </ul>
<p><b>Where to next for Choices?</b></p>	<p>WA Primary Health Alliance has entered into an agreement with the Australian Government to expand the Choices program in the Perth Metro North and South PHNs across four sites. Funding has been secured until June 2023. As part of the agreement, WA Primary Health Alliance must consider and plan for the ongoing sustainability of this activity beyond the funding period.</p>

Sources: WA Primary Health Alliance (pers. comm., 14 January 2021); Wood et al. (2019).

Peer workers are most effective when they can easily obtain referrals from other services, and then link people to the relevant supports. For example, peer workers are assisting people experiencing homelessness or abuse to access crisis accommodation, temporary accommodation or refuges in order to prevent a further deterioration in their condition (Wood et al. 2019).

### 3.4 Growing the Indigenous health workforce

Aboriginal and Torres Strait Islander people experience high rates of chronic conditions and potentially preventable hospitalisations for those conditions (chapter 1). The recent *Overcoming Indigenous Disadvantage* report identified strategies for achieving reductions in these rates and improving the effectiveness of preventive and primary healthcare services for Aboriginal and Torres Strait Islander people. These include:

1. eliminating barriers to accessing healthcare services
2. designing realistic and achievable treatment plans, and in doing so, empowering people with the understanding that they can influence their health outcomes through their own positive actions
3. ensuring the cultural safety of health care services, so they are not only accessible but also appropriate to the needs of Aboriginal and Torres Strait Islander people (SCRGSP 2020).

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Practical examples of the first two strategies are considered in chapters 2 and 4. They include Western Sydney's COVID-19 response (case study 8), which improves access to COVID-19 testing and care by providing culturally specific support for Aboriginal and Torres Strait Islander people, and the One Stop Liver Shop (case study 3), which enhances treatment for people with chronic hepatitis B by bringing specialist care and translated information to remote communities.

The third strategy — providing culturally safe care — refers to the accumulation and application of knowledge of Aboriginal and Torres Strait Islander values, principles and norms (AIDA 2018). Hiring and retaining local Aboriginal and Torres Strait Islander health care staff, aided by training and development opportunities for all staff, are key to increasing the cultural competence of health professionals (SCRGSP 2020).

Aboriginal Health Workers and Aboriginal Liaison Officers have been a long-standing part of the health workforce. Aboriginal and Torres Strait Islander health practitioners understand the needs and priorities of the community and can often speak the local language, which can improve community engagement and increase community members' access to health care services. They improve communication between health workers and the community, promote continuity of care and reduce rates of discharge from hospital against medical advice (Mackean et al. 2020).

Aboriginal and Torres Strait Islander staff can also act as cultural mentors to non-Indigenous staff, helping to increase the cultural safety of the health service more widely (Abbott, Gordon and Davison 2008; Gibson et al. 2015).

Aboriginal health professionals can be employed in many roles. Dedicated roles include Aboriginal and Torres Strait Islander Health Workers (which usually require a certificate III qualification), Aboriginal and Torres Strait Islander Health Practitioners (requiring a certificate IV qualification and registration with the Australian Health Practitioner Regulation Agency) and Indigenous Liaison Officers (HWA 2014). Depending on an individual's qualifications and operating environment, these roles can encompass clinical care and health promotion, care navigation and coordination, cultural liaison and brokerage with non-Indigenous staff, cultural mentoring of non-Indigenous staff and other informal education and support to the community (Abbott, Gordon and Davison 2008). The employment of Aboriginal and Torres Strait Islander people in other clinical or non-clinical roles can also contribute to the cultural safety of health care (Hayman 2010; Taylor et al. 2020; West, Usher and Foster 2010).

An Indigenous health workforce is also frequently identified as a key success factor in the implementation of health programs, including primary healthcare interventions for Aboriginal and Torres Strait Islander people with chronic conditions (Gibson et al. 2015; McCalman et al. 2016). For example, in the One Stop Liver Shop (case study 3), community-based educators and coordinating Aboriginal Health Practitioners are the linchpins of the model, with fly-in fly-out expertise of liver specialists in addition to the care that is consistently provided by local workers who are members of the community.

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However, a recent study of the Aboriginal and Torres Strait Islander Health Worker workforce between 2006 and 2016 found that the growth in this workforce was not commensurate with population growth and, that the number of these workers was declining in some regions (Wright, Briscoe and Lovett 2019).

Strategies with a local focus have shown most promise in addressing this decline. For example, IUIH has a workforce development strategy to help meet its need for a local Indigenous health workforce (box 3.4). And in the Northern Territory, Katherine West Health Board Aboriginal Corporation has begun to develop a curriculum for training Aboriginal Health Coaches — a new workforce role that would allow school leavers in remote communities to support others in their community to manage their health conditions day-to-day (Hunt and Wyatt 2020).

#### **Box 3.4      Growing our Own — IUIH’s workforce pipeline strategy**

The Institute for Urban Indigenous Health (IUIH) employed 322 Aboriginal and Torres Strait Islander people in 2019-20, nearly half of its total workforce. This helps the service to maintain a strong connection to community.

About 20% of IUIH’s workforce is drawn from its own pipeline — a long-term, deliberate workforce development strategy called ‘Growing our Own’. The strategy includes 22 professional development and study programs, including ready-to-work programs, school-based programs, vocational education traineeships, university placements and management training for emerging leaders in the organisation. The programs prioritise enrolments from disadvantaged and vulnerable Aboriginal and Torres Strait Islander young people experiencing barriers to education and work.

The school-based traineeship provides an opportunity for students to train as Allied Health Assistants. This training is complemented by pastoral care and support. In one program, 85% of the trainee cohort went on to work at IUIH. Vocational education traineeships enable students to complete a Certificate III or IV in areas related to health and wellbeing, such as fitness, individual support, primary health care, business administration and dental assisting.

A student placement partnership with the University of Queensland aims to provide students with exposure to the community-controlled health sector. The Ready to Work program supports young people transitioning into the workforce. Half the program participants have moved into employment following the program and many others have gone on to participate in further training.

*Sources:* IUIH (2018, 2019, 2020b); Nous Group (2019b); Turner et al. (2019).

Developing career pathways and offering professional development and leadership opportunities are important strategies for retaining Aboriginal and Torres Strait Islander health workers who are already employed in the health system. Collaborative processes, which support Indigenous and non-Indigenous staff to work together and learn from each other, lead to greater job satisfaction and better outcomes for consumers (Jongen et al. 2019). These processes are the focus of the next chapter.



## 4 Building and sustaining collaboration

<p><b>Key problems</b></p>	<p>Sustained collaboration does not happen spontaneously. There are few financial incentives for collaboration, and barriers — such as professional and information silos as well as funding constraints — make it difficult for workers, managers and leaders to collaborate.</p>	
<p><b>Examples of initiatives that address the problems</b></p>	<p><b>Western Sydney’s COVID-19 response</b> — a long-standing partnership rapidly developed a COVID-19 screening, assessment and management model that centres on community and primary care.</p>	
	<p><b>Royal Perth Hospital Homeless Team</b> — shared care planning involving a GP, a practice nurse, a caseworker and the client at the hospital bedside.</p>	
	<p><b>The Collaborative</b> — a partnership between a hospital, primary health network and community health providers that is making collaboration a routine part of their organisations.</p>	
<p><b>Key findings</b></p>	<ul style="list-style-type: none"> <li>• Formalised approaches to collaboration within teams and between organisations can significantly improve health outcomes.</li> <li>• Collaborative models differ, reflecting local needs and operating environments. But success commonly depends on dedicating time, space and resources for collaboration. This includes having designated workers and activities to promote collaboration, clear governance and accountability mechanisms, and funding contributions from all partnering organisations.</li> </ul>	

Collaboration brings together professionals within and across the health and community sectors to manage the many needs of people with chronic conditions. They may share decision making, jointly implement care plans and distribute responsibility among team members for achieving patient outcomes (Saint-Pierre, Herskovic and Sepúlveda 2018). The World Health Organization (2010) notes that effective collaboration improves access to

health services and health outcomes for people with chronic conditions; and reduces patient complications, clinical error rates, length of hospital stay and staff turnover. Recent initiatives to manage COVID-19 have shown the importance of collaboration (case study 8).

Collaboration can improve the efficiency of the health system. By managing health and social issues in the right settings, or by finding cost-effective solutions, collaboration takes pressure off the most expensive parts of the health system. A recent meta-analysis found that integrated care models, which are based on collaboration, had costs that were on average 5.6% lower than standard models of care, and led to better health outcomes by lowering mortality rates and increasing quality-adjusted life years (Rocks et al. 2020). However, during our search of innovative primary care initiatives, we heard that collaborative efforts are often short-lived due to difficulties in securing ongoing funding, sharing information and changing the way teams and organisations operate (chapters 3–6 examine these issues).

Nevertheless, there are examples of enduring collaborations with proven benefits for consumers. These come in many forms. Within general practice, collaboration can involve teamwork by a general practitioner (GP), nurse and allied health professionals. Across organisations, collaboration can involve co-operation and coordination by health workers, managers and leaders. Examples include team-based care that brings together clinicians from acute and primary care and GP referrals to community services.

<b>Case study 8</b>	<b>Western Sydney’s COVID-19 response</b>
<p><b>What is Western Sydney’s COVID-19 response?</b></p> 	<p>During COVID-19, long-standing collaborative partnerships mobilised quickly to manage the spread and treatment of the disease. Western Sydney Primary Health Network (WentWest) and Western Sydney Local Health District (WSLHD) worked together to establish COVID-19 clinics, home-based monitoring, community-based treatment, and information and referral pathways. The Collaborative in Melbourne also developed a successful risk-stratified COVID-19 care pathway (case study 10).</p>
<p><b>How was Western Sydney’s COVID-19 response developed and implemented?</b></p>	<p>COVID-19 was first confirmed in Australia on 25 January 2020 (VIC DHHS 2020e). WentWest and WSLHD responded quickly by setting up 20 COVID-19 screening and treatment clinics, and developing treatment pathways based on the severity of the disease (WentWest 2020). WentWest and WSLHD partnered with general practices to provide testing and community-based treatment for people who tested positive and were assessed as low risk, while people with the disease who were at higher risk were referred to hospitals in WSLHD’s catchment area. In addition, WentWest and WSLHD used CareMonitor software that enabled low-risk patients to be monitored by their care team remotely, and facilitated clinical handover to the patient’s usual general practice (Messom 2020; chapter 5).</p>

<b>(continued)</b>	<p>WSLHD partnered with a primary care practice to establish a COVID-19 clinic that provided culturally specific support for Aboriginal and Torres Strait Islander people, who make up a significant proportion of the Western Sydney population (WSLHD 2020). The clinic provided social support, such as organising temporary accommodation and mental health services for those found to have COVID-19 who needed additional assistance. Complementing these services, WSLHD developed a pamphlet to inform Aboriginal and Torres Strait Islander people about what happens after testing. NSW Health has rolled out this pamphlet across the state.</p> <p>Further, WentWest worked with other primary health networks to update referral pathways and provide up-to-date information to general practices on COVID-19 assessment and management, telehealth and practice preparation (Messom 2020).</p>
<b>What has Western Sydney's COVID-19 response achieved?</b>	<p>As at 30 June 2020, Western Sydney had conducted almost 95 000 COVID-19 tests (Messom 2020). At one stage, 11% of those attending the clinic that provides culturally specific care identified as Aboriginal and Torres Strait Islander people (WSLHD 2020). To put this in context, in 2016, almost 950 000 people lived in WentWest's catchment area, of whom about 1.5% identified as Aboriginal and/or Torres Strait Islander (WentWest 2018a). Information on COVID-19 referral processes were viewed over 33 000 times by 1900 healthcare professionals (Messom 2020).</p>
<b>What makes Western Sydney's COVID-19 response successful?</b>	<p>WentWest attributes the speed of Western Sydney's COVID-19 response to:</p> <ul style="list-style-type: none"> <li>• pre-existing integrated services and collaboration across Western Sydney's health system, comprising WentWest, WSLHD, general practices, non-government organisations and private companies</li> <li>• the good relationships between WentWest and WSLHD, which were forged over many years of working together on healthcare initiatives</li> <li>• information sharing between primary care and hospitals, which enabled shared care planning and consumer self-management</li> <li>• community trust, which facilitated the establishment of clinics</li> <li>• flexible COVID-19 block funding, which enabled WentWest to deploy GPs across clinics (DoH 2020a; Messom 2020; WentWest 2021).</li> </ul>

This chapter examines examples of successful collaborations, which reflect three key factors — good working relationships (section 4.1), effective leadership and governance (section 4.2) and shared funding (section 4.3; figure 4.1).

Figure 4.1 **Enablers of collaboration**

<p><b>Helping workers to collaborate</b> (section 4.1)</p>	<ul style="list-style-type: none"> <li>• Regular meetings build knowledge and trust, and improve treatment planning</li> <li>• Well-designed physical and virtual settings promote communication and joined-up services</li> <li>• Dedicated coordination roles and comprehensive, up-to-date referral pathways aid continuity of care</li> </ul>	
<p><b>How leaders and managers support collaboration</b> (section 4.2)</p>	<ul style="list-style-type: none"> <li>• A compelling business case builds support for collaboration</li> <li>• Clear governance keeps partners accountable for achieving collaborative goals</li> <li>• Leaders need the support of project managers to achieve goals</li> <li>• Monitoring progress helps maintain collaborative momentum</li> </ul>	
<p><b>Funding collaboration</b> (section 4.3)</p>	<ul style="list-style-type: none"> <li>• Funding and in-kind contributions from all partners shows commitment to collaboration and supports joint decision making</li> <li>• Flexible funding sources are often used to demonstrate the value of collaborative approaches</li> </ul>	

## 4.1 Helping workers collaborate in a systematic way

The successful collaborations we examined bring together workers from a range of health and community service fields, who recognise the benefits of a multidisciplinary approach to the management of chronic conditions.

These initiatives use various strategies to overcome the professional silos and cultural biases that commonly blind some staff to opportunities for collaboration. These include an ‘acute care mindset’, which places hospitals at the centre of collaborative processes, and doctor-centric leadership, where hospital doctors or GPs have ultimate authority over clinical decisions and do not enable nurses, allied health professionals or social workers to participate in treatment planning (Cordis Bright 2018).

The strategies used to encourage collaboration range from formal meetings and referral networks to informal interactions based on location and physical proximity. In some cases, formal care coordinator positions have been used to facilitate collaboration between the health and community sectors.

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## Meetings build knowledge, trust and respect

Meetings are an often neglected feature of collaboration. Research finds that meetings are ‘perhaps the most significant antecedent to be overlooked in the context of collaboration between GPs and nurses’ (McInnes et al. 2015, p. 18). Well-organised meetings have been shown to help build a shared vision, trust and confidence in members’ skills (Franklin et al. 2015). Meetings help staff overcome their resistance to working collaboratively by showcasing the knowledge and problem-solving skills of different healthcare and community service workers. For example, meetings where nurses can participate in decision making improve collaboration and help GPs to gain an appreciation of nurses’ capacity to contribute to care planning (McInnes et al. 2015).

The frequent absence of meetings from systematic collaboration reflects: time pressures on clinicians; a lack of recognition of the contribution all team members can make to decision making and goal setting; confusion about how governments compensate health professionals for participating in case conferencing; and unclear roles and scope of practice, particularly for nurses (chapter 3).

Nevertheless, some innovative healthcare initiatives use meetings as a central part of service delivery. For example, for many years, St Vincent’s Health Services Melbourne has held weekly multidisciplinary meetings to discuss treatment options for clients with complex needs (Wood et al. 2017). Each meeting is led by a different team member — a nurse, care coordinator, doctor, mental health worker, addiction medicine specialist, ambulance paramedic, community service provider or case manager — who presents challenging cases to colleagues to refine treatment plans. Similarly, the Royal Perth Hospital Homeless Team meets daily at the hospital bedside to develop treatment plans (case study 9).

Despite differences in form and frequency, these examples show that successful meetings have common characteristics. They have clear purposes (such as to develop treatment plans), share relevant information and involve all team members in decision making. They also help to monitor the team’s progress and provide opportunities to reflect on the team’s success.

Case study 9	Royal Perth Hospital Homeless Team
<p><b>What is the RPH Homeless Team?</b></p> 	<p>The Royal Perth Hospital (RPH) Homeless Team was established in 2016 to improve health and social outcomes for people experiencing homelessness. It is a collaboration between Perth’s specialist homeless GP practice, Homeless Healthcare (HHC) and RPH, Perth’s only inner-city hospital.</p> <p>The Homeless Team model is unique in Australia as it is the only hospital-based homeless healthcare team that consists of a GP, a practice nurse, caseworkers, a hospital clinical lead and an administrative assistant.</p> <p>The team aims to enhance care coordination, discharge planning and primary care access, while also identifying and addressing the underlying social determinants of ill-health of people experiencing homelessness.</p>
<p><b>How was the RPH Homeless Team developed and implemented?</b></p>	<p>HHC GP and homeless sector services were keen to establish a Homeless Team at RPH, based on knowledge about hospital homeless teams in Boston and London. The idea gained considerable traction in 2014 when RPH appointed a new executive director from the United Kingdom who was familiar with the success of the London homeless health program, Pathway.</p> <p>However, despite the support of senior leaders at the hospital, a range of challenges meant that it took nearly two years to set up the Homeless Team. An early hurdle was contracting a GP and a practice nurse to provide services in the hospital. Government funding arrangements make it difficult for GPs to work in hospitals, and it took about a year to overcome this issue. It was eventually resolved with a fixed-cost contract for the GP and practice nurse to provide services as visiting practitioners in the hospital.</p> <p>Similarly, sourcing funding for caseworkers was difficult as there was no precedent for this role in a hospital setting. The team mainly relied on philanthropic donations to fund caseworkers, but at times a limited amount of local area health service and Western Australian Department of Health funding was available. Using evidence to show the added value of caseworkers was a crucial step in securing various funding sources.</p>
<p><b>What has the RPH Homeless Team achieved?</b></p>	<p>As at December 2020, the RPH Homeless Team has supported more than 1800 people, many of whom have multiple and complex health issues exacerbated by living on the streets. Western Australia has a comparatively large population of rough sleepers — 12% of people experiencing homelessness in Western Australia are rough sleepers, compared with the national average of 7%.</p>

<b>(continued)</b>	<p>An evaluation conducted by researchers at the University of Western Australia in 2019 showed that the Homeless Team’s interventions were associated with significant reductions in emergency department and inpatient admissions. This equated to an estimated reduction in hospital bed use of \$4.6 million per year — much lower than the team’s operating costs of \$500 000 per year. The largest reductions in hospital use were seen among people who had been housed and had access to after-hours GP and nurse home visits. These reductions are especially significant: they reversed clients’ increase in emergency department visits and unplanned inpatient admissions that occurred in the three years prior to involvement with the Homeless Team.</p>
<b>What makes the RPH Homeless Team successful?</b>	<ul style="list-style-type: none"> <li>• Having at least one lead champion within the hospital is invaluable. At RPH this has included the executive director and a senior emergency department consultant who remains the clinical lead for the team.</li> <li>• The team’s composition is another key to its success. It is in the unique position of having GP in-reach from a specialist homeless healthcare primary care service, coupled with caseworkers with strong ties to housing and community services. The team now also has a peer worker, which is another feature of the United Kingdom model.</li> <li>• The team uses a systematic approach to identify people experiencing homelessness in the hospital, and coordinate treatment and discharge planning. Each weekday, the team reviews hospital attendance and undertakes ward rounds to find patients who are homeless. The team works with the patient to develop a shared care plan, which typically includes the identification of medical, housing and social supports following hospital discharge. The team considers options for ongoing treatment and chronic disease management that can be delivered in general practice and community settings.</li> <li>• The Homeless Team has built an evidence base from the outset via a strong collaborative research partnership with the Home2Health team in the School of Global and Population Health at the University of Western Australia. Regular evaluations are a key part of quality improvement and help to demonstrate the health, housing and economic benefits of the team’s work.</li> </ul>
<b>Where to next for the RPH Homeless Team?</b>	<p>The Homeless Team is involved increasingly in advocating for policy changes and health service innovation that can significantly improve the health and wellbeing of people experiencing homelessness. In particular, the team is advocating for increases in long-term, safe accommodation options for people experiencing (or at risk of) homelessness; and supporting people to stay housed. The team continues to advise health and homeless sector services in other jurisdictions that have shown interest in the integrated hospital GP in-reach model.</p>

Sources: ABS (*Census of Population and Housing: Estimating Homelessness, 2016*, Cat. no. 2049.0); Associate Professor Lisa Wood, University of Western Australia (pers. comm., 25 September 2020); Gazey et al. (2019); Homeless Healthcare (pers. comm., 18 September 2020); Royal Perth Hospital (pers. comm., 2 February 2021).

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## Location, location, location — placing workers in new health settings

The physical environment can shape the form and degree of collaboration. While COVID-19 has presented challenges for bringing together different workers in the same space, close proximity between team members —via co-location, outreach or shared lunchrooms, coffee machines and other facilities — typically fosters communication and knowledge of the skills of different types of professionals, thereby breaking down cultural biases (Jackson and Nicholson 2008; Lim et al. 2020; O’Reilly et al. 2017; Taylor et al. 2020; Xyrichis and Lowton 2008). Location also confers benefits on consumers. Services that are well-placed and visible in the community raise consumer awareness and improve access. Conversely, physical impediments to collaboration (such as teams being located on different hospital floors) leave some team members feeling isolated and make it more difficult for people to get the help they need (Trankle et al. 2017).

The Choices Post-Discharge Program (case study 7) illustrates both the positive and negative potential effects of location. In its pilot phase, the Choices Program provided peer support and case management at two hospitals to people at risk of future avoidable hospitalisations.

- At one hospital, the Choices team was co-located with social workers, next to the psychiatric liaison nurse and close to the emergency department. The proximity of the Choices team to key hospital staff was seen as a strength, as it increased awareness of the program, built understanding of the role of peer workers and facilitated referrals into the program from hospital staff.
- In contrast, the Choices team at the other hospital was located far away from the emergency department and struggled to build both awareness of the program and relationships with hospital staff (Wood et al. 2019; chapter 3).

But it is not just in hospitals where location matters. Bringing health and community services ‘to the people’ is also key. For example, the Institute for Urban Indigenous Health (IUIH) network encompasses over 20 primary care clinics, aged care, family wellbeing services and health promotion programs for Aboriginal and Torres Strait Islander people in south-east Queensland (Nous Group 2019b). IUIH’s model shares similarities with other Aboriginal Community Controlled Health Services (ACCHS), which aim to be one-stop shops, providing a range of services in-house (such as primary care, allied health, cultural activities, employment and housing programs) for any community member who walks through their doors. One-stop shops enable ACCHS to increase people’s access to services, empower communities and deliver holistic care in a culturally safe way (CREATE 2020).

One-stop shops are also used by other providers, such as community health centres in Victoria, which deliver comprehensive care in primary care clinics. They bring together clinicians, nurses, allied health professionals, workers from culturally and linguistically diverse backgrounds (who deliver health promotion and help clients navigate the system in their preferred language) and specialists in areas such as refugee health (VAGO 2018).

In contrast, Perth’s Homeless Healthcare uses an outreach model. Rather than waiting for rough sleepers to visit the general practice, GPs, nurses and caseworkers deliver healthcare

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to them where they live — such as main streets, homeless day centres, women’s refuges and transitional accommodation. Taking services to the people is key to engaging those who have more pressing priorities than health management, such as finding food or accommodation. The outreach model also helps Homeless Healthcare to build relationships with a broad range of homeless services and address urgent needs in the community. Homeless Healthcare’s outreach model is supported by a Western Australian Department of Health contract to operate 11 mobile clinics in areas where people experiencing homelessness congregate (Wood et al. 2018).

Program evaluations have also shown the ways that location enhances the effectiveness of collaborative services. For example, an evaluation of St Vincent’s Health Services Melbourne (SVHM) homeless services found that the proximity of the care coordination team and respite centre to the hospital was a key success factor (Wood et al. 2017). SVHM embeds care coordinators in the hospital emergency department to assist with discharge planning for people with complex psychosocial and medical needs, many of whom are homeless. In addition, SVHM operates a medical respite centre, which is located at St Vincent’s Hospital Campus. The medical respite centre provides short-term care and accommodation for people at risk of homelessness following their discharge from hospital.

The evaluation found the close proximity of SVHM’s social and acute care services built trust between workers, enabled a greater understanding of their respective roles, and facilitated seamless transfers across the services. Clients who accessed SVHM homelessness services typically reduced their emergency department presentations, length of stay per emergency department presentation, and unplanned inpatient admissions in the six months following their engagement with SVHM. This close proximity is often missing from other similar services in Australia and overseas, which has been shown to constrain service effectiveness. Indeed, homelessness services in Western Australia ‘have lamented that there is not a similarly co-located [medical respite centre] at its inner city hospital’ (Wood et al. 2017, p. 79).

However, physical co-location is not always possible or desirable. The COVID-19 pandemic is a vivid example of the challenges of relying on physical co-location for collaboration, but this challenge has always been present for geographically dispersed teams. Telehealth, which has gained prominence during COVID-19, has advantages that may make it more attractive than physical co-location. It is often easier for clinicians to attend virtual meetings to share clinical information, which makes for more productive meetings (Cancer Australia 2020; iCIMS 2020). Indeed, telehealth is central to some collaborative models of care such as Western Sydney Diabetes, which uses virtual meetings to connect people’s usual GP with endocrinologists, diabetes educators and dietitians to develop a diabetes management plan (WSD 2020b). This collaboration assists with the management of diabetes in the community, freeing up specialised hospital care for people with more complex cases (WSD 2020a). Further, involving GPs in telehealth meetings ‘build[s] the capacity of ... GPs, to improve their diabetes management skills that can be applied to other patients they see’ (WSD 2020b).

These examples highlight the different ways that location has been harnessed to make the most of collaboration. While the models differ, success depends on getting the right workers

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in the right place (which may be a virtual space). Where possible, the design of collaborative initiatives should place key workers in visible locations, such as having emergency department diversion staff located in or next to the emergency department or establishing services in key places in the community to make it easy for people to access care. Chapter 2 discusses how services can be tailored to become more accessible.

## **Formalising referral pathways for the health and community sectors**

Collaboration can be difficult to sustain. Workers who are committed to collaboration may move on to new roles, or resources dedicated to collaboration may be reallocated as organisational priorities change. These changes may weaken the ties between workers in different healthcare areas and community organisations.

Collaboration needs to be able to withstand challenges such as these to maintain momentum. One way to do so is to formalise information sharing and links between different kinds of workers. This also enables continuity of care as providers know what other services and treatments people have accessed. Efforts are underway to develop better ways of sharing information across the health system (chapter 5). In the meantime, innovative primary and preventive healthcare initiatives have developed other models to formalise links between health and community workers, including establishing clear referral pathways and creating dedicated coordination roles.

### **Clear referral pathways bridge gaps in health and community services**

Formal referral pathways support collaboration between primary care clinicians, allied health, specialists and community service providers. Over the past few years, many primary health networks (PHNs) have invested in developing and maintaining local referral databases for GPs as part of HealthPathways, which also provides information on how to assess and manage health conditions. The development of HealthPathways is a collaborative process. It brings together a community of service providers who discuss the ways they can support consumers to build a continuum of care (PC 2020c, p. 670). HealthPathways has been critical in managing COVID-19. In Western Australia, usage of HealthPathways rose 300% within a few months after the start of COVID-19 and it has featured prominently in Western Sydney's response (WAPHA 2020; case study 8).

Referral networks can also be included in innovative models of care. For example, the Metro North Hospital and Health Service (Metro North HHS) and Brisbane North PHN collaborated to develop the Healthy Spine Service, which combines a central referral point with community-based support, care planning and consumer education (box 4.1).

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## Box 4.1 Centralised referrals for the Healthy Spine Service

### The need for a new model of care

The Healthy Spine Service was established in Brisbane in 2016 to address long waiting times for specialist outpatient clinics. Before the service commenced, many people were being referred by GPs for unnecessary specialist appointments.

The service was established by the Metro North Hospital and Health Service (Metro North HHS) in partnership with the Brisbane North PHN. It was initially funded as a trial under the Queensland Government's Integrated Care Innovation Fund. The two organisations jointly governed the project and each contributed to the establishment of the service. Metro North HHS was primarily responsible for developing the service, while the PHN provided expertise in engaging with GPs in the region and developing HealthPathways.

### The Healthy Spine Service

The Healthy Spine Service:

- created a single triage hub (called the Spinal Health Hub) for all back and neck pain referrals received by Metro North HHS. The hub refers clients to the appropriate community or specialist care provider — whether a surgeon, GP with Special Interest, allied health professional, or their own GP — based on their level of need
- established the Healthy Spine Clinic, a community-based clinic, which provides back pain assessment and care planning for people whose pain can be managed in the community. The clinic is run by GPs with Special Interest, a new workforce role (discussed in chapter 3)
- developed the Healthy Spine Program, an education program aiming to improve people's self-management skills (chapter 2 examines programs that assist people in managing their own conditions).

### Outcomes

The Healthy Spine Service improved the management of pain in the community. In its first six months of operation, 34% of referrals were triaged to the Healthy Spine Clinic — and of these, 69% were discharged back into primary care with a management plan. The Healthy Spine Service has been adopted beyond its trial period and is now part of 'business as usual'.

*Sources:* Endicott (2019); Metro North HHS and Brisbane North PHN (2018); Metro North HHS (2018, 2019); TAPPC (2019a).

Similarly, The Collaborative (case study 10) established an advisory group — comprising primary and acute care clinicians — to design treatment pathways for people with chronic obstructive pulmonary disease (COPD) and/or chronic heart failure. The pathways will be based on people's clinical risk and their social circumstances. The assessment of social circumstances distinguishes The Collaborative's approach from other models of care and will enable people with low risk to access social prescribing<sup>12</sup> and community healthcare to support their self-management. Those with medium risks will access services via a virtual hospital or Hospital in the Home service, while those with high risks will be admitted to

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<sup>12</sup> Social prescribing is the practice of clinicians referring people to non-clinical social and community activities, such as sports, to address the social determinants of ill-health, including loneliness (CHF 2020).

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hospital. This approach is being implemented in 2021 (The Collaborative 2020; pers. comm., 24 December 2020).

Referral networks should draw on a community of practice of local service providers, to ensure networks are comprehensive and up to date. However, this ideal is not always achieved. We heard stories about doctors and hospital social workers who were unaware of all the regional community organisations to which they could refer people. To overcome this problem, many ACCHS and PHNs, which have close ties to their local communities, devote resources to maintaining referral pathways and share them with local hospitals to promote more coordinated care across the health and community sectors (CREATE 2020; PC 2020c). State and Territory governments are also supporting efforts to build local communities of practice, such as through trials of flexible funding models to improve incentives for local health services to provide integrated care. HealthLinks in Victoria is one such example where communities of practice (comprising health service providers that participate in the initiative) have been established to inform the rollout of the program (VIC DHHS 2020a; chapter 6).

### Supporting collaboration often requires care coordination

Clear referral pathways are necessary to promote collaboration within the health system and with the community services sector, but may be insufficient to sustain collaboration. In part, this is because pathways require regular monitoring to ensure they remain up to date. And there are some people who find it difficult to act on a referral, particularly if they are disengaged from the health system, lack the confidence and capacity to navigate health services, or have complex conditions that would benefit from many linked-up supports — a problem addressed through formal care coordination.

There are many care coordination models operating across Australia's health system. These models use a dedicated coordinator who brings together a team of different service providers to support people who need additional assistance in managing their health. Coordinators are often nurses or peer workers located in hospitals who have comprehensive knowledge of regional health and community services, and build relationships with service providers. GPs can also play linking roles, as demonstrated by GP liaison units in hospitals, which build relationships between primary care and hospital doctors. Coordination units may also deliver health education and assessment, contribute to management plans and help people become more engaged in the self-management of their conditions (CHERE 2017). Similarly, care coordination is an important feature of the ACCHS model. ACCHS coordinate care by linking people to different services that are provided 'in-house' and help people move easily between providers. They 'reduce the burden on clients having to re-tell their story to different clinicians and providers' (CREATE 2020, p. 72).

Evaluations of care coordination models show they reduce hospitalisations and improve health outcomes. For example, in Brisbane North, participants in the care coordination program experienced improvements in their acuity scores, which measures the intensity of required care. Almost half of people with 'fair' acuity scores at the beginning of the program

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saw their acuity scores improve to ‘good’ by the end.<sup>13</sup> There was also a statistically significant decrease in emergency department presentations after 12 months, but no statistically significant change in the number of hospital bed days per admission (CHERE 2017). Similarly, in its first two years of operation, the Bunbury Hospital Chronic Conditions Care Coordination Service saw a 56% reduction in emergency department presentations, a 16% fall in the length of hospital stay and savings of more than \$1.5 million in avoided costs for people enrolled in this service (WA Primary Health Alliance and WA Country Health Service, pers. comm., 4 November 2020).

Organisational and leadership support for dedicated coordination roles enhances collaboration (section 4.2). Organisational support typically involves information sharing and training — giving coordinators access to up-to-date referral pathways and the capacity to build relationships with community providers. In Bunbury, the hospital care coordinators have access to real-time information on eligible people presenting at hospital and on their use of services and outcomes (WA Primary Health Alliance and WA Country Health Service, pers. comm., 4 November 2020). Likewise, care coordinators in the OPEN ARCH program in Queensland, which assists elderly people with complex needs, are supported by a specialist geriatrician, who conducts a comprehensive needs assessment and regularly meets with the care coordinator and the client’s GP to plan care (Mann et al. 2020).

## **4.2 How leaders and managers support collaboration**

Many innovative preventive health programs begin with a ‘champion of change’ — an individual who recognises a need for improvement within an organisation, sector or region, develops an idea to solve the problem, and then works to bring others on board (Shea and Belden 2016). For example, we heard about a doctor who ran a homeless healthcare practice out of his car because existing models of care were not adequately addressing the needs of people experiencing homelessness. Since it started in 2008, the practice has grown to employ 40 staff and care for 3000 active patients. Nurses, pharmacists and others have championed change in other organisations (Luz et al. 2019; Shea and Belden 2016).

However, relying too heavily on champions can leave projects vulnerable if they move on or burn out, and can limit the extent to which projects can be scaled up or replicated in other sites. For this reason, champions are more likely to be successful in paving the way for sustained change when they have leadership support and work within organisational structures that are conducive to collaboration (Bunce et al. 2020; Shaw et al. 2012).

Leaders are often ‘in a strong position to champion and implement the system-wide cultural and structural conditions’ for collaborative health care (Begun, White and Mosser 2011, p. 119). Indeed, supportive leadership is often the difference between collaborative projects

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<sup>13</sup> Acuity scores range from basic complexity (a score of 3-4) to good (5-6), fair (7-8), moderate (9-10) and high (11-12). Team care coordinators assess people’s acuity using three types of indicators — clinical, psychosocial and environmental (CHERE 2017).

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that succeed and those that do not. For example, strong executive leadership at RPH was crucial in establishing the Homeless Team (case study 9). Executive support made finding creative solutions to funding and legal issues considerably easier. In contrast, other innovative models have often fallen at similar hurdles without leadership support.

Several strategies can be used to foster leadership support and create collaborative organisational structures, including:

- building an evidence-based case for the value of collaboration to key stakeholders
- establishing formal governance arrangements, which set the direction, roles and responsibilities for collaborative projects
- employing dedicated project managers to oversee the implementation of initiatives
- tracking collaborative performance, which helps to make the case for continued investment in collaboration.

## **Building a case for collaboration**

It takes time to gain the support of potential collaborative partners. Leaders may not immediately see how collaboration assists them to achieve their organisational goals (Hopkins et al. 2021; Nicholson et al. 2018). Some may also be hesitant to start new collaborative projects if their previous efforts failed to secure ongoing funding (an issue known as ‘trial fatigue’).

Even when partners are enthusiastic about collaborating, they need to develop a shared vision and common ways of working before ‘jumping in’. For example, St Vincent’s and Jesuit Social Services share similar values and desired outcomes, but ‘use different languages, different frameworks of care, and have different risk tolerances’ (St. Vincent’s Health Australia, pers. comm., 10 February 2021). When developing a joint project to embed a nurse in a post-prison case management program, St Vincent’s and Jesuit Social Services met regularly in the six months prior to commencing services to develop their relationship and build a common understanding of how the initiative would operate in practice.

While meetings are important for partners to get on the same page, a persuasive case for collaboration can also help partners develop a shared understanding of the purpose, goals and benefits of collaborative projects. Some collaborative initiatives have codified ways to build this case, such as the Geriatric Emergency Department Intervention (GEDI) team, which developed an implementation toolkit as part of a state-wide rollout of a new model of care for frail elderly people (figure 4.2).

Figure 4.2 The toolkit assists the rollout of the GEDI program

**How to GEDI**

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**1. Identify project champions** — an emergency department (ED) physician and clinical nurse consultant with a passion and interest in aged care to champion the GEDI project

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**2. Identify and communicate the need for the GEDI service**

- Assess need using evidence on outcomes for older people presenting to ED at the potential site (including admission and discharge rates, cost of presentation)
- Communicate findings from analysis
- Use evidence from research, such as the GEDI evaluation
- Prepare a business case

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**3. Identify and communicate the benefits** for key stakeholders:

Stakeholder	Benefit
CEO, hospital executives	Cost savings, improved consumer outcomes
Nursing unit manager of ED	Additional expertise in geriatrics in the ED, improved management of older people in the ED
ED managing director	Improved ED flow, lower hospital admission rates, fewer complications of admission, improved consumer outcomes
Geriatricians	Direct admissions, avoiding sub-specialist care, improved consumer outcomes, improved staff and consumer satisfaction
Allied health	Increased early and appropriate referrals

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**4. Set GEDI operational characteristics**

- Determine scope for the GEDI service — inclusion criteria and number of staff based on needs assessment
- Establish governance — should be integrated within ED administrative and governance structures
- Find and train suitable staff

Source: Adapted from Marsden et al. (2017).

The GEDI toolkit outlines approaches to securing the support of a range of stakeholders by demonstrating the need for and benefits of collaboration. The toolkit recommends presenting local data on the size of the problem, using evidence from program evaluations and research on how to address the problem, and developing an implementation plan that brings together different specialties. It also shows how the case for a new project can be tailored to each stakeholder. The toolkit identifies relevant benefits for each stakeholder: for example,

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executives value evidence on cost savings and improved patient outcomes, while allied health professionals want evidence of improved early and appropriate referrals.

## **Good governance makes good intentions concrete**

Governance gives leaders tools to oversee and guide collaborative efforts, and helps participating organisations work together effectively by articulating common goals and setting out roles, responsibilities and decision-making processes. This can make collaborations more resilient by clarifying the commitment to collaboration at the organisational level, independent of specific individuals and relationships. Governance arrangements can also establish processes that contribute to the long-term sustainability of healthcare programs, such as shared planning and decision making, regular evaluation and feedback, and integration of organisational rules and policies (Wiltsey Stirman et al. 2012).

There are many governance models used to deliver healthcare projects. Some are informal arrangements that guide partners with a long history of collaboration, or that are responding to a time-critical issue. For example, WentWest and Western Sydney Local Health District relied on their previous experience delivering projects together rather than establishing new formal governance arrangements for the joint response to COVID-19 given the urgency of the pandemic (case study 8). Other governance models are more formal and establish collaborative decision-making bodies at various organisational levels, regular community engagement and ways to measure shared outcomes (Nicholson, Jackson and Marley 2013). The Collaborative in Melbourne is one such example (case study 10).

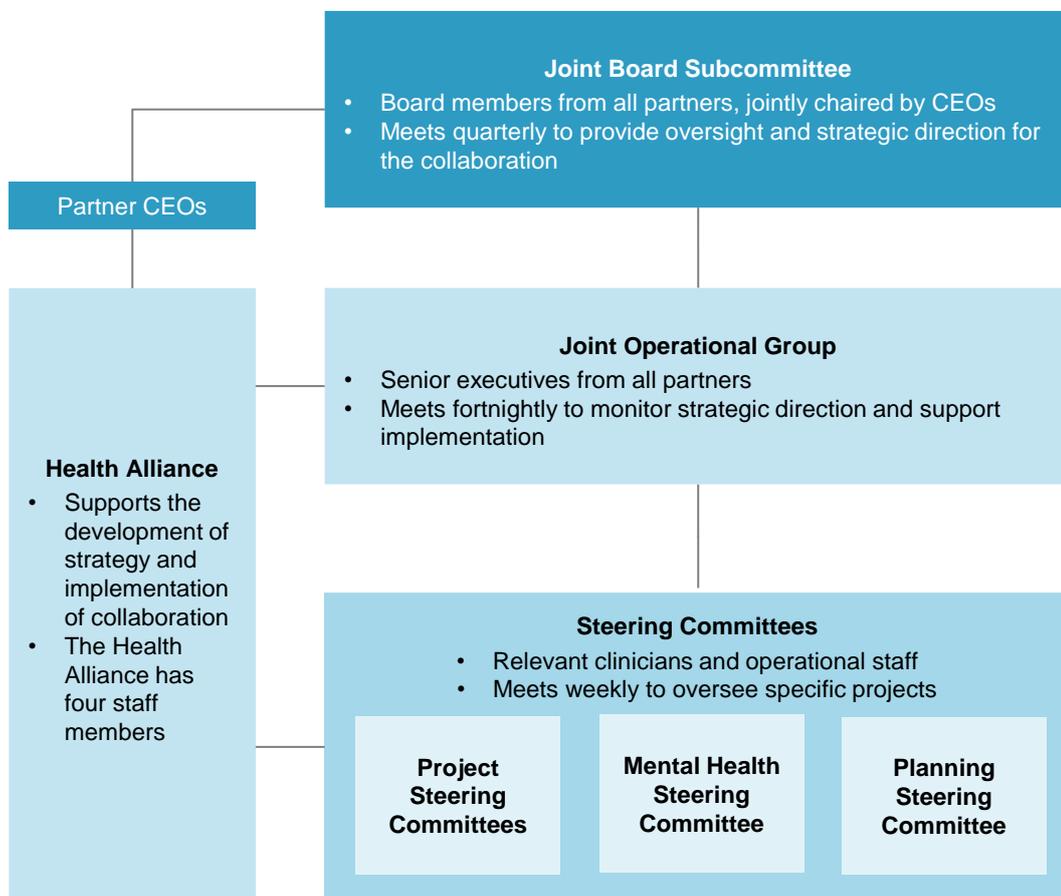
Case study 10	The Collaborative
<p><b>What is The Collaborative?</b></p> 	<p>The Collaborative is a partnership between North Western Melbourne PHN, Royal Melbourne Hospital and two community health service providers (cohealth and Merri Community Health Services). It was established to jointly address chronic disease in inner North and West Melbourne.</p>
<p><b>How was The Collaborative developed and implemented?</b></p>	<p>The Collaborative started in 2012 to improve people’s health outcomes by moving care into primary health and community settings where appropriate. The Chief Executive Officers of all the partnering organisations began meeting regularly to discuss ways of enhancing collaboration.</p> <p>Within a year, The Collaborative had agreed shared goals, priorities, and ways to work together and measure success over the next two to five years. For example, in the first two years, The Collaborative aimed to implement two collaborative projects to address priority areas, establish annual collaborative forums, develop a shared understanding of population health needs, and design a strategic plan and evaluation framework. Within five years, The Collaborative aimed to develop integrated services, conduct an initial evaluation of its projects, scale up successful projects and collect information on consumer satisfaction.</p>
<p><b>What has The Collaborative achieved?</b></p>	<p>In its first five years, The Collaborative worked on projects of common interest between its partners, including diabetes, chronic kidney disease, back pain, regional health and e-health. Through these projects, staff strengthened their understanding of primary and acute care, gained a shared responsibility for consumer outcomes, developed trusting relationships with staff in partner organisations, found opportunities to innovate and improved consumer pathways. Staff believed that the development of clinical pathways, the back pain clinic and the diabetes project would not have been as successful without The Collaborative.</p> <p>The experience gained through these smaller projects allowed The Collaborative to successfully apply for external funding for additional projects in lower back pain and advance care planning. Staff reported that they would have been unlikely to secure government funding for the advanced care planning projects in the absence of The Collaborative.</p> <p>The operation of The Collaborative was evaluated in 2015. The evaluation found that The Collaborative was perceived by staff in all partnering organisations to be an effective platform to support system-level integration efforts, and had increased communication and collaboration (including joint planning and resource sharing) between the organisations.</p>

<p><b>What makes The Collaborative successful?</b></p>	<p>The Collaborative’s governance arrangements have underpinned its sustained success. The partners have developed a framework that outlines the operation of the collaboration. The framework was initially developed in 2012 and was renewed in 2016. It:</p> <ul style="list-style-type: none"> <li>• identifies the roles of the different organisations across the health care continuum, and areas where the organisations’ roles overlap</li> <li>• expresses the shared purpose of the collaboration and foundational principles for the collaboration</li> <li>• establishes the governance structure, comprising: <ul style="list-style-type: none"> <li>– Chief Executives’ Committee — meets bi-monthly to provide formal oversight and authorise or commission joint work</li> <li>– Senior Managers’ Committee — meets bi-monthly to oversee joint planning and track progress against agreed measures of success</li> <li>– Project Committees — oversee specific collaborative projects</li> </ul> </li> <li>• sets out intended outcomes and associated measures of success over two years and five years.</li> </ul> <p>Another key enabler of The Collaborative’s success is its dedicated manager. The manager supports the operation of the governance committees and implementation of collaborative projects, and works to secure the support of new executives and key staff for collaboration.</p>
<p><b>Where to next for The Collaborative?</b></p>	<p>The Collaborative is developing a systemic model to make collaboration a routine part of the work of all partners. This includes designing new treatment pathways to manage chronic conditions based on consumers’ clinical and social risks.</p>

*Sources:* Australian Institute for Primary Care & Ageing (2015); The Collaborative (2015; pers. comm., 24 December 2020).

The joint involvement of clinical and organisational leaders in the governance of health projects is a common feature of successful collaboration. The most effective governance models usually have clinical leaders on sub-committees (which oversee the delivery of key joint projects) and senior leaders from all partnering organisations (executives or board members) on the collaborative board overseeing the sub-committees. For example, the partnership between the Brisbane North PHN and Metro North HHS is governed by a joint board subcommittee (Metro North HHS and Brisbane North PHN 2015; figure 4.3). The board’s strategic work is complemented by a joint operational group, consisting of senior executives of both organisations, as well as the general manager of the Health Alliance (discussed below). Implementation of projects is overseen by staff-level steering committees, comprising relevant clinicians and operational staff.

Figure 4.3 An example of collaborative governance<sup>a</sup>



<sup>a</sup> There are separate Steering Committees for each project, including GPs with Special Interest, GP Liaison Officers, HealthPathways, My Health Record, older people and disease-specific projects.

Source: Metro North HHS and Brisbane North PHN (2015).

These governance models are effective because they support collaboration at many levels of the partnering organisations. Collaborative projects are less likely to lose momentum when staff at different levels are engaged and invested in the outcome — even if a ‘champion of change’ leaves, collaboration is likely to continue. Staff who are directly involved in the joint governance of collaborative projects may also develop a greater understanding of the skills and potential contribution of other organisations, and the value of collaboration more generally, helping to make collaboration an organisation-wide norm. For this reason, the involvement of clinicians in governance can be particularly valuable, as they can be more sceptical about the value of collaboration given the prevalence of professional silos and other barriers.

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## **Management capability underpins sustainable innovation and collaboration**

Managers can also make collaboration more resilient to changes in partnering organisations. They support leaders in understanding the value of collaboration, developing overarching strategy and making key decisions. They can also monitor progress against key performance indicators, contributing to the development of an evidence base for collaboration. These managers have an understanding of the value, goals and progress of collaborative projects, which they convey to new executives and key staff to maintain organisational enthusiasm and commitment to collaboration. And they can support the work of the governance bodies by helping committee members prepare meeting agendas and background papers to focus board discussions on collaborative projects.

Some partnerships have jointly appointed collaborative managers. For example, the Health Alliance (established by Metro North HHS and Brisbane North PHN to support their collaborative work) and The Collaborative (case study 10) employ dedicated managers who implement collaborative projects and support partnership leaders (Health Alliance 2020a, 2020b; The Collaborative 2015).

Other collaborations do not have enough resources to employ a dedicated project manager, but instead train their existing managers to identify opportunities for collaboration and garner support for collaboration by demonstrating its value (Begun, White and Mosser 2011; Miller and Stein 2020). For example, NSW Regional Health Partners have developed an Embedded Economists program to improve the skills of health managers in economic evaluation (Embedded Economist 2020a; NSW Regional Health Partners nd). The program places an economist in a health service for three months, working on projects co-designed with health service managers. This is complemented by formal training for managers in economic evaluation and an ongoing community of practice. These strategies help health managers develop a fuller complement of skills, beyond clinical or human resource skills, that can assist with the implementation of new initiatives. In one instance, an economist embedded in the Hunter New England and Central Coast PHN trained staff on techniques for performing impact assessments and evaluations of several programs, including a workforce upskilling initiative and a new diabetes model of care, and developed an organisation-wide impact assessment framework (Embedded Economist 2020b).

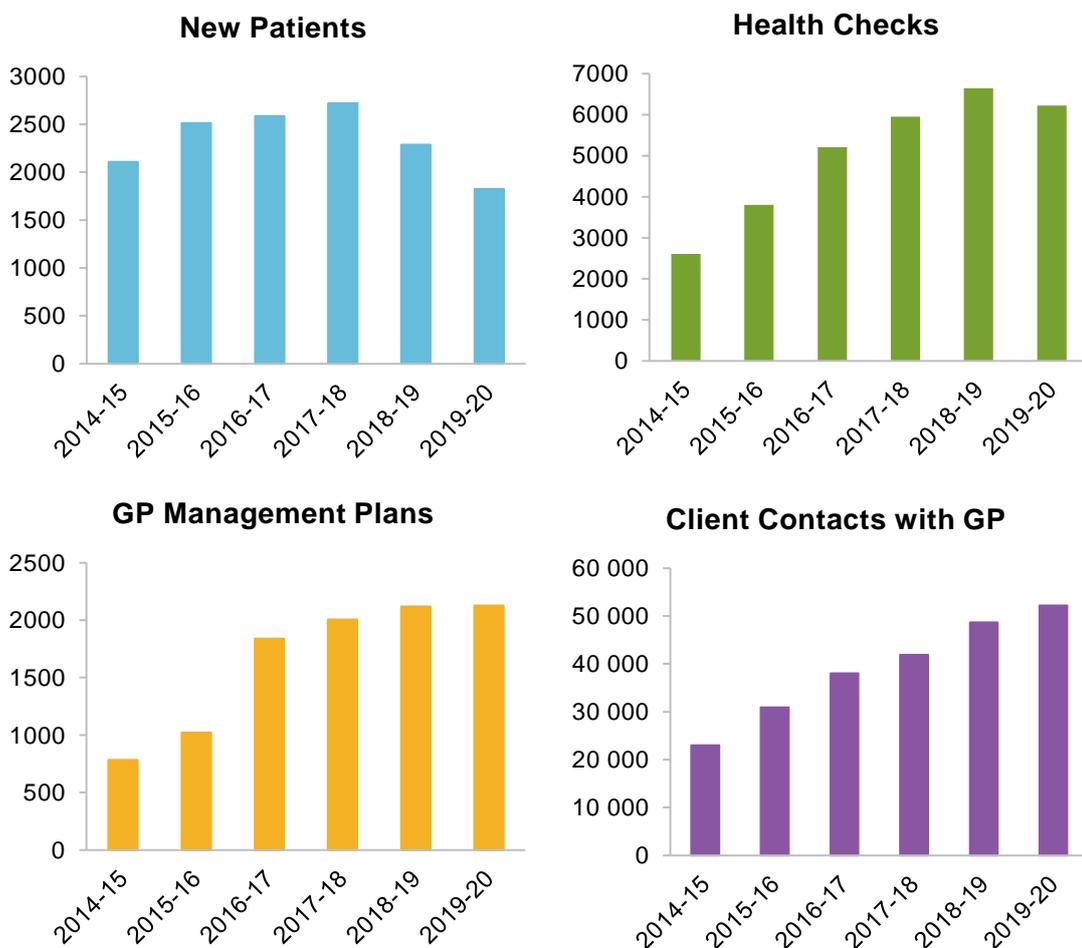
## **Tracking collaboration performance keeps partners engaged**

Another strategy to maintain engagement in collaboration and promote joint accountability for outcomes, is setting joint key performance indicators, monitoring progress and evaluating outcomes. For example, the Brisbane South PHN and Metro South Hospital and Health Service Partnership Protocol sets out performance indicators and expected outcomes, reflecting the organisations' shared vision (Metro South HHS and Brisbane South PHN 2020). The indicators include reduced rates of potentially preventable hospitalisations and emergency department presentation for conditions better managed in the community,

improved patient experience, reductions in outpatient waiting lists, higher immunisation rates, improved coordination of care (including use of digital health records) and partnership performance.

IUIH (case study 15) provides an example of how regular performance assessment can keep stakeholders engaged. Since its establishment in 2009, IUIH has regularly measured key indicators across all collaborating partners. It uses this data to track progress, improve service quality and maintain stakeholder support (Nous Group 2019b). It has published evaluations of its model of care and specific programs to demonstrate the value of the collaboration to external stakeholders, such as funders (Kildea et al. 2019; Mills et al. 2017). IUIH also uses data to enhance accountability to its community, producing regular service report cards that display progress on key areas (Brigg and Curth-Bibb 2017; figure 4.4).

Figure 4.4 IUIH’s report card shows increasing access to health care



Source: IUIH (pers. comm., 4 December 2020).

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Regular tracking and reporting of the outcomes of collaborative projects can also be useful for demonstrating the value of collaboration to new executives. For example, The Collaborative (case study 10) in Melbourne garners the support of new leaders by showing the benefits and opportunities collaboration delivers to each leader's organisation. The Collaborative's manager, along with senior executives from the new leader's organisation, brief the new leader regularly to prepare them for collaborative governance meetings. These briefings are an opportunity for new leaders to get advice on detailed implementation issues and ask questions in a less formal environment than board meetings (The Collaborative, pers. comm., 24 December 2020).

A prerequisite of regularly measuring success is that partnering organisations collect and share data. This process — even for those united by formal funding or other agreements — is not automatic. Real or perceived privacy barriers can affect information sharing, especially with non-health partners (PC 2017a; Richardson and Asthana 2006). For example, both legal and health professionals have strong norms and legal requirements to preserve client confidentiality. This can make it difficult to link data to measure the success of health justice partnerships, which help people attending health services receive legal assistance (Health Justice Australia 2018). And in some cases, the relevant data may not be collected by any organisation. This is a barrier to many collaborative projects' sustainability, although some initiatives have found innovative ways to overcome these issues (chapter 5).

### **4.3 Using opportunities to fund collaboration**

Collaboration tend to be more effective when all partners make a material contribution to the joint work. The contributions are often financial, but can take other forms — for example, an organisation with strong ties to its community, such as a PHN or ACCHS, may contribute local knowledge and connections to key stakeholders. In either case, mutual contributions demonstrate that each partner is committed to the collaboration and invested in its outcome. It gives them leverage to influence the direction of the collaboration and increases the scale and potential impact of the collaborative project.

Collaborative Commissioning (case study 16) is one model for funding collaborative projects through contributions from multiple parties. Under this model, PHNs and local health districts in New South Wales form partnerships and pool funding to address joint health priorities, such as improving care provided in the community for people with chronic conditions. The partners jointly design, govern and report on projects, share risks and financial benefits, and receive guidance from NSW Health.

But in other cases, organisations may not have enough resources to make a sufficient contribution. Indeed, many promising collaborative projects are stymied by financial constraints (Busetto et al. nd; Mitchell et al. 2015).<sup>14</sup> There are various funding constraints

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<sup>14</sup> Although integrated funding is not a panacea: differences in culture, performance frameworks, priorities, governance and information sharing can still impede collaboration (Mason et al. 2015).

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that hamper collaboration within teams and between organisations, including insufficient incentives for collaborative activities in activity-based funding models, a lack of resources for experimenting with collaboration, and funding silos that prioritise traditional healthcare delivery models. There is an irony here — government funding contracts frequently call for collaboration, but end up inhibiting it through funding models and competitive grants processes based on the performance of individual organisations (PC 2017c, 2020c). Funding is discussed in detail in chapter 6.

Within teams, incentives for clinicians and other workers can limit the amount of time available for collaboration. Although the Medicare Benefits Schedule offers some remuneration to GPs for case conferencing and team care, uptake is limited due to the way the payments are designed — for example, rebates are not available to other health professionals who may be involved in team care (MBS Review Taskforce 2020). This can act as a disincentive to collaboration if practitioners are not adequately paid for time spent in meetings or while developing referral networks. Such tasks may be neglected as providers prioritise remunerated activities.

Funding issues can also stymie attempts to develop joint ventures between organisations. Without funding or in-kind contributions from all participating organisations, collaboration can struggle to survive long enough, or achieve the scale necessary, to demonstrate a return on investment for all partners. But organisations can find it difficult to justify investing in collaborative projects without this demonstrated benefit, especially as they can be seen as risky and superfluous to an organisation’s core activities. As one stakeholder put it, when budgets are tight, collaborative projects tend to be ‘first on the chopping block’.

Some organisations, such as The Collaborative, have made use of flexible funding sources to support collaboration, but these opportunities are limited (case study 10). Funding is often tied to specific activities or key performance indicators, which may be incompatible with collaboration (Nicholson et al. 2018). For example, one health promotion partnership felt pressure from funders to show immediate measurable results, which led the partners to focus almost exclusively on their core business (where they had a history of demonstrating value) rather than on new collaborative activities (Del Fabbro et al. 2016).

Many potential collaborative projects are frustrated by the ‘wrong pocket problem’, where one organisation or sector bears the costs of an initiative, while another reaps the benefits (McCullough 2019). This is particularly common in collaborations between health and non-health providers — health departments can be reluctant to step outside conventional roles and fund community services, even when doing so may reduce hospitalisations and improve health outcomes (Baum et al. 2013b; Fisher et al. 2016).

Over the long term, the reforms to health funding discussed in chapter 6 could help to address these issues and facilitate effective collaboration. In the interim, some initiatives have found creative ways to fund collaboration. For example, the IUIH network (case study 15) sources more than 65 grants from health and other government agencies to provide holistic care (IUIH, pers. comm., 3 January 2021). And The Collaborative uses contributions from each partner, as well as other flexible funding opportunities, to deliver joint projects (box 4.2).

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## Box 4.2      **The Collaborative's partners have skin in the game**

From its inception, The Collaborative (case study 10) has received financial support from each of its partner organisations. Each partner has access to different funding sources to contribute to The Collaborative. All four organisations also provide in-kind contributions. For example, The Collaborative is drawing on a range of resources to establish risk-stratified treatment pathways for chronic conditions.

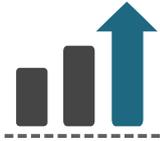
- North Western Melbourne PHN is developing resources and training for GPs on the use of the treatment pathways.
- Royal Melbourne Hospital provides access to its Hospital in the Home, virtual hospital and the Hospital Admission Risk Program, which provide assessment, integrated care planning, education and monitoring.
- The community healthcare providers employ care navigators to provide social prescribing services and link consumers to community and primary health care.

Financial or in-kind contributions need not be equal, as each partner has a different capacity to contribute. But a material contribution from each organisation shows a commitment to collaboration and gives each organisation a tangible stake in the outcomes.

*Sources:* Australian Institute for Primary Care and Ageing (2015); The Collaborative (pers. comm., 24 December 2020).

These funding workarounds highlight a central theme of this chapter — collaboration does not occur spontaneously. Sustainable collaboration requires commitment and supporting institutional structures. Whether these are relatively informal (such as regular meetings or placing key workers in visible parts of a hospital) or more formal structures (such as clear governance arrangements), collaboration needs to be carefully designed and executed to become sustainable.

## 5 Improving the flow and use of information across the health system

<p><b>Key problems</b></p>	<p>Poor collection, sharing and linkage of consumer data restricts information flows in the healthcare system. This can limit health practitioners' ability to provide personalised care for consumers.</p>	
<p><b>Examples of initiatives that address the problems</b></p>	<p><b>Primary Sense</b> — software that provides GPs with information on the health trends and risk status of their patients, allowing them to tailor their care to people's needs.</p>	
	<p><b>Chronic Conditions Management Model</b> — a data tool that give GPs information on the health of people attending clinics in the Northern Territory, where the prevalence of chronic conditions is high.</p>	
	<p><b>Smart Referrals</b> — software for electronic referrals between GPs and specialists that minimises errors and simplifies processes for providers and consumers.</p>	
	<p><b>Lumos</b> — a linked dataset connecting primary, ambulance and acute care data, which provides a bird's-eye view of the consumer journey through the health system.</p>	
<p><b>Key findings</b></p>	<ul style="list-style-type: none"> <li>• Technical solutions can help enable the flow and use of information, but are insufficient on their own.</li> <li>• Strong relationships and trust are key to improving information flows to better manage chronic conditions.</li> <li>• Highlighting the value of high-quality data to health practitioners, consumers and governments can make positive changes to the culture and attitudes regarding the role of data in managing chronic conditions.</li> <li>• Better information flows can be achieved while maintaining legislative privacy requirements.</li> </ul>	

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Data collection and management in the Australian health system does not fully capitalise on the potential value of data use, with adverse consequences for individuals and the system as a whole. While individual healthcare providers collect and use parts of a person's health information, the information is not used to improve the overall quality, accessibility and convenience of health services.

Information flows often involve printed or faxed referral letters, and paper prescriptions people need to take with them from their general practitioner's (GP's) office to a specialist clinic or pharmacy. And information is commonly incomplete, with health professionals at times not knowing people's diagnoses and medication. This can result in poor clinical handovers, inadequate treatment and repeated requests for information. People often have to repeat their story, as the system relies on the consumer's own memory of their medical history rather than having that history securely captured and shared between relevant healthcare providers. These practices are not just inconvenient, but can lead to inefficient healthcare expenditure and poor health outcomes, particularly for people with chronic conditions who frequently interact with a variety of areas in the healthcare system.

Notwithstanding these difficulties, there has been progress in the way health services use data. For example, some clinicians are using data to help manage prescriptions and referrals, and identify gaps and overlaps in consumer care. Better information is also helping with system planning, such as by identifying frequent users of hospital services who could receive more appropriate care in the community. And there are promising new digital technologies that use data to improve health care (box 5.1).

#### **Box 5.1 Better data systems enable new health technologies**

The use of digital technologies to enhance the accessibility and convenience of health care lags behind the developments that are transforming other industries (ADHA 2018; PC 2017d), but is improving. Large datasets are enabling new technologies such as artificial intelligence (AI) and machine learning, which are 'helping medicine to evolve from a clinical science supported by data to a data science supported by clinicians' (Spence 2019; The Economist 2020).

Incipient applications of these technologies can enhance consumer care and self-management, and target healthcare services to where they are most needed and valued. Examples include:

- PainChek — an Australian application that uses AI and facial recognition technology to monitor pain levels and how pain responds to treatment. The app is useful for people who are unable to speak or clearly communicate their symptoms, such as people with dementia (Painchek nd)
- Activate TKR — a wearable activity tracker that sends self-reported and sensor-gathered data to people undergoing total knee replacements and their care teams. The data assists in designing personalised care plans. People also receive physiotherapy programs and educational content at critical points during their recovery (Freyne et al. 2018)
- CareMonitor — an IT platform that improves shared care planning by giving clinicians access to population health management and dashboard reporting information, real-time remote monitoring, workflow management and consumer engagement (CareMonitor nd)

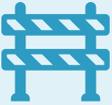
(continued next page)

**Box 5.1** (continued)

- **Mother** — an application that helps women with gestational diabetes, and their treating clinicians, to better monitor and track the condition. Developed by the Commonwealth Scientific and Industrial Research Organisation’s (CSIRO’s) Australian e-health Research Centre and Queensland’s Redland Hospital, the application captures information on blood sugar levels, blood pressure, weight, diet and exercise. This information is sent to the treating clinician, allowing them to monitor the consumer’s progress in real time and intervene if required — such as by giving specific, immediate advice if blood sugar levels have changed too much (CSIRO 2020).

There are many reasons why data collection and use in the health system are not realising their potential (section 5.1). Technological barriers are difficult to overcome, some clinicians are slow to adopt new data practices, and individuals may be wary about health services collecting their data. However, initiatives have shown that improvements in healthcare data practices are possible (figure 5.1).

**Figure 5.1 Overcoming barriers to using data in the healthcare system**

<p><b>Barriers to better data use</b> (section 5.1)</p>	<ul style="list-style-type: none"> <li>• Clinicians are time constrained and many use outdated information sharing technologies</li> <li>• Clinicians may be wary of how their data is used</li> <li>• Consumers may not trust data collectors to preserve their privacy</li> <li>• Inconsistent governance arrangements are leading to data silos</li> </ul>	
<p><b>Improving primary care data collection</b> (section 5.2)</p>	<ul style="list-style-type: none"> <li>• Data collection systems need to be easy for clinicians to use</li> <li>• The data clinicians collect should help them to improve consumer care</li> <li>• Strong relationships between data project managers, clinicians and consumers increase the use of data</li> <li>• Secure technology and trust are key to upholding privacy</li> </ul>	
<p><b>Improving data flows between healthcare sectors</b> (section 5.3)</p>	<ul style="list-style-type: none"> <li>• Data sharing is enhanced when there is collaboration between organisations that hold data and clinicians who use data</li> <li>• User feedback helps to make data sharing systems simple to use</li> </ul>	
<p><b>Data linkage for better system planning</b> (section 5.4)</p>	<ul style="list-style-type: none"> <li>• Data linkage projects need to work closely with stakeholders to build and maintain trust</li> <li>• De-identifying data and storing it on cloud servers minimises risks of data breaches</li> <li>• Project managers need to show stakeholders the benefits of linked data for system planning and service improvements</li> </ul>	

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This chapter presents examples of innovative ways of collecting, sharing and linking data to assist providers in improving the delivery of health services and communicating with consumers. Each of these case studies focus on a different part of the health system, but present common lessons on the importance of IT design, strong relationships and trust in any health data initiative. Primary Sense and the Chronic Conditions Management Model (CCMM) aim to maximise the benefits of the information collected routinely by GPs (section 5.2). The Smart Referrals software connects primary and specialist care providers via data sharing (section 5.3). And Lumos links data across healthcare sectors to enable better system planning (section 5.4).

## 5.1 Barriers to using data in the health system

Data is a critical input into improving care for people with chronic conditions, but there are several barriers to its effective collection, sharing and linking. Providers use outmoded technologies and have limited time to invest in better data practice. They are often concerned about how health data is used and may be unwilling to share their data with others. And there are systemic barriers, such as differences in State and Commonwealth governance arrangements, that make it difficult to coordinate health information across the healthcare system.

Some providers continue to use outdated, inefficient, or insecure data management methods such as paper records. For example, in 2018, 13% of GPs reported that they still used paper records, and only 50% of GPs sent and received clinical information via secure electronic communication (RACGP 2018). Even when clinicians use electronic systems, they are often clunky and not user friendly. For example, in implementing the Health Care Homes trial, practice staff described the shared care planning software as cumbersome, with an inability to auto populate patient information from clinical management systems (AHHA 2020).

It can be difficult for providers to change their behaviour as it takes time for them to develop new data practices. Many clinicians report they are time poor, with about 45% stating that their workload can be excessive (RACGP 2020a). As a result, clinicians may not have the time to develop new ways of collecting and using data, particularly if it involves GPs learning complicated data management processes and technologies.

Providers are often wary of how the data is, or might be, used. They are concerned about privacy regulations and the security of data systems, especially when they are asked to send data to third parties such as insurers (Senate Standing Committee on Community Affairs 2018). In some cases, they may perceive prompts, dashboards and summary statistics as ways to critique their performance rather than as a way to derive more meaningful insights into consumer health (Shaw et al. 2019). For example, a primary health network (PHN) using data to compare consumer health trends across practice populations could be seen by providers as a way to benchmark their performance against others, making them reluctant to send their data to the PHN. However, successful initiatives, such as the CCMM in the Northern Territory, Primary Sense developed by Gold Coast PHN (GCPHN) and Lumos in

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New South Wales show that it is possible to address these concerns and foster provider support.

Likewise, some people may be reluctant to share personal information with healthcare providers and health departments. But trust can be earned through the careful design of clear, robust data governance and collection processes (box 5.2).

### **Box 5.2 Trust helps to allay people's data privacy concerns**

Individuals are often wary about the use of their health data and place a high value on maintaining their privacy. In a survey on Australians' attitudes towards privacy conducted for the Office of the Australian Information Commissioner (OAIC) in early 2020, 60% of respondents were reluctant to provide medical information to any business, organisation or government agency (OAIC 2020).

But people are more comfortable sharing personal information (which may include health information) with health service providers than with government departments, financial institutions, insurers, search engines, social media companies and many other organisations. Indeed, 70% of respondents to the OAIC survey said they were either very or somewhat trusting of health service providers' protection and use of their personal information (OAIC 2020).

People are more willing to share personal information when the need for the information is clear and collection processes are transparent (CHF and NPS MedicineWise 2018). And they have become more comfortable with sharing information since the beginning of COVID-19, as they understand the value of data in the response to the pandemic (OAIC 2020).

Similarly, people prefer to share their data with health professionals, researchers and policy makers when they have given consent for its collection and use. While people prefer to give explicit consent on a case-by-case basis, research suggests that they are becoming more confident about the use of opt-out consent when the importance and use of their data is clear and when they trust the data custodian (CHF and NPS MedicineWise 2018).

The Commission explored privacy, consent and trust in its Data Availability and Use inquiry (PC 2017a). It found that data collectors and custodians need to cultivate and maintain a social licence to build individuals' confidence in sharing their data. To do so, they should:

- share the value derived from the data widely with individuals, community groups, researchers and the public and private sectors
- empower and educate people to exercise control over who holds and uses their data<sup>a</sup>
- build trust by developing safeguards to assure people that their data is being used safely
- be accountable to individuals through data management that is transparent, promotes responsible data stewardship and safeguards privacy and data security.

The Australian Government (2018) is implementing many of the Commission's recommendations, such as creating a Consumer Data Right and appointing a National Data Commissioner to build trust and encourage the use of data. Likewise, the case studies in this chapter have used various ways to build and maintain a social licence, including by engaging regularly with practitioners to build trust, de-identifying data before storing it on secure servers and completing comprehensive privacy impact assessments.

<sup>a</sup> Control differs from ownership. In Australia, data is rarely 'owned' by a single party, but the *Copyright Act 1968* (Cth) protects information and databases if they are original, have a human author and are the result of independent intellectual effort. For example, a doctor holds the copyright over medical consultation notes they created.

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Inconsistencies in Commonwealth and State governance arrangements create additional barriers to improving the flow of information across the health system. State and Territory governments have developed their own policies to guide the collection and use of data, and different hospitals use different data management systems. This has resulted in information being collected in silos, which limit the ability to share information electronically between the primary and acute care sectors (Swerissen and Duckett 2018). Many of the IT systems that GPs use are not interoperable with hospital IT systems, limiting communication and information sharing between these two sectors. For example, only about 40% of GPs say that they are notified when a patient is seen in an emergency department or admitted to a hospital, and only 24% of GPs say they receive discharge information within 48 hours of discharge (Doty et al. 2019). In part, this lack of interoperability has slowed the uptake of large scale data collection projects such as My Health Record (MHR) (box 5.3).

The Australian, State and Territory governments are working together to develop data frameworks that aim to overcome these barriers. For example, the Addendum to the National Health Reform Agreement 2020–25 (COAG 2020) aspires to improve access to data, and the National Digital Health Strategy (ADHA 2018) has an objective to increase the use of data by 2022 to improve the efficiency, availability and quality of health services. But in the meantime, the case studies presented in this chapter show that local efforts can go some way to improve the collection and use of data — sometimes with unique solutions, but often with principles that can be replicated in different conditions.

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### Box 5.3      **The rollout of My Health Record has important lessons**

The Australian Government introduced My Health Record (MHR) in July 2012 to develop an electronic health record for all Australians. MHR summarises an individual's health information from:

- healthcare providers — health summaries, hospital discharge summaries, pathology and diagnostic imaging reports, medications and referral letters
- repository operators — Medicare data, Pharmaceutical Benefits Scheme/Repatriation Pharmaceutical Benefits Scheme data, Australian Organ Donor Register decisions and Australian Immunisation Register data
- individuals — such as contact numbers, emergency contact details and advance care plans (ANAO 2019).

This initiative is expected to generate \$14.59 billion in economic benefits between 2007 and 2027 through improvements in health outcomes, healthcare efficiency, person-centred care and innovation in the health system (ANAO 2019).

Providers were initially slow to take up MHR, but there are indications that usage is increasing. For example, in January 2021, there were more than 2.6 billion documents uploaded into MHR and 86% of GPs were uploading and viewing them, up from 73% a year earlier (ADHA 2020, 2021).

There are a few reasons for the slow take up of MHR.

- Not all clinicians were well prepared for the implementation of MHR. In 2018, 54% of GPs said they did not feel prepared for the anticipated expansion of electronic records as part of the move to an opt-out consent model (RACGP 2018).
- In some instances, MHR was not compatible with popular general practice software, which made MHR difficult to install and use. To increase GP uptake, the Australian Digital Health Agency paid medical software companies to upgrade their products so they could be used with MHR (McCauley 2019).
- Low usage throughout the healthcare system reduced the incentive for individual clinicians to use MHR. For example, patchy usage by GPs meant that hospital staff saw little value in using MHR and vice versa. One GP reported that in the first five years 'it was a chicken-and-egg thing — you won't use it because there's nothing there, and nothing is there because people weren't using it' (Hendrie 2019).
- People were slow to opt-in to MHR and the majority of the records were created after the consent processes changed from voluntary 'opt-in' to 'opt-out' on 31 January 2019. For example, there were almost 6 million records by July 2018 compared with about 23 million in January 2021 (ADHA 2021). About 2.5 million Australians had opted-out by late January 2019 (Senate Standing Committee on Community Affairs 2019).

## **5.2      Making the most of consumer information within primary care**

Primary care is often a person's first point of contact with the healthcare system. Australians visit a GP an average of about six times a year (Hendrie 2018) and half of all GP visits

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involve people with two or more chronic conditions (Harrison et al. 2017). During these visits, GPs and other practice staff record data on people’s health status and treatment plans, which can be used to improve the management of chronic illness. The improvements could range from providing more personalised care to supporting practice- and system-level planning. For example, researchers in Adelaide used GP-held electronic medical records to identify people with multiple chronic conditions and ask them to participate in a self-management support program. Participants in the program reported better health outcomes than people who just received information about their conditions (Reed et al. 2018).

Efforts are underway to improve the collection and use of primary care data. For example, the Australian Government provides general practices with incentive payments for improving their data collection (box 5.4).

**Box 5.4      Incentive payments can promote better data collection – but are they always necessary?**

Incentive payments can provide some impetus for clinicians to collect better data. For example the Australian Government’s Practice Incentives Program Quality Improvement (PIP QI) Incentive provides payments to general practices that collect and submit data on specific key performance indicators (KPIs) to their local primary health network (PHN) (chapter 6). Practices can receive up to \$50 000 per year in incentive payments (DoH 2019e). The Australian Government has set a target of 95% of eligible practices to use the PIP QI by 2023-24; and 68% of practices already voluntarily share data with PHNs for quality improvement and population health purposes (DoH 2019d, 2020c).

Payments of this type need to be salient to encourage clinicians to change their behaviour and be large enough to compensate clinicians for the time and cost of learning new ways of working and investing in new processes. For example, if payments are made directly to practice owners, employees, including clinicians, may have little financial incentive to improve their data collection processes, particularly if they have to train outside of work hours to learn new skills.

That said, policy makers need to assess when incentive payments are appropriate. Some of the innovative initiatives discussed in this report were implemented without incentive payments. Instead, these initiatives secured clinicians’ support by emphasising the potential to streamline GPs’ workflow and enable them to provide better care. Further, relying on incentive payments as a default mechanism for quality improvements may not encourage the proactive culture of improvement that is often required to sustain data collection efforts.

Other local initiatives are encouraging clinicians to appreciate the benefits of better data (case studies 11 and 12). While Primary Sense and the CCMM have been designed for their local communities and their operating context — for example, the CCMM services a population of limited size within a (largely) publicly run primary care sector — they both provide a number of more widely applicable lessons. They show that data systems can significantly improve population health and system-wide outcomes if they:

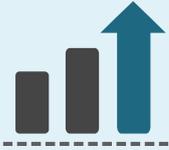
- are simple, user-friendly and adaptable to the environment in which they operate
- highlight the value of data collection in improving outcomes

- are supported by a robust data collection culture and effective relationships
- account for privacy concerns.

Case study 11	Primary Sense
<p><b>What is Primary Sense?</b></p> 	<p>Primary Sense is a population health management software developed by Gold Coast PHN (GCPHN). It extracts and aggregates data from a GP's computer and provides practices with information on:</p> <ul style="list-style-type: none"> <li>• people at risk of cardiovascular disease, diabetes and hospitalisation within the next 12 months</li> <li>• people with high frailty scores or who use a large proportion of health resources</li> <li>• real-time medication safety alerts and optimal care prompts.</li> </ul>
<p><b>How was Primary Sense developed and implemented?</b></p>	<p>GCPHN developed Primary Sense in response to a Department of Health evaluation of PHNs, which found PHNs' efforts to support quality improvement in practices were resource-intensive and did not take full advantage of digital technologies (Davies 2020; EY 2018). Prior to Primary Sense, there were few systematic or automatic ways to identify people with rising risk of chronic disease or medication safety issues — practices and PHNs had to manually sort and filter data to identify at-risk individuals, which was made even more difficult by the variable quality of practice data.</p> <p>Primary Sense aims to be a cost-effective and scalable model for improving the quality and safety of general practice. It automatically filters practice data and creates prompts for GPs. GPs receive information on at-risk individuals who may be missing interventions, receiving high-risk medications or 'slipping through the gaps' by not attending the practice as regularly as needed. Primary Sense also generates reports that can be used by practice managers, nurses and GPs in developing treatment plans. And the initiative improves the quality of practice data, as GCPHN can identify common data recording issues and support practices in remedying them.</p> <p>GCPHN worked with experts and local GPs to develop the software. It incorporates the Johns Hopkins' Adjusted Clinical Group population health and risk stratification tool, which predicts healthcare utilisation based on population and individual risk factors. The granular data it collects has helped the PHN to identify at-risk groups and plan services across the city.</p> <p>Primary Sense received GCPHN's Practice Improvement and Innovation funding.</p>

<p><b>What has Primary Sense achieved?</b></p>	<p>Primary Sense has been installed in 83 general practices, servicing 620 000 Gold Coast residents — almost 90% of the region’s population.</p> <p>While it has only been in operation since 2019, it is already improving service quality and has led to behavioural change by GPs, practice managers and nurses. For example: in 2019-20, Primary Sense helped pick up potential medication errors — 56% of GPs who use Primary Sense received at least one medication safety alert.</p>
<p><b>What makes Primary Sense successful?</b></p>	<p>Key factors that have contributed to the success of Primary Sense include:</p> <ul style="list-style-type: none"> <li>• its ease of use — Primary Sense works seamlessly with general practice software (meaning no double entry of data is needed) requiring little, if any, training to use. During the test phase, most GPs were able to use Primary Sense intuitively and incorporate it easily into their workflow. For example, GPs received electronic notifications about people with heightened risk in the same way that they received pathology results</li> <li>• the real-time medication safety alerts, which appeared at the point of prescription, were highly valued by GPs</li> <li>• clear reports, which include information on the tests and activities that would be beneficial during an individual’s next appointment. This information is particularly useful for practice managers and nurses, and was used during clinical meetings and to reach out to people who missed important interventions</li> <li>• the granularity of data, which has not only increased practices’ ability to provide care based on an individual’s risk, but has also assisted GCPHN in supporting practice improvement. For example, GCPHN used the data to identify data items that were routinely recorded inconsistently (like birth weight) and was then able to precisely guide practices in recording consumer information reliably and consistently.</li> </ul>
<p><b>Where to next for Primary Sense?</b></p>	<p>Primary Sense is being commercialised for use by other PHNs. The team is also working with governments to further develop the tool, noting the potential benefits to national data collection, and hospital, population health and emergency planning.</p>

Sources: Davies (2020); GCPHN (2020c, 2020a; pers. comm., 18 January 2021).

Case study 12	Chronic Conditions Management Model
<p><b>What is the Chronic Conditions Management Model (CCMM)?</b></p> 	<p>Rates of chronic illness in the Northern Territory are high, particularly for Aboriginal and Torres Strait Islander communities whose age-standardised mortality rates for chronic diseases far exceed other communities (AIHW 2020a; Zhang and Zhao 2021). It can be challenging to provide health services in the Northern Territory given the highly dispersed, mobile and disadvantaged population; language and cultural barriers; and high workforce turnover (PC 2020b).</p> <p>It is within this environment that a small group of GPs, nurses and analysts in the Northern Territory Department of Health (NT Health) worked with the primary care sector to set up the Chronic Conditions Management Model (CCMM). The CCMM was designed to improve prevention, early detection and management of chronic conditions in remote Aboriginal communities.</p>
<p><b>How was the CCMM developed and implemented?</b></p>	<p>The CCMM began in 2012 through the work of a single GP who started collecting primary care data. In 2019, the team received NT Health funding to expand and employ a data analyst.</p> <p>The CCMM collects consumer data from all 50 health centres and five correctional facilities managed by NT Health (for a population of about 28 000). Consumer data is collected from the electronic health record and uploaded nightly to a centralised data warehouse managed by NT Health. Data is then extracted, cleaned and turned into automated reports for the prevention and management of chronic conditions.</p> <p>NT Health sends four types of reports to each clinical site. These include:</p> <ul style="list-style-type: none"> <li>• weekly 'Recall List' for clinicians that identifies people who are overdue for care in accordance with their care plans and risk factors</li> <li>• weekly 'Full List' for clinicians detailing chronic conditions diagnoses, pathology results, key risk factors, examination findings and care plans</li> <li>• quarterly 'Traffic Light Report' for clinicians and practice managers that compares service performance against chronic conditions program targets and chronic disease key performance indicators</li> <li>• quarterly 'Trend Reports' for clinicians and practice managers of service performance benchmarked against regional and territory-wide service performance over the past three years. This provides system-wide health trends in the NT, allowing clinicians and practice managers to identify problem areas or disseminate best-practice lessons.</li> </ul>

<p><b>What has the CCMM achieved?</b></p>	<p>The CCMM has contributed to:</p> <ul style="list-style-type: none"> <li>• steady and incremental improvements to care processes for chronic conditions</li> <li>• targeted allocation of scarce resources</li> <li>• practices using evidence to improve care</li> <li>• fostering a team-based culture of evidence-based decision making.</li> </ul> <p>These have led to improvements in consumer outcomes. For example, since the CCMM commenced in 2012, population coverage of cardiovascular risk assessment improved from 26% to 64.4% in November 2020. Over the same period, the formerly rapid growth in preventable hospitalisations for chronic conditions has plateaued (Zhang and Zhao 2021).</p>
<p><b>What makes the CCMM successful?</b></p>	<ul style="list-style-type: none"> <li>• Participation in the CCMM is the default position for all NT Health clinics, as part of their culture of continuous improvement.</li> <li>• The management team cultivated relationships with general practices to ensure the CCMM was delivering value and fostering a culture of constructive feedback.</li> <li>• The reports are designed by clinicians for clinicians, and distributed automatically. They are simple and user-friendly, which encourages practitioners to collect and use data. It also means practitioners need little training to use the reports.</li> <li>• The CCMM highlights the value of better data collection to practitioners by providing dashboards and summary statistics. Feedback and suggestions for further improvement are actively encouraged.</li> <li>• The trend reports have harnessed the internal motivation of clinical teams to compare themselves to other practices across the Northern Territory and lift their performance.</li> </ul>
<p><b>Where to next for the CCMM?</b></p>	<ul style="list-style-type: none"> <li>• Increasing the Traffic Light Report to weekly and Trend Report to monthly.</li> <li>• Reporting on more chronic conditions, medication use, child health, influenza vaccination and COVID-19 surveillance.</li> <li>• Increasing modelling sophistication, such as by taking into account the variations in hospitalisation risks between different communities.</li> <li>• Integrating data from the acute care sector.</li> <li>• Using the CCMM to improve integrated care initiatives and care coordination for people with complex chronic conditions.</li> </ul>

Sources: Burgess (2015); NT Health (pers. comm., 15 February 2021).

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## Simple and secure software is key to extracting lessons from data

Primary Sense and the CCMM are examples of the virtue of simplicity. Neither tool requires much time or training to use. For instance, Primary Sense fits in with the GP's workflow, and most clinicians are able to use the software almost immediately once it is installed (Davies 2020). From the clinician's perspective, the software is also easy to update and maintain (as Primary Sense does not integrate with, or write to, the GP's practice database).

Similarly, many of the CCMM reports are based on spreadsheets, such as the 'Full List,' which lists the entire practice population, their chronic illness diagnoses, pathology results, medications and key dates for chronic care plans. Practice staff can quickly filter the practice population to identify at-risk patients. For example, health staff can readily identify all their diabetic patients with poor glycaemic control, check if they have had their annual flu vaccination, see how much medication they have picked up in the past 90 days and when they are due for review. This report format is easy to use, understand, and is updated every week. The single electronic health record used in clinics managed by the Northern Territory Department of Health (NT Health) also allows data to be standardised across the region, which is useful for drawing insights about population health trends and benchmarking performance (NT Health, pers. comm., 16 February 2021).

Both Primary Sense and the CCMM allow clinicians to easily identify at-risk people at the point of care. In the case of Primary Sense, real-time medication alerts are concise and informative, and have actively been incorporated into GPs' workflows. On average, GPs:

- agreed with the alert and acted 30% of the time
- disagreed with the alert 5% of the time
- asked to be reminded again 20% of the time
- agreed with the alert 30% of the time, but overrode it due to other clinical reasons
- ignored the alert 15% of the time (GCPHN, pers. comm., 18 January 2021).

For higher risk cases, Primary Sense sends messages straight to the GP's inbox (Davies 2020). Likewise, the CCMM flags people with higher risks, and notes what type of care they have (and have not yet) received, to make it easier for clinicians to tailor their care.

These initiatives use data collection methods that are adapted and responsive to the changing needs of their local populations. In the case of the Northern Territory, the disadvantaged and mobile community requires information to be easily transferred across systems and geography. As a single electronic health record is used in all clinics managed by NT Health, enrolment and data transfer accompany consumers if they move to another clinic (NT Health, pers. comm., 25 January 2021). Similarly, Primary Sense's high-quality information and widespread use among Gold Coast general practices assisted in the PHN's quick response to COVID-19, where consumer data was used to establish COVID-19 clinics based on the distribution of people with comorbidities, rather than merely the size of the population (GCPHN, pers. comm., 15 February 2021).

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## Stakeholders value the lessons derived from the data

Demonstrating the value of primary care data can encourage practices to focus on improving their collection processes (Youens et al. 2020). Our case studies have used various strategies to highlight the benefits of better data collection. For instance, the granularity of Primary Sense's data enables the team to identify specific patchy data collection practices and alert PHNs. This assists PHNs in tailoring quality improvement efforts to particular issues such as practices' incorrectly recording birthweight (Davies 2020).

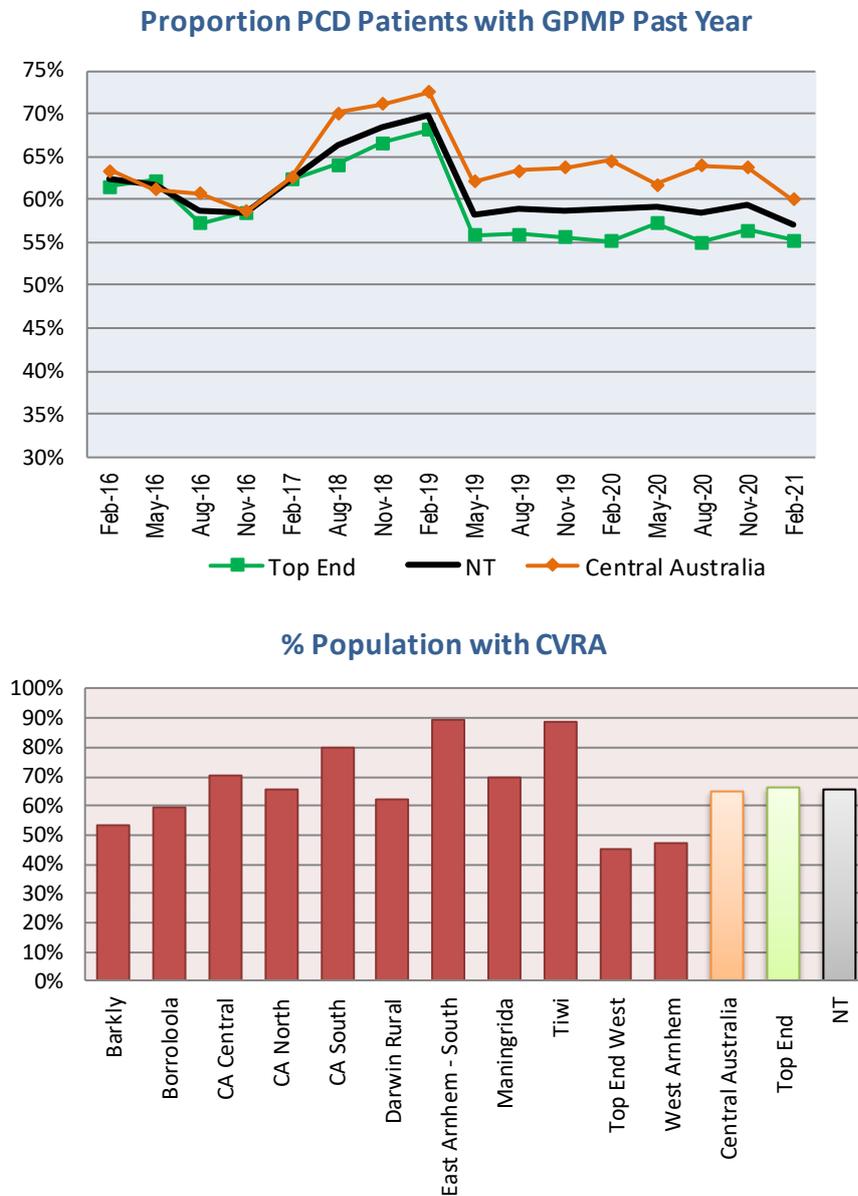
Presenting information on key health trends is another way that these initiatives have showed the value of primary care data collections. CCMM and Primary Sense produce summary reports and visual dashboards to better inform clinicians about their practice populations. Practice staff using Primary Sense note that the reports are useful — highlighting for example, follow-up activities that could occur during the patient's next visit. Further, these reports are used to inform clinical meetings and to recall people who have missed appointments and are not following their care plans (Davies 2020).

These types of initiatives have also been used to help practices understand their quality relative to their peers (figure 5.2). CCMM produces reports on the relative clinical performance of practices to encourage service improvement. Information on relative performance can motivate practitioners to achieve and maintain high standards of care, and can be an effective way of overcoming clinicians' inertia and reluctance to change their behaviour (PC 2016; Shaw et al. 2019).

However, the use of benchmarking in this way requires a cautious approach so that no one feels that they are being 'named and shamed'. To foster collaborative use of data, NT Health hosts regular meetings to discuss how to interpret and use the information provided by the reports generated by the CCMM. These discussions create a co-operative culture focused on the goal of improving people's health outcomes in the Northern Territory (discussed below and in chapter 4).

Increasing GPs' appreciation of their data boosts their engagement with data projects and improves the quality of the data they collect. In the Northern Territory, the CCMM team saw a marked improvement in the quality of data as clinicians' understanding and use of the CCMM reports increased (NT Health, pers. comm., 25 January 2021). Likewise, the high take-up rate of Primary Sense indicates that clinicians value the data-driven insights into people's health and service improvement. In both cases, the high usage rates also demonstrate that clinicians will use data (and collect better data) when they have tools that are easy to use and produce meaningful results.

Figure 5.2 What the GP sees: an example of NT Health's reports<sup>a,b</sup>



<sup>a</sup> The above charts are exact copies of what NT Health presents to GPs. <sup>b</sup> PCD = preventable chronic disease, GPMP = GP Management Plan, CVRA = cardiovascular risk assessment.

Source: NT Health (pers. comm., 25 January 2021).

### Building relationships is key

CCMM and Primary Sense invest much time and effort in building trust by working closely and regularly with practitioners. CCMM staff are experienced population health and primary care workers who can speak the same ‘language’ as GPs. This helps CCMM to convey its

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expertise and build confidence in its data collection and reports. This common background makes it easier for NT Health centres to provide continuous feedback on what is and is not working (NT Health, pers. comm., 25 January 2021).

Similarly, Primary Sense drew on its existing relationships with local experts and national clinical leaders to inform the design and development of the software (GCPHN 2020a). In rolling out the software to general practices, some GPs became vocal proponents. Primary Sense made the software more attractive to general practices by responding to feedback and users' needs. Practitioners can give feedback directly using the prompts and medication alerts they interact with regularly. In addition, Primary Sense invested in support teams to contact practices with low usage to see if they had any issues (GCPHN, pers. comm., 18 January 2021). Chapter 4 discusses how to build meaningful relationships in more detail.

## **Privacy concerns can be addressed**

Practitioners need to be confident that the data they collect is secure and that individual privacy is maintained. Technological solutions are important for storing data securely, but practitioners — and the people they collect data from — need to have trust in health data initiatives.

Both Primary Sense and the CCMM use various techniques to address privacy concerns and instil trust in clinicians and individuals. Primary Sense helps address privacy concerns by holding all consumer data in secure cloud storage systems and de-identifying before it leaves the practice (GCPHN 2020b). This security is key in fostering clinicians' and individuals' confidence in the data collection process, allowing for better quality data to be collected and analysed.

While the Primary Sense team do not seek consent directly from individuals, the information and data sharing agreements they have with GP practices encourage practices to discuss privacy and data sharing with their clients. The team also gives practices posters and information leaflets, as well as quality improvement toolkits, to increase public awareness of the implications of consenting to the sharing of their data (GCPHN, pers. comm., 18 January 2021). Further, individuals can view online information on how GCPHN will collect, store, access, use, secure and delete data (GCPHN 2020d).

In the case of CCMM, the team adheres to existing privacy regulations such as the *Information Act 2002* (NT), which requires NT Health-managed health centres to take reasonable steps to ensure people are aware of the collection and use of their data (NT Health 2020). Further, the CCMM team also uses health data governance principles that were developed in consultation with Aboriginal and Torres Strait Islander communities (NT Health, pers. comm., 25 January 2021). One such principle is keeping data de-identified as much as possible. Only the treating clinician has access to reports that identify consumers to minimise the risk of privacy breaches and to enable the data to be used to improve service delivery.

To further manage privacy concerns, NT Health built good relationships and trust with practices and communities. Communities were more willing to allow their data to be

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collected and used once they understood the value of better data. Indeed, only once since the CCMM started in 2012 has a consumer asked for their data to not be collected (NT Health, pers. comm., 25 January 2021).

### **5.3 Improving information flows between primary and acute care**

People benefit when their health information moves with them across the primary and acute care sectors, especially those with chronic conditions, who often see multiple providers. Health services also benefit, through avoiding unnecessary medical procedures and preventing medication errors.

Conversely, poor communication between primary care and acute care practitioners has serious, negative effects on people's health outcomes. For instance, when GPs do not receive hospital discharge summaries, the risk of an individual being readmitted to hospital within seven days increases by 79% (Li et al. 2013). Low-quality discharge communications (that are delayed, unintelligible, lacking detail or inaccurate) have also been shown to have adverse effects on consumer outcomes (Kripalani et al. 2007; Schwarz et al. 2019).

Despite the poor outcomes associated with the lack of communication between the primary and acute care sectors, there is comparatively little sharing of consumer health data between medical professionals in Australia. For example, a 2019 Commonwealth Fund survey found that only 50% of Australian GPs were able to exchange clinical summaries with other doctors electronically, much lower than in other countries such as Norway (where 93% of doctors can do this) (CommFund 2019). Indeed, nearly one in four Australians aged 45 years and over reported inadequate information sharing between the emergency department they visited and their GP or usual place of care in 2016. People in remote areas were more likely to say their GP was not informed of visits to other providers, and people with no usual GP were two to three times more likely to report poor sharing of information as those with a usual GP (AIHW 2020f).

Initiatives are being developed to improve data sharing across the health system. For example, all referrals to public hospital specialists in Queensland are made electronically and can be easily tracked (through Smart Referrals, case study 13). Other initiatives, such as The Viewer, collate data from multiple parts of the health system to enable healthcare professionals to access a client's information quickly, without having to login to different data management systems (box 5.5).

<b>Case study 13</b>	<b>Smart Referrals</b>
<b>What is Smart Referrals?</b> 	<p>Queensland Health’s Smart Referrals uses software to streamline referrals between general practice and specialist services and improve wait times for outpatient services.</p>
<b>How was Smart Referrals developed and implemented?</b>	<p>Smart Referrals was established as part of the Queensland Government’s 2016 Specialist Outpatient Strategy to reduce waiting lists and improve access to specialist services by 2020. The Queensland Government committed \$361.2 million in funding over four years to achieve the strategy. Smart Referrals software:</p> <ul style="list-style-type: none"> <li>• automatically populates basic consumer information, including test results, from the individual’s file in the GP’s practice software</li> <li>• allows GPs to create and submit electronic referrals from existing practice software</li> <li>• provides details of public specialist services and supports referral lodgement</li> <li>• facilitates digital lodgement and tracking referrals across the state.</li> </ul> <p>The software was trialled in Brisbane and the Sunshine Coast in 2018 and gradually rolled out state-wide throughout 2019 and 2020.</p>
<b>What has Smart Referrals achieved?</b>	<p>Prior to Smart Referrals, most of the two million referrals that Queensland health services receive each year were mailed or faxed, rather than sent electronically. Although it is too early to observe how Smart Referrals has changed GP workflow or outpatient wait times, GPs who use the software indicate that they find it easy to use. In particular, GPs report that they appreciate the ease with which they can send and receive information electronically, instead of having to fax documents.</p>
<b>What makes Smart Referrals successful?</b>	<p>Key factors that have contributed to the success of Smart Referrals include:</p> <ul style="list-style-type: none"> <li>• the ease of use of the software, which integrates seamlessly into widely used GP practice management software packages</li> <li>• the seamless receipt, registration and triage of referrals.</li> </ul>
<b>Where to next for Smart Referrals?</b>	<p>Queensland Health plans to enhance Smart Referrals to include real time information on specialist availability and waiting lists.</p>

Sources: Brisbane North PHN (pers. comm., 22 January 2021); Clinical Excellence Queensland (nd); Queensland Health (2016, 2020b).

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**Box 5.5 Providing clinicians with access to consumer health information — The Viewer**

The Viewer (Health Provider Portal) is an online portal that aims to bridge information gaps between the primary and acute care systems. It allows eligible Queensland health practitioners such as nurses, specialists, GPs, paramedics and midwives, to access health records created in public hospitals. These records include: appointment records, radiology and laboratory results, treatment and discharge summaries, demographic and medication details, and an individual's My Health Record. Health practitioners log onto a web portal to obtain access to an individual's real-time health information.

The advantages of using The Viewer include:

- providing quick and easy access to comprehensive consumer information from more than 15 data sources
- reducing time spent locating medical records
- providing access to consumer information stored on systems that may not be available at that facility
- increasing the visibility of speciality information (for example, oncology, cardiology, endoscopy and mental health)
- reducing the need to sign into multiple systems
- improving decision making and reducing risk of medication errors.

The Viewer team works with clinicians to ensure the information is relevant and easy to use. As of December 2017, more than 1550 GPs had signed up (representing 26% of full-time equivalent GPs in Queensland) and there had been 35 800 interactions in the Health Provider Portal.

*Sources:* Clinical Excellence Queensland (2021); Minion (2017); Queensland Health (2019, nd); SCRGSP (2017).

## **Organisations need to work together to design data sharing systems**

Data sharing requires organisations to develop common data collection and transmittal processes. Many of the lessons about successful collaboration in chapter 4 — such as developing meaningful relationships and setting accountable governance arrangements — are relevant for data sharing. The examples in this section show how these lessons apply in the context of health data projects.

For example, the Western Sydney Integrated Care Program — a locally led model of integrated care funded by NSW Health — involved health, consumer and IT partners in the design of the care model and data sharing processes. The partners developed a common IT platform and dashboards that enabled primary care and hospital clinicians to jointly care for people with chronic conditions. The IT system was used by primary care and specialist clinicians to provide information and coordinate care. GPs reported that they found the shared IT tools instrumental in supporting them to follow the shared care plans and monitor people's health outcomes (Cheung et al. 2019).

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Close working relationships were also key to the design and delivery of Queensland Health’s 2016 Specialist Outpatient Strategy, which included Smart Referrals and The Viewer (case study 13; box 5.5). The Smart Referrals team worked closely with GPs early in the design process to make data sharing a seamless part of clinicians’ workflow. GP feedback helped develop electronic referral processes that were easy to use and streamlined clinical information sharing — as diagnostic images and supporting documents could be sent electronically rather than by fax or mail (Brisbane North PHN, pers. comm., 22 January 2021).

To further support GPs’ use of Smart Referrals in Brisbane, the Smart Referrals team partnered with Metro North Hospital and Health Service (Metro North HHS) and Brisbane North PHN. Brisbane North PHN employed digital health support officers and used their GP liaison officers to assist with software design, testing, training and support. The digital health officers helped GPs and other practice staff with desktop support for the installation and use of Smart Referrals. The close partnership between the Smart Referrals team, Metro North HHS and Brisbane North PHN has contributed to a high take-up rate among clinicians. By the end of 2020, 85% of eligible clinics in the Brisbane North region had signed up, and 66% of those had completed software installation and user training (Brisbane North PHN, pers. comm., 10 February 2021).

Like the innovative data collection initiatives presented in section 5.2, successful data sharing projects highlight the importance of designing systems that work easily with clinicians’ existing IT systems. They rely on close partnerships between program managers and clinicians to ensure that the software and IT systems become a natural part of clinicians’ workflow and are easy to use.

## **5.4 Better data linkage can offer insights to consumers, practitioners and policy makers**

The linking of primary, community and acute care data enhances system- and local-level care planning, by identifying gaps in people’s care and opportunities for healthcare improvement. Linking involves joining different datasets so that relevant information sits in one dataset (or a reduced number of datasets). This reduces the need to find, gain access to, and manually integrate data from a variety of sources. For example, linked primary care and ambulance data enables policy makers, clinicians and system planners to identify hospitalisation risk factors and better understand how consumers use health services.

Data linking is complex — primary and acute care sectors collect, store and manage data in different ways — and data holders need to work together to overcome technical issues to link different types of data. Beyond these technical issues, linking data also magnifies privacy concerns — as linking makes it easier to identify individuals in the data. However, there are examples of data linking initiatives, such as Lumos (case study 14), that build and maintain the trust of health data custodians and individuals.

Case study 14	Lumos
<p><b>What is Lumos?</b></p> 	<p>Lumos is the largest collaboration between NSW Health and PHNs in New South Wales (NSW). It links consumer data across primary, ambulance, acute care, cancer registry, death registry and notifiable conditions registry data to enhance understanding of the consumer journey through the healthcare system to inform policy and planning.</p>
<p><b>How was Lumos developed and implemented?</b></p>	<p>NSW Health developed the idea for Lumos when it discovered that some people with chronic conditions were first being identified by the State healthcare system when their health had worsened and they were hospitalised, with little information about their primary care.</p> <p>The purpose of Lumos was to enable better service planning at the system level, with the potential to identify significant gaps in care, particularly through inclusion of primary care information.</p> <p>It started as a four-year pilot in 2016 to assess the feasibility of linking data from general practices to other data across the NSW healthcare sector. During this phase, 40 general practices were involved across four PHNs, covering 400 000 patients. Currently, Lumos is in its scale-up phase, with over 300 practices (representing all 10 PHNs) involved in the program, capturing about two million consumer journeys through the NSW health system.</p>
<p><b>What has Lumos achieved?</b></p>	<p>The richness of the Lumos dataset has provided valuable information, which allows stakeholders to:</p> <ul style="list-style-type: none"> <li>• better understand the positive effects of primary care in reducing readmissions</li> <li>• refine their statistical models. For example, more information on individual characteristics can help identify those people most at risk of developing certain chronic conditions</li> <li>• improve outcomes for people with undiagnosed chronic conditions. For example, Lumos has shown that the risk of hospitalisation for diabetes and chronic kidney disease is halved with early recognition in primary care</li> <li>• identify opportunities to implement data-driven improvements in the planning of system-wide models of care</li> <li>• use innovative and enhanced data analytics in order to extract lessons from health interventions.</li> </ul>

<p><b>What makes Lumos successful?</b></p>	<p>The success of Lumos relies on:</p> <ul style="list-style-type: none"> <li>• developing trusted relationships across the healthcare system by: <ul style="list-style-type: none"> <li>– commencing the pilot in areas where PHNs and Local Health Districts (LHDs) already had mature relationships</li> <li>– meeting regularly with stakeholders and incorporating their feedback on the design</li> </ul> </li> <li>• highlighting the value of data by giving reports to GP practices and PHNs summarising aggregate statistics and by providing visual dashboards outlining the health trends of a practice population. These are sent at least every six months</li> <li>• ensuring rigorous privacy standards are upheld throughout the linking process.</li> </ul>
<p><b>Where to next for Lumos?</b></p>	<ul style="list-style-type: none"> <li>• Lumos is continuing to build stakeholder support especially with LHDs, technology vendors and individuals. This involves conducting targeted interviews and focus groups with stakeholders to determine high-value uses of the data. To further these efforts, Lumos has obtained ethics approval with the Aboriginal Health and Medical Research Council Ethics Committee to conduct specific analyses on the health outcomes of Aboriginal and Torres Strait Islander people.</li> <li>• Lumos aims to expand state-wide so it can generate insights on up to four million consumer journeys across the New South Wales health system.</li> </ul>

Sources: NSW Health (2019, 2020b; pers. comm., 21 January 2021).

## Linking data depends on linkages between people and organisations

While technology plays a substantial role in linking data — for example, secure software, sophisticated statistical processes and physical infrastructure are all required to ensure privacy is maintained across numerous datasets — the large number of stakeholders involved when linking data means success also depends on strong relationships. Lumos has achieved much of its success by investing significant resources to cultivate the relationships with key stakeholders.

During its four-year pilot, Lumos chose to work with LHDs, PHNs and general practices that had well-established relationships with each other to make it easier to collect and link data. It then showed these stakeholders ways Lumos could be used to improve service delivery.

- Lumos generated dashboards and summary statistics using the data provided by PHNs and general practices. From these, one general practice noticed a substantial proportion of their clients were presenting to hospital emergency departments for non-urgent reasons. This information prompted the general practice to establish a walk-in early

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morning clinic with a nurse to provide the care consumers needed (NSW Health, pers. comm., 21 January 2021).

- The dataset was used to assess the effectiveness of diabetes models of care by indicating the improvements in people’s blood sugar levels after they participated in the program (NSW Health, pers. comm., 16 December 2020).
- Lumos is being used to develop and assess the cost effectiveness of new models of care, such as Collaborative Commissioning (chapter 6; case study 16).

Like other successful initiatives, Lumos fosters relationships by incorporating user feedback in its design. For example, during the early stages of the pilot, general practices offered feedback on the need to automate as much of the data extraction process as possible. Lumos then worked with private vendors to increase the automation capabilities of the data extraction software. While the pilot has been completed, the Lumos team continues to have meetings with PHNs and general practices to seek further feedback (Lumos, pers. comm., 21 January 2021).

In addition, the Lumos team is working with external organisations, including researchers, to use specialist techniques to identify factors that lead to better health outcomes. For example, they found that visiting a GP within one week of an unplanned hospital admission significantly reduces the risk of an unplanned hospitalisation within the next three months (NSW Health, pers. comm., 21 January 2021).

## **Overcoming privacy concerns**

Data linkage projects must address the risks of privacy breaches, which are amplified as the number of datasets grow. Lumos uses high security standards in each stage of the linking process — data collection, storage, retention and disposal — to maintain privacy. For instance, consumer data is de-identified before it leaves a general practice, which reduces the risk of data breaches. In addition, Lumos restricts the number of NSW Health staff who have access to the linked data. All data linking processes occur in a single area of NSW Health; the linked data is encrypted and only authorised Lumos staff can access it to prepare it for release on a secure cloud server (NSW Health 2020b; pers. comm., 21 January 2021).

Further, Lumos works with data custodians in each general practice to obtain consent. Lumos informs data custodians and clinicians about the value of the project, and the steps taken at each stage to ensure data is extracted and processed in a confidential manner. For example, Lumos uses privacy preserving record linkage to allay GPs’ concerns about maintaining patient privacy (NSW Health 2020b; pers. comm., 21 January 2021).

That said, Lumos does not directly inform people when their data is linked — and is not required by the NSW Population and Health Services Research Ethics Committee to do so, on the grounds that the public benefits it can deliver outweigh the extremely low risk to individual privacy. Instead, general practice privacy policies inform individuals that their data may be used as part of Lumos for service planning and management. In co-operation

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with consumer advocates, the Lumos team is designing information resources that will be available for people in participating general practices. This will include advice on how people can opt out (NSW Health, pers. comm., 21 January 2021).

Lumos uses a range of safeguards to maintain privacy when the data is used by approved third parties such as PHNs. Using a cloud server prevents third parties from storing local copies of the data. Lumos only grants third parties access to relevant data. For example, a PHN can see data from practices within its boundaries, but not data from practices in other PHNs. Lumos informs practices that identifying data will not be revealed to any third party outside of the Lumos team or their local PHN. Restricting access to the data in this way maintains the trust of practices and PHNs in the data extraction and linking processes (NSW Health, pers. comm., 21 January 2021).

### **Creating data flows across the entire health system**

The case studies in this chapter provide real-world stories of the benefits from using data and information more effectively. And while most of these examples highlight the need to overcome technological challenges, the most important enablers of success have been their ability to build strong relationships, based on trust, to embed effective data practices. This requires data systems that are simple to use, and regular engagement with stakeholders to ensure these systems are offering them useful insights.

Beyond these local examples, there may be benefits from bringing together the features of all innovations mentioned in this chapter — the granular reporting to the GP offered by Primary Sense and the CCMM, the flow of clinical information enabled by Smart Referrals, and the system overview created by Lumos. Such a flow of information would facilitate a comprehensive understanding of people’s journeys through the health system, enable people to self-manage (chapter 2), and assist healthcare workers to collaborate (chapters 3 and 4).

## 6 Embracing funding innovations

<p><b>Key problems</b></p>	<p>The dominant funding arrangements in the health system are a barrier to providing integrated person-centred care to people with chronic conditions. Successful initiatives exist, but are often small scale, uncertain in duration or require costly efforts to assemble funding from many sources.</p>	
<p><b>Examples of initiatives that address the problems</b></p>	<p><b>Institute for Urban Indigenous Health</b> — assembly of many funding sources and pooled funding to provide integrated care.</p>	
	<p><b>Collaborative Commissioning</b> — pooled funding and joint governance arrangements between primary health networks and local health districts.</p>	
	<p><b>HealthLinks</b> — capitation payments to hospitals and flexibility to provide alternative care outside a hospital setting.</p>	
<p><b>Key findings</b></p>	<p>Introducing blended funding models, which take advantage of the benefits of different payment mechanisms, will improve integrated care. Components of a blended funding model can include:</p> <ul style="list-style-type: none"> <li>• introducing pooled funding and more flexible funding for primary health networks and local hospital networks</li> <li>• making changes to the Medicare Benefits Schedule to encourage activities that contribute to integrated care</li> <li>• using longer-term trials and allocating funding to scale up successful initiatives</li> <li>• addressing the rules that limit the role of private health insurers in prevention.</li> </ul> <p>The case studies featured throughout the report suggest that pooled funding arrangements will need to be supported by shared governance arrangements across multiple levels of the organisations involved, local flexibility in implementation, and monitoring and evaluation against an agreed set of outcomes, including consumer-defined outcomes.</p>	

Managing chronic conditions often requires integrated, ongoing care. Integrated care is facilitated by clinical knowledge, collaboration and information systems (chapters 3–5), and underpinned by sufficient and reliable funding that creates incentives to focus resources where the benefits to people are greatest.

The current funding arrangements for health care in Australia frustrate integrated care (figure 6.1; sections 6.1 and 6.2). Services that make better use of the existing funding streams (section 6.3) and novel funding models that provide the flexibility and incentives to implement initiatives that reduce hospitalisations (sections 6.4 and 6.5) demonstrate the desirable direction of reform (section 6.6).

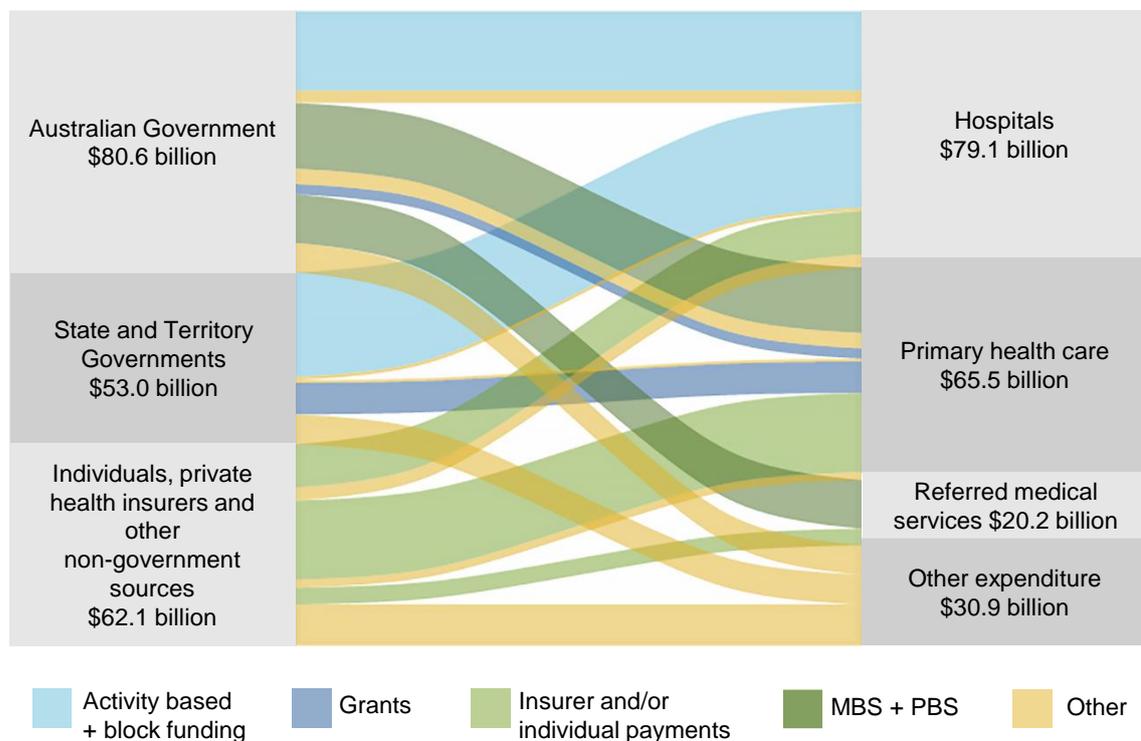
**Figure 6.1 Funding challenges give rise to innovative solutions**

<p><b>Overview of funding arrangements</b> (section 6.1)</p>	<ul style="list-style-type: none"> <li>• The health funding arrangements in Australia are complex.</li> <li>• The Australian, State and Territory Governments provide about 70% of health funding.</li> <li>• Most health funding is provided through activity-based, fee-for-service or block funding.</li> </ul>
<p><b>Current funding arrangements can lead to poor outcomes</b> (section 6.2)</p>	<ul style="list-style-type: none"> <li>• The existing funding arrangements are not well aligned with achieving good outcomes for people with chronic conditions.</li> <li>• Governments have attempted to improve funding arrangements, but problems remain.</li> </ul>
<p><b>Making the most of the current arrangements</b> (section 6.3)</p>	<ul style="list-style-type: none"> <li>• The Institute for Urban Indigenous Health stitches together multiple funding sources to provide wrap-around care.</li> <li>• This model has contributed to reducing the health gap between Aboriginal and Torres Strait Islander people and non-Indigenous people in South East Queensland.</li> </ul>
<p><b>Pooling funding to deliver integrated care</b> (section 6.4)</p>	<ul style="list-style-type: none"> <li>• Collaborative Commissioning involves Primary Health Networks and Local Health Districts pooling funds to implement integrated projects.</li> <li>• It has strong governance arrangements, sharing of risks and ongoing monitoring, accountability and evaluation.</li> </ul>
<p><b>Moving away from activity-based funding</b> (section 6.5)</p>	<ul style="list-style-type: none"> <li>• HealthLinks involves hospitals receiving capitation funding, providing them with flexibility to deliver innovative models of care.</li> </ul>
<p><b>Taking calculated risks to advance funding reform</b> (section 6.6)</p>	<ul style="list-style-type: none"> <li>• Introducing blended funding models and improving current arrangements will improve integrated care.</li> <li>• Funding changes need to be accompanied by strong governance arrangements, improvements in data collection and analysis, and performance monitoring and reporting.</li> </ul>

## 6.1 Overview of funding arrangements

The complexity of health funding in Australia reflects its multiple sources and the siloing of funding by service type (figure 6.2). About 70% of health care is funded by the Australian Government (\$80.6 billion in 2018-19) and State and Territory governments (\$53.0 billion), with the balance coming from individuals, private health insurers and other non-government sources such as workers' compensation schemes (AIHW 2020g).

Figure 6.2 **Healthcare funding is complex**<sup>a,b,c</sup>  
Healthcare funding amounts and flows, 2018-19



<sup>a</sup> Other expenditure includes other services, research and capital expenditure. <sup>b</sup> Excludes the medical expenses tax rebate. <sup>c</sup> MBS = Medicare Benefits Schedule. PBS = Pharmaceutical Benefits Scheme.

Source: AIHW (2020h).

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The Australian Government is primarily responsible for funding:

- primary care, including through the Medicare Benefits Schedule (MBS), community-controlled Aboriginal and Torres Strait Islander primary healthcare organisations through the Indigenous Australians' Health Programme, and the primary health networks (PHNs)
- pharmaceuticals, through the Pharmaceutical Benefits Scheme
- aged care (Biggs and Cook 2018).

The Australian Government partially funds public acute care (mainly public hospitals), which is managed by State and Territory governments. It contributes to private health insurance through the private health insurance rebate and revenue forgone from lower tax rates for people who take up insurance (Biggs and Cook 2018; PC 2017b).

State and Territory governments provide the remaining funding for public hospitals, ambulance and emergency care, while also contributing funding to services in the community, such as community-based mental health services and some allied health services (Biggs and Cook 2018). Local governments also play a role, with many funding population health services, such as immunisation and child and maternal health services (AIHW 2016).

The Australian, State and Territory governments fund research and trials, such as through National Health and Medical Research Council grants and the Queensland Government's Integrated Care Innovation Fund (Biggs and Cook 2018; Queensland Health 2020a).

The majority of funding from the Australian, State and Territory governments is provided through payments for specific categories of services and patient types (fee-for-service under the MBS for much of primary care and activity-based funding (ABF) for hospitals) or through block funding. However, other payment models have been trialled (box 6.1).

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## Box 6.1      **Payment methods used to fund health care**

### **Fee-for-service**

Fee-for-service is a retrospective payment model where providers are paid for each service delivered. Fee-for-service payments encourage efficiency, competition and providing services to more people, but also can also lead to 'over servicing' of patients. Depending on how payments are designed, they may also favour short consultation times and may reduce income for those clinicians who take proactive steps to prevent disease rather than treating illness once it develops. Fee-for-service payments generally do not encourage integrated care, collaboration with other providers, or data collection to help manage the health of the practice population. The Medicare Benefits Schedule (MBS) is a fee-for-service model, under which service providers are paid for individual services and patient contacts (with patient co-payments in many cases).

### **Activity-based funding**

Activity-based funding (ABF) is a type of fee-for-service payment for hospitals, whereby they get paid for the number and mix of people they treat, with payments based on a measure of the efficient cost of service. ABF is the main source of funding for public hospitals. It creates strong incentives for hospitals to provide services efficiently, especially for easily definable episodes of care (such as an appendectomy). However, many services delivered outside a hospital setting that could benefit a patient (for example, outreach services that prevent hospitalisations) are not remunerated; therefore, hospitals have little incentive to provide these services. ABF encourages hospital-based activities even where there are lower cost services with better outcomes and can undermine integrated care.

### **Pay-for-performance**

Pay-for-performance involves rewarding or penalising providers based on achievement of performance targets. Pay-for-performance can lead to improvements in quality or consistency in meeting clinical guidelines. However, depending on the design and context, pay-for-performance can have several drawbacks.

- It can be difficult to monitor and enforce quality of care.
- Performance targets can be hard to define and may not be strongly linked to outcomes.
- It can provide little incentive to improve beyond targets.
- Providers may avoid treating more complex patients to meet targets.

The Practice Incentives Program is an example of pay-for-performance (section 6.2).

### **Block funding**

Block funding involves providing services with an upfront grant to fund program delivery. Block funding is used to fund some hospital services, including teaching, training and research, and services provided in small rural hospitals. It provides services with funding certainty for the length of the contract and, depending on the funding requirements, relatively more flexibility to provide care tailored to people's needs than volume-based payment models. Block funding is suited to cases where it is not technically feasible to use ABF. However, block funding does not encourage greater efficiency in care because payments are unrelated to output.

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## Box 6.1 (continued)

### Capitation payments

Capitation payments are periodic, lump-sum payments that are expected to cover the majority, or all, the care provided to patients. Payments may be risk adjusted to take account of expected differences in the care people require (such as higher payments for elderly people). Capitation payments provide certainty for providers and incentives to reduce costs and undertake prevention activities. They can also encourage coordination between providers. However, capitation payments can encourage services to shift care to other providers, particularly for people with complex needs, and decrease the quantity of services provided. It can also be difficult to monitor and enforce quality. Capitation models can also encourage health services to focus on cohort-level outcomes rather than the outcomes of individual patients, which could lead to individual patients not receiving the care that best meets their needs. Sophisticated capitation models attempt to address these risks, however adjusting payments to reflect each patient's circumstances is complex. HealthLinks (case study 17) includes capitation payments.

### Bundled payments

Bundled payments are payments covering a complete episode of care (for example, a single payment for an episode of maternity care). Bundled payments encourage efficiency and more team-based, integrated care. But it can be difficult to define episodes of care and estimate the right level of payment, in particular where care is provided across hospital and non-hospital settings, potentially leading to under- or over-payment. The Health Care Homes trial (box 6.2) is an example of bundled payments.

### Salary

Salary is a fixed payment for work done over a set period. The effect of salaries on the efficiency and quality of care can vary. For example, a GP may be paid a minimum salary and some share of practice revenue, or a practitioner may be expected to meet throughput targets. In these cases, the effects on incentives are similar to fee-for-service funding. But in community services, the financial incentives for throughput are usually less prevalent, and a salary is simple to administer and provides no incentive to avoid treating people with complex needs or offer lower quality services. On the other hand, a salary can create weaker incentives for the efficient delivery of services.

### Blended payments

Blended payments are any combination of the types of payments above.

### A caveat — incentives are not all about the dollars

All payment systems have pros and cons, but financial incentives are one of a much wider set of incentives for good practice. Other influences include: personal and professional ethics; competition between clinicians; regulation and monitoring; the level of excess demand for services; and the amount of information clinicians have about patients.

*Sources:* AIHW (2021); Dawda (2015); IHPA (2019a, 2019b); KPMG (2019); NHFB (2020); PC (2015); Porter and Kaplan (2016).

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## **Primary care is mainly funded through fee-for-service arrangements**

Governments spent about \$38.7 billion on primary care in 2018-19, through a vast array of funding channels. About \$10 billion is Australian Government funding provided through the MBS (AIHW 2020g). Health professionals receive fee-for-service funding through the MBS in the form of Medicare benefits. The MBS includes most services provided by general practitioners (GPs) and specialists, including consultations, tests, examinations, surgical and therapeutic procedures, eye tests performed by optometrists and pathology tests. It also covers a limited number of consultations with psychologists and allied health services for eligible patients. The MBS stipulates the contribution to each service and under what circumstances the benefit can be claimed (MSAC 2016). Currently there are over 5700 items on the MBS (DoH 2019c).

The Australian Government also provides primary care funding (\$1.3 billion in 2018-19) through the PHNs (DoH 2020g). PHNs commission primary care services, focusing on mental health, Aboriginal and Torres Strait Islander health, population health, health workforce, digital health, aged care, and alcohol and other drugs, and provide support to GPs to improve quality of care (DoH 2016a; EY 2018).

PHNs were established in 2015 to:

- increase ‘the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes’
- improve the ‘coordination of care to ensure patients receive the right care in the right place at the right time’ (DoH 2016a, p. 7).

The size of PHN budgets limits the degree to which these goals can be achieved (section 6.2).

The Australian Government also provides grant funding (about \$4.0 billion over 2019-20 to 2022-23) through the Indigenous Australians’ Health Programme to organisations, including Aboriginal Community Controlled Health Services (ACCHSs), that provide healthcare services to Aboriginal and Torres Strait Islander people (Australian Government nd; DoH 2020d). These health services can also obtain funding from other sources, such as MBS fee-for-service funding.

Community health services, such as allied, child, dental, and mental health services, also receive funding from the Australian, State and Territory governments (AIHW 2020g; VIC DHHS 2020b).

## **Acute care funding is mostly based on activity levels**

Under the Addendum to the National Health Reform Agreement 2020–25 (COAG 2020), the Australian, State and Territory governments have agreed to jointly fund public hospital

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services using ABF (where practicable). Apart from a few exceptions (such as block funding of small rural hospitals) most hospital-related services rely on ABF. This includes:

- admitted services, including hospital-in-the-home programs
- emergency department services
- other outpatient, mental health, subacute and other services that could reasonably be considered a public hospital service (COAG 2020).

In 2018-19, the Australian Government provided \$24.5 billion to public hospitals (AIHW 2020g).<sup>15</sup> The Independent Hospital Pricing Authority sets the National Efficient Price, the National Efficient Cost and price weights, which feed into determining the Australian Government's contribution to public hospital funding (IHPA 2019b).<sup>16</sup>

State and Territory governments are responsible for funding the remainder of government expenditure on public hospitals (\$32.2 billion in 2018-19) (AIHW 2020g), and for determining the allocations of both the Australian Government and State and Territory government contributions to local hospital networks (LHNs) (AIHW 2020b).

## **6.2 Current funding arrangements can lead to poor outcomes**

The existing funding arrangements contribute to the generally high quality of health care provided in Australia. However, funding arrangements are not aligned with achieving good outcomes for people with chronic conditions.

### **The problems with current funding arrangements**

Current funding arrangements for the prevention and management of chronic disease are flawed. As the CSIRO explained:

Many people with complex and chronic diseases require long-term, proactive and systemic care approaches; however, current models of care and funding systems are still largely designed to be responsive to episodic care for issues such as infectious disease and trauma. Furthermore, the overlapping role and responsibility of ambulatory and inpatient care services, separate funding streams and models of care, as well as activity-based funding for acute care, can create barriers to integrated care. (2019, p. 4)

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<sup>15</sup> In addition, the Australian, State and Territory governments contribute funding to private hospitals where they are contracted to provide services to public patients. In 2018-19, the Australian Government provided \$3.9 billion and the State and Territory governments provided \$1.1 billion for the treatment of public patients in private hospitals (AIHW 2020g).

<sup>16</sup> The Australian Government's funding contribution is calculated by summing the previous year's funding, plus 45% of the efficient growth in the cost of service delivery, subject to a 6.5% cap on the growth in the annual total funding contribution (COAG 2020).

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During our consultations, stakeholders cited funding as one of the key barriers to integrated person-centred care. Concerns raised included:

- fee-for-service funding for primary care does not encourage preventive and integrated care
- hospital ABF discourages LHN investment in prevention
- the split in funding and responsibilities between the Australian, and State and Territory governments hampers prevention activities
- the PHNs have insufficient funding to encourage preventive care and improve the quality of primary care
- short-term grant and block funding complicate the provision of long-term, integrated care and make it difficult to obtain resources to scale up trials
- regulation limits private health insurers' investment in prevention.

### Fee-for-service funding encourages activity and efficiency over integrated care

The MBS funding model encourages clinicians to use their time efficiently, as the more people GPs see and the less time they spend providing a service, the more they are paid. However, stakeholders noted the MBS is not well suited to effective chronic disease prevention and management. There are three main reasons for this.

First, fee-for-service funding may lead to clinicians prioritising quantity over quality of care. As GPs are paid for activity rather than outcomes, they have less incentive to spend more time with people and ensure they have provided the care that meets their needs (HRSCH 2016). People with chronic conditions are particularly disadvantaged as their needs are often complex and they may require longer consultations, which tend to offer lower remuneration than an equivalent time spent on shorter consultations (AMA 2015). For example, as at January 2020, the full MBS rebate for a standard level C consultation, which lasts 20–39 minutes, is \$75.05 (or up to \$3.75 per minute), compared with \$108.85 (or up to \$2.72 per minute) for standard level D consultations, which last at least 40 minutes (DoH 2020e).<sup>17</sup>

Second, despite listing over 5700 items, the MBS does not cover all activities beneficial to people with chronic conditions. Examples stakeholders identified during our consultations included many activities undertaken by practice nurses, group preventive health sessions (such as weight loss and lifestyle programs), and rules discouraging outreach — for example, rules requiring consultations to be inside a practice or the person's home can discourage integrated care for people experiencing homelessness.

Third, the MBS can stymie innovation and quality improvement. Many practices have found it costly to make their teams and workflows consistent with the patient-centred medical home

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<sup>17</sup> That is not to say that the answer is simply evening out the payments, as this could encourage longer than necessary consultations.

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model of care due to the structure of the MBS. Some practices participating in Health Care Homes (discussed below) reported the \$10 000 incentive payment did not cover the implementation costs (HPA 2019). Similarly, some Sydney practices reported costs of over \$100 000 to implement patient-centred medical homes (Metusela et al. 2017), with many costs not reimbursable through the MBS. There are only limited payments for quality improvement (discussed below).

### Hospitals are not paid for prevention

Similar to fee-for-service MBS funding, ABF for public hospitals encourages cost-effective delivery of strictly defined types of acute care (PC 2017d). ABF's role in supporting preventive care is mostly limited to some hospital avoidance activities.<sup>18</sup> Funding these can be complex and there is limited flexibility in what activities can qualify. And, as it is still ABF, it stimulates activity rather than encouraging integrated person-centred care. Outside ABF, hospitals receive minimal funding for preventive health.

### Fractured funding discourages investment in prevention

The Commonwealth/State funding split (section 6.1) discourages investment in prevention.

Primary and secondary prevention activities mainly occur in primary care. However, the key benefits to governments from investing in prevention — including avoiding unnecessary healthcare costs to treat chronic disease — are generally realised by acute care. As the Australian Government funds a higher proportion of primary care, but a much smaller proportion of acute care, the Australian Government has weaker incentives to pay for primary and secondary prevention activities that will result in cost savings to State and Territory governments.

On the flip side, the split also inhibits State and Territory governments' ability to invest in primary and secondary prevention.

The complex and sometimes unclear funding responsibilities limit the ability of governments to implement clear governance arrangements for investing in prevention. We heard of examples where there was insufficient funding to scale up successful trials because of unclear funding responsibilities.

### PHNs are constrained by small budgets

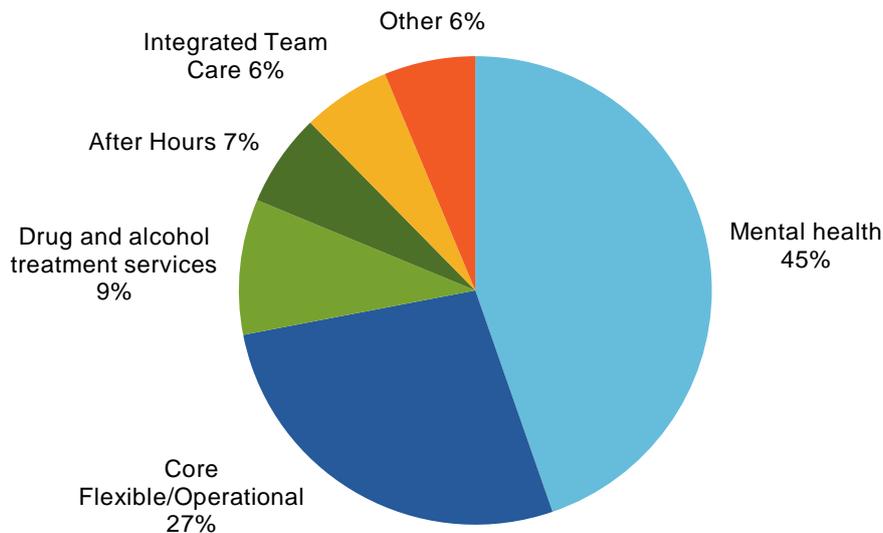
PHNs' funding is mostly tied to specific purposes, such as mental health and after hours services. PHNs are given some flexible funding, which they are expected to use to improve

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<sup>18</sup> Class 40.58 in the Tier 2 Non-Admitted Services Classification covers some clinical assessment, care planning, risk screening, support and advice, and care review activities provided by allied health or clinical nurse specialists (IHPA 2020).

the effectiveness and efficiency of the system, coordination, and the outcomes of key priority groups. However, it is a small part of their budgets. In 2018-19, PHNs received \$1.3 billion, including \$357 million (or 27%) attributed to Core Flexible/Operational funding (figure 6.3). The Core Flexible/Operational funding is used to commission primary care services and support health systems improvement, as well as meet the general business expenses of PHNs (including wages, rent and other routine costs) (DoH 2020g).

Figure 6.3 Breakdown of PHN funding, 2018-19<sup>a</sup>



<sup>a</sup> Other includes the National Psychosocial Measure (3.7%), Innovation (1.0%), General Practice Support (0.8%), Health Care Homes (0.4%) and Greater Choice for at Home Palliative Care (0.3%).

Source: DoH (2020g).

The relatively small amount of flexible funding limits PHNs’ ability to meet their objectives, including improving integration between primary and acute care and addressing chronic disease. EY (2018, p. 2), in its review of the PHN program, also argued that the ‘very “lean” nature of most PHNs’ operating models ... hindered their ability to build capability and scale-up to meet future expectations’.

### Obtaining ongoing, sustained funding can be difficult

Many healthcare services accessed by people with chronic conditions are funded through block funding and grants, including Aboriginal health services funded through the Indigenous Australians’ Health Programme and services commissioned by PHNs (section 6.1). Many funding contracts are short term — for example, until recently, PHNs were required to limit contracts for mental health services to 12 months (Aubusson 2019). Even where contracts are ultimately renewed, the uncertainty makes it difficult to attract and

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retain experienced staff, and there are significant administrative costs imposed on organisations when they have to continually tender for contracts (PC 2020c).

Government block funding and grants are often narrow in scope and do not cover the full spectrum of services required for integrated person-centred care. As a result, providers implementing this type of care cobble together funding from multiple different sources, which imposes significant administrative burden and compliance costs.

In the delivery of holistic services in the 2013-14 financial year, Rumbala Aboriginal Co-operative held 48 separate agreements with 12 funding agencies that included state and federal government departments, government-funded not-for-profit organisations and other agencies. They were required to provide 409 reports against 46 of these agreements, with reports at monthly, quarterly, half-yearly and annual intervals. (CREATE 2020, p. 139)

The difficulties projects face obtaining ongoing funding have led to creative solutions, for example, the use of philanthropy and crowdfunding to fund outreach services for people experiencing homelessness (O’Leary 2017).

The limitations of grant funding can inhibit innovation. Stakeholders told the Commission that trials of promising programs are hampered by short-term contracts and inadequate funding for scaling them up. Short-term trials limit the ability of initiatives to demonstrate their value. Many initiatives are trialled for just 1–3 years, although many of the benefits of chronic disease management initiatives, such as reduced hospitalisations, take longer to be realised.

Some stakeholders talked about a culture of trialling, evaluating, then moving onto the next trial. This impedes the diffusion of successful interventions and burns the goodwill of health practitioners, reducing their willingness to participate in trials. For example, in the model of care for people with diabetes implemented in the Darling Downs region, some GPs were cautious about referring people to the program due to scepticism about whether the project would continue beyond the trial phase (Darling Downs Hospital and Health Service, pers. comm., 11 January 2021).

Some governments have established dedicated funds for innovative healthcare projects and trials. For example, the Queensland Government’s Integrated Care Innovation Fund supports innovative partnerships between PHNs and hospital and health services in order to deliver better integrated care, address fragmentation in services and provide high-value health care (Queensland Health 2020a).

### Private health insurers are limited in funding prevention activities

Stakeholders also raised issues about the role of private health insurance in funding chronic disease prevention and management. Risk equalisation in private health insurance results in insurers with lower than average claim costs sharing savings with insurers with higher than average claim costs. Risk equalisation blunts insurers’ incentives to fund chronic disease prevention and management (Duckett, Cowgill and Nemet 2019; PC 2017d).

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Where private health insurers do want to invest in primary care to improve the health and wellbeing of their consumers, they face restrictions. Under the *Private Health Insurance Act 2007* (Cth), private health insurers cannot fund services provided outside of hospital that are eligible for MBS rebates. However, the Broader Health Cover<sup>19</sup> measure allows private health insurers to offer limited chronic disease management products to their consumers. The exemption has led to private health insurers offering a range of chronic disease management programs, including services such as care navigation and coordination, and health coaching. However, most insurers have made only limited investments in this space (Khoo, Hasan and Eagar 2019; PC 2017d).

### **Governments have tried to address funding incentives, but problems remain**

Governments have attempted to address some of the problems posed by the funding arrangements, by providing additional incentives to GPs to undertake quality improvements and provide more integrated care. However, some of these funding changes are in their early stages. Others have ambiguous effects or highlight the problems that arise when attempting to use highly prescriptive approaches to improve care for people with chronic conditions.

Governments have also begun putting in place some of the settings required to undertake larger scale funding reforms (section 6.6).

#### **Items added to the MBS**

Items related to chronic disease management were first added to the MBS in 1999 and have been extended and updated over the past two decades (DoH 2014). The items cover a GP preparing and reviewing GP Management Plans, coordinating Team Care Arrangements, contributing to care plans developed by other clinicians, and organising and attending case conferences (DoH 2020e). People who have a GP Management Plan and Team Care Arrangements can access MBS-rebated services from some allied health providers (Welberry et al. 2019a). The MBS also includes rebates for a range of other chronic disease prevention and management activities undertaken by GPs, which cover areas such as preventive health assessments, diabetes management and asthma management (PC 2017d).

The Chronic Disease Management items have led to an increase in care plans and use of allied health (Welberry et al. 2019b), but questions remain about their coverage and effectiveness. Many people with chronic conditions do not have GP Management Plans or Team Care Arrangements, and many existing plans are not regularly reviewed (Douglas et al. 2011; Welberry et al. 2019b). There is also equivocal evidence of improved outcomes. For example, while GP Management Plans were associated with reduced or delayed

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<sup>19</sup> The Broader Health Cover measures were introduced in 2007 to allow private health insurers to offer benefits for programs that reduce hospitalisations or help people with chronic conditions better manage their health (Biggs 2013).

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hospitalisations in people aged over 65 years with diabetes and congestive heart failure (Caughey et al. 2016; Vitry et al. 2014), a recent study of the general population found no association between GP Management Plans and/or Team Care Arrangements and hospitalisations (Welberry et al. 2019a).

## Practice Incentive Payments

The Australian Government uses financial incentives to encourage general practices to improve quality of care and undertake more chronic disease management. The Practice Incentives Program (PIP) was established in 1998 to provide additional payments to GPs for specific activities. Payments covered areas such as the treatment of diabetes and asthma, cervical cancer screening, Aboriginal and Torres Strait Islander Health, adoption of e-health, teaching to medical students, aged care services and adherence to evidence-based guidelines (PC 2015).

In August 2019, the PIP was replaced with the PIP Quality Improvement (QI) Incentive, due to views the PIP needed to be strengthened and simplified (DoH 2016b). General practices receive PIP QI incentive payments for quarterly submission of the PIP Eligible Data Set to their PHN and working with their PHN to undertake continuous quality improvement activities. The data set includes ten improvement measures covering chronic conditions (chronic obstructive pulmonary disease, diabetes and cardiovascular disease), healthy behaviours, vaccinations and screening (DoH 2019e, nd; PC 2017d).

We heard mixed views from stakeholders on the PIP QI. Some considered it has encouraged practices to improve their data collection, and the requirements to receive the PIP QI can be changed and expanded over time. Some PHNs noted the PIP QI was helpful in getting general practices to participate in other programs, as their participation counted towards meeting the requirement to undertake quality improvement activities. However, others argued the data requirements were too low and would not lead to substantial improvements in quality of care.

## Health Care Homes

Since 2017, the Australian Government has been trialling bundled payment models as part of the Health Care Homes (HCH) trial. The HCH trial is examining the outcomes of providing monthly payments to general practices offering integrated care to people with chronic and complex health conditions (box 6.2).

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## Box 6.2 Health Care Homes

The Health Care Homes (HCH) trial aims to provide coordinated care, management and support for people with chronic and complex health conditions. A Health Care Home is a general practice or Aboriginal Community Controlled Health Service that coordinates a person's care. The person receives team-based care led by their usual GP, with support from other workers within and outside the practice, such as nurses, practice managers, allied health professionals and specialists (DoH 2020b).

In the 2016-17 Budget, the Australian Government committed \$21.3 million over four years for the HCH trial (Australian Government 2016). The trial began on 1 October 2017 and was initially scheduled to end in November 2019. The trial was extended to 30 June 2021 because of the slow rollout and implementation issues faced by practices, participants and PHNs (DoH 2020b; HPA 2019).

The HCH trial has several innovative features.

- Participants were selected using a two-stage approach. First, a risk stratification tool was used to scan practices' electronic records to identify people who had at least one chronic condition and were at high risk of hospitalisation in the next 12 months. Second, people who were identified by the risk stratification tool (or were identified by the practice) were assigned to a complexity tier, using information from the risk stratification tool and a questionnaire covering a range of factors. Once this occurred, people could choose to enrol in HCH (DoH 2018a).
- Rather than receiving MBS fee-for-service payments, HCH receive bundled payments for providing care to participants. Payments are provided monthly and are based on the participant's tier. The bundled payment is intended to cover care associated with the participant's chronic and complex conditions. People can still access MBS funding for other care, and funding for specialists, allied health professionals and diagnostic imaging services. Practices also received a one-off \$10 000 payment to implement HCH (DoH nd).
- All participants must have a shared care plan, which is developed by the participant and the care team, and can be electronically shared between the participant and all healthcare providers (DoH 2017).

The Australian Government selected 10 PHNs to participate in HCH (DoH 2020b). It was initially expected about 200 practices and 65 000 people would participate, however, as at 30 June 2020, about 9000 people and 120 practices were participating (HPA 2019, 2020). About 50% of practices and 21% of participants who had participated in the trial at some point had withdrawn by 30 June 2020 (HPA 2020). Reasons practices gave for withdrawing included having too few people enrolled, difficulties implementing the model, inadequacy of the bundled payment, GPs' lack of interest and the model not leading to the expected benefits. The main reason participants withdrew was their practice withdrew (HPA 2019, 2020).

The HCH trial is being evaluated — two interim reports have been released, with the final evaluation report expected by the end of 2021.

The interim evaluation reports focused on qualitative findings and lessons from the establishment phase of the program, and the early and midpoint experiences of practices and their staff. They concluded that the implementation of HCH revealed many areas needing more attention if there were to be a wider rollout. They also found that the HCH model could not be mandated — practices need to experience it for themselves or learn from others. However, many practices and people reported positive experiences (HPA 2019, 2020).

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The HCH model has several desirable elements, including its use of bundled payments, a focus on services for people with chronic conditions, increased flexibility in who can provide care and greater use of allied health professionals. However, interim evaluations and stakeholders identified some flaws in the model and its implementation.

- The scale of change required was underestimated and GPs were not given enough time to implement the program, as evidenced by the high drop-out rates (box 6.2).
- Many practices reported receiving insufficient information and support to set up and implement HCH.
- The management of the bundled payment proved complicated for many practices and some reported it was insufficient to cover the cost of the model.
- Many consumers struggled to understand what HCH meant for them.
- Mixed success getting GPs to engage with the model and staff turnover affected practices' ability to deliver HCH.
- The eligibility requirements were too restrictive (HPA 2019, 2020).
- The model was too prescriptive (PC 2017d).

Nevertheless, there were some early positive signs for the participants and practices who had persisted with the program. For example, participants reported getting more information about their condition, improved access to the practice, such as being able to telephone the practice to talk to nurses about their condition, and more seamless care within the practice (HPA 2019, 2020). Most practices are keen to continue participating in HCH in some form as long as changes are made to improve the viability and sustainability of the model (HPA 2020). Health Policy Analysis (HPA 2020), in its second evaluation report, recommended extending the trial for a further 12 months to provide continuity for practices and participants and until the components of the next iteration of HCH are put in place.

### Voluntary patient enrolment

In 2019, the Australian Government announced it would provide \$448.5 million over three years from 2020-21 for a voluntary patient enrolment scheme. Under this scheme, patients would voluntarily commit to seeking all their treatment from the general practice they enrol with, rather than using a variety of practices. In return, it is intended they receive ongoing, integrated care. The scheme was meant to be limited to non-Indigenous people aged 70 years and older, and Aboriginal and Torres Strait Islander people aged 50 years and older (Australian Government 2019; Tsirtsakis 2020). The scheme was co-designed with the Australian Medical Association and would involve general practices receiving an additional payment for each enrolled person, to cover services such as consultations, referrals, test results and scripts (CHF 2019; DoH 2019a). However, the implementation of the scheme has been delayed because of the COVID-19 pandemic, and the need for further refinements to the scheme (Tsirtsakis 2020). A revised model is being considered as part of the 10-Year Primary Health Care Plan, and is expected by the 2021-22 Budget (DoH 2020h).

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## 6.3 Making the most of the current arrangements

Many health services rely on multiple, often short-term, funding sources (section 6.2). While this creates problems, including difficulties providing continuity of care and significant administrative burdens, some health services, particularly ACCHSs, have successfully managed the different funding sources to deliver integrated care.

ACCHSs face substantial challenges. They are servicing a highly disadvantaged population in a health system that is often not well suited to the needs of Aboriginal and Torres Strait Islander people, and need to overcome difficulties related to the workforce, funding, advocacy and service delivery (CREATE 2020). Funding challenges include:

- insufficient, restrictive and insecure funding limits ACCHSs' ability to provide services tailored to individual and community needs (such as dental services), meet wage growth, and evaluate programs
- considerable time and resources are needed to prepare tenders and funding submissions, and coordinate multiple sources of funding
- MBS funding models do not always match Aboriginal and Torres Strait Islander ways of working (CREATE 2020). ACCHSs aim to offer integrated, coordinated care (which requires longer consultations for people with complex needs) that is not always financially sustainable under the MBS.

Yet despite these challenges, stakeholders noted ACCHSs manage to use the various health funding streams, including government grants and the MBS, to provide care to Aboriginal and Torres Strait Islander people that is more comprehensive and integrated than that provided in many mainstream services. An example is the Institute for Urban Indigenous Health (IUIH) (case study 15).

### **Institute for Urban Indigenous Health**

IUIH was established in 2009 by four ACCHSs in south-east Queensland (SEQ).<sup>20</sup> At the time, the ACCHSs needed to address significant problems, including:

- low rates of access to care — for example, only 3% of children and 4% of adults who were eligible for MBS rebated annual health checks received them
- services were not located where they were needed — only 16% of the Aboriginal and Torres Strait Islander population in SEQ were regularly accessing ACCHSs and access patterns were strongly influenced by proximity to services

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<sup>20</sup> The four original ACCHSs are Aboriginal and Torres Strait Islander Community Health Service Brisbane, Karwun Development Corporation, Kambu Aboriginal and Torres Strait Islander Corporation for Health and Yulu-Burri-Ba Aboriginal Corporation for Community Health. A fifth ACCHS — the Moreton Aboriginal and Torres Strait Islander Community Health Service — was established to address service gaps in that area and is run by IUIH (IUIH 2020a).

- concerns that government funding policies favoured delivery of services to urban Aboriginal and Torres Strait Islander people through the mainstream system
- the ACCHSs were not fully accessing the MBS where it was available to them
- governance challenges, with high levels of executive turnover and local politics sometimes affecting service efficiency (Nous Group 2019b, 2019a).

Since 2009, the IUIH network has gone through a rapid expansion, with five ACCHSs operating over 20 clinics that provide comprehensive health and social support services. IUIH provides regional coordination and management support, including service planning and development, funding and investment, IT and data, clinical and corporate governance, workforce development, and management of community and allied health programs (case study 15).

An evaluation of IUIH found it had been effective in reducing the health gap between Aboriginal and Torres Strait Islander people and non-Indigenous people in SEQ (Nous Group 2019a).

Case study 15	Institute for Urban Indigenous Health
<p><b>What is IUIH?</b></p> 	<p>IUIH represents a regional network of Aboriginal Community Controlled Health Services providing services to Aboriginal and Torres Strait Islander people in south-east Queensland (SEQ). IUIH has transformed the way Aboriginal and Torres Strait Islander health care is delivered in SEQ, with four key strategies, including:</p> <ul style="list-style-type: none"> <li>• service reach — improve primary health care delivery to urban Indigenous communities</li> <li>• access and participation rates — increase access to health services to improve health outcomes</li> <li>• income generation — maximise income generation opportunities available through MBS items</li> <li>• workforce development — develop and upskill the health workforce to provide culturally appropriate services. (Nous Group 2019b, p. 16)</li> </ul>
<p><b>How was IUIH developed and implemented?</b></p>	<p>IUIH was formed in 2009 to coordinate and support service delivery at the regional level in SEQ. IUIH manages the system at a regional level and designs and implements the network’s funding model, including increased reliance on MBS funding to help expand its service offerings.</p> <p>The IUIH network operates over 20 clinics providing ‘one-stop shop’ clinical care, supplemented by locally accessible, but regionally managed, programs including allied health, dental, specialist, care coordination, aged care, justice, family wellbeing and child protection services. Community engagement is a major focus for IUIH through preventive health and social marketing campaigns, such as Deadly Choices. These campaigns raise awareness of health issues and the social determinants of health.</p>

<p><b>(continued)</b></p>	<p>The UIH network's services are structured around the UIH System of Care, which has seven elements.</p> <ol style="list-style-type: none"> <li>1. Data planning and continuous quality improvement — through analysis and review of performance against specified targets, and encouraging improved clinical and business performance and active tracking of population growth and movement.</li> <li>2. Governance structure — a constitution and board structure underpinned by a cultural integrity framework.</li> <li>3. Network structure — a regional 'one-stop shop' approach, with most services being co-located.</li> <li>4. Clinical governance — processes for governing boards of each Aboriginal Community Controlled Health Service, management and staff, with a toolkit for monitoring clinical quality and safety.</li> <li>5. Workforce strategy — monitoring staff workflows to ensure service needs can be met in each location; in-house training and skills development; and partnerships with universities and other education providers (chapter 3).</li> <li>6. Community engagement and empowerment — strategies to engage with the community, build health literacy and promote health behaviours and prevention.</li> <li>7. Shared IT systems — a single electronic health information system, which supports the effective delivery of care and enables identification of trends and service gaps to inform service planning and improvement.</li> </ol>
<p><b>What has UIH achieved?</b></p>	<p>UIH contracted the Nous Group to undertake an evaluation of its operations. Some of the UIH network's achievements from 2009 to 2018 highlighted in the evaluation include:</p> <ul style="list-style-type: none"> <li>• increasing the number of clinics in the UIH network from 5 to 20</li> <li>• increasing the number of regular clients from 8000 to 35 000, which equates to an increase from 16% to 51% of the Aboriginal and Torres Strait Islander population in SEQ</li> <li>• expanding its services to include aged care, justice, child safety, early childhood and disability services</li> <li>• increasing annual health assessments from 550 to 21 000</li> <li>• increasing its MBS income from \$3.1 million to \$15.6 million, leading to less reliance on non-ongoing grant revenue.</li> </ul> <p>An independent assessment of the economic impact of UIH estimated the UIH System of Care generated \$1.43 of benefit for every \$1 invested and that UIH had generated \$100 million in benefit to the community since its establishment. Benefits included avoided hospitalisations, increased productivity and earnings for community members because of avoided hospitalisations, and value added from the development of the UIH workforce. Another independent assessment estimated that UIH's model of care would improve the health-adjusted life expectancy of its served population by 0.4 years.<sup>21</sup></p>

<p><b>What makes IUIH successful?</b></p>	<p>A key element of IUIH's success is its funding strategy. IUIH's focus on sustainable MBS revenue and its unique approach to funding services has enabled the network to expand the number of clinics and its range of services.</p> <p>In addition, there are other factors contributing to IUIH's success.</p> <ul style="list-style-type: none"> <li>• The IUIH network's Cultural Integrity Framework is embedded in its practices, strengthening the alignment between community and organisational operations.</li> <li>• Its regional approach to planning and service delivery has enabled the IUIH network to increase its range of primary care and social services.</li> <li>• The IUIH network's integrated data systems enabled it to identify and address service gaps.</li> <li>• Its partnerships with universities and other education providers led to the development of an Aboriginal and Torres Strait Islander workforce, who can provide culturally safe care (chapter 3).</li> </ul>
<p><b>Where to next for IUIH?</b></p>	<p>The Nous Group evaluation made several recommendations, including that the IUIH network should:</p> <ul style="list-style-type: none"> <li>• consider alternative delivery options, such as successful models implemented internationally, to ensure it continues to deliver high-quality care</li> <li>• improve performance of its less well performing clinics</li> <li>• continue to build its relationships, including with the tertiary education sector, acute care services, PHNs and LHNs.</li> </ul>

Sources: IUIH (2020c); Nous Group (2019b, 2019a).

Considered use and management of funding has been a key enabler of IUIH's success. The IUIH network stitches together over 65 different funding programs from 25 distinct sources to provide a comprehensive set of services to its consumers. This requires IUIH to manage over 100 cost centres as part of its financial systems and processes (IUIH, pers. comm., 4 January 2021). To reduce its reliance on grant revenue, which is periodic and involves significant administrative costs, IUIH aims to fund as many health services as possible through MBS rebates. The IUIH network's increased use of MBS revenue has also enabled the expansion of services across the IUIH network, including adding new services not otherwise funded by grants, such as allied health (Nous Group 2019b).

The IUIH network has achieved growth in MBS funding by working with each clinic to access the MBS funding they are eligible for. Between 2010-11 and 2019-20, MBS revenue across the IUIH network grew from \$3.1 million to \$18.0 million (IUIH 2020b; Nous Group 2019b). This was due to a combination of the much larger client base and changes to

<sup>21</sup> Health-adjusted life expectancy is a measure of life expectancy based on healthy years of life. It discounts life expectancy for years likely to be lost to both illness and disability (Nous Group 2019b).

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the service mix provided. Across the ACCHSs, MBS revenue per dollar of grant income varied from \$0.55 to \$1.05 in 2017-18 (Nous Group 2019b).

However, the model has risks. ACCHSs can access the MBS while also receiving grant funding because of an exemption to restrictions under the *Health Insurance Act 1973* (Cth). The success and expansion of IUIH's model relies on the arrangement continuing.

## **Victorian community health services**

Like IUIH and other ACCHSs, community health services in Victoria bring together various funding sources, including grants from Victorian Government departments, funding from PHNs, MBS and philanthropic funding, to provide a comprehensive range of primary care services. They deliver health care to vulnerable populations, including Aboriginal and Torres Strait Islander people, people with intellectual disability, children in out-of-home care, people with mental illness, refugees and asylum seekers and people experiencing or at risk of homelessness (VAGO 2018).

For example, cohealth, a community health service operating in Melbourne's northern and western suburbs, brings together about 70 different funding streams to provide a large suite of primary care services and social services, including doctors, dental, allied health, justice, homelessness and National Disability Insurance Scheme services. While bringing together many funding sources imposes costs, including significant reporting requirements, it also gives cohealth the flexibility to provide wrap-around services to consumers (cohealth, pers. comm., 12 January 2021).

IUIH and cohealth demonstrate that innovative, integrated care can be achieved within the current funding arrangements, but it requires significant cost and effort. Improvements to funding would make it easier for health services to provide integrated person-centred care (section 6.6).

## **6.4 Pooling funding to deliver integrated care**

Pooled funding provides one way to address the primary–acute funding divide. It has been trialled in the past for funding primary care; for example, the Australian and State and Territory governments pooled funding for the Coordinated Care Trials in the 1990s (Marcus 1999).

Under current funding arrangements, pooling funds to support integrated care occurs relatively rarely. Some organisations pool funds on a smaller scale, such as the IUIH network pooling funds for its member ACCHSs (section 6.3) and local collaborations (chapter 4). More widespread adoption of pooled funding — such as pooled funds shared by PHNs and LHNs — would enable a more comprehensive approach to chronic disease prevention and

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management. Pooled funding is complex, as it requires comprehensive governance, monitoring and accountability arrangements. But it has many benefits, including:

- pooling resources allows funding to be allocated more flexibly
- combining the different skill sets and levers available to different organisations
- consideration of a person's full cycle of care as they move between primary and acute settings, including a greater capacity to invest in primary care to lower the use of acute care (PC 2017d, 2020c; Woolcock 2019).

In recent years, there has been an increased focus on implementing more pooled funding between PHNs and LHNs. The New South Wales Government is trialling pooled funding on a more systemic basis through Collaborative Commissioning.

## **Collaborative Commissioning**

The New South Wales Government is trialling pooled funding between PHNs and LHNs through its Collaborative Commissioning project (case study 16). The project is still in its early stages, but stakeholders believe it has significant promise, with key elements including:

- joint governance arrangements
- sharing of risks and of any financial benefits realised
- significant support from the New South Wales Government
- sufficient time to implement new models of care
- sophisticated data and modelling used to demonstrate the effectiveness of projects
- strong monitoring and accountability built into each project
- ongoing evaluation of the program built in from the start.

In effect, Collaborative Commissioning seeks to embed some of the key success factors of collaboration, which are discussed in detail in chapter 4.

Case study 16	Collaborative Commissioning
<p><b>What is Collaborative Commissioning?</b></p> 	<p>Collaborative Commissioning is a New South Wales Government initiative designed to further shift the NSW health system towards value-based health care. Collaborative Commissioning aims to enhance integration between healthcare settings and providers to improve outcomes for people. It invests in local partnerships and encourages local accountability to deliver person-centred care in the hospital and the community. Collaborative Commissioning has five guiding principles:</p> <ul style="list-style-type: none"> <li>• Strong person and community engagement.</li> <li>• Commissioning evidence-based and locally designed care pathways that focus on local needs and people’s priorities.</li> <li>• Collaboration and joint accountability across providers and organisations.</li> <li>• Promoting flexible purchasing and provider arrangements, realignment of existing resources and outcome-based payments.</li> <li>• Investing in enablers including data analytics, digital technologies, business analytics and implementation support to inform strategic decisions.</li> </ul>
<p><b>How was Collaborative Commissioning developed and implemented?</b></p>	<p>Under Collaborative Commissioning, PHNs and local health districts (LHDs) form joint partnerships to address their local health priorities. These partnerships, formalised through Patient Centred Co-Commissioning Groups (PCCGs), are responsible for co-designing, commissioning, implementing and overseeing the initiatives. Funding for the projects is achieved by pooling funds from PHNs and LHDs and any cost savings will be shared. NSW Health provides guidance and support, and short-term investment to assist in the establishment and development of the initiatives.</p> <p>To ensure successful implementation, sustainability and scalability, Collaborative Commissioning is using a phased approach. PCCGs enter a Joint Development Phase for an agreed period (expected to be 6–12 months) where proposals for the initiative are tested, modified and refined with the NSW Ministry of Health providing financial, legal and data analytics support. Following the Joint Development Phase, PCCGs enter the first phase of implementation (the Feasibility Phase) where initiatives commence enrolment of patients. As part of this phase, all parties agree to a monitoring and evaluation plan, including agreed outcomes and the method for sustainability before moving to full contractual implementation. The New South Wales Government has committed to providing support to projects for three years once they have advanced from the Joint Development Phase.</p>

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(continued)

Collaborative Commissioning is still in the early stages. In 2019, NSW Health invited LHDs and PHNs across New South Wales to submit expressions of interest to determine the partnerships best placed to be the first to enter the Joint Development Phase. To date four partnerships have entered this phase and are each developing different models of care, including:

- alternative care for people with low-acuity conditions who would normally present to emergency departments
- cardiology in community
- rapid expansion of care in the community
- addressing poorly managed type 2 diabetes
- urgent care for frail older persons
- improved outcomes for people with chronic obstructive pulmonary disease and congestive heart failure.

One partnership has now completed the Joint Development Phase and has entered the feasibility phase.

The eventual aim is for all 10 PHN regions in New South Wales to establish Collaborative Commissioning models. The Collaborative Commissioning initiative is being independently evaluated by an academic partnership led by The George Institute. The Lumos dataset (case study 14) has been used to build a dynamic simulation model to forecast the expected benefits and costs of care pathways, which will be used in the monitoring and evaluation of the initiative. All general practices participating in Collaborative Commissioning pathways are required to provide data to Lumos.

Sources: Liotta (2020); NSW Health (2020a, pers. comm., 12 February 2021).

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## 6.5 Moving away from activity-based funding

Allowing health services to use funding more flexibly to meet people's needs can improve outcomes and lead to more efficient use of resources. There are different options to introduce more flexibility into funding (box 6.1), but all require careful planning and good data. The Victorian Government's HealthLinks project highlights both the complexity of implementing flexible funding and the potential for positive outcomes.

### HealthLinks

HealthLinks is a Victorian Government initiative introduced in 2016-17 to improve the care provided to people with chronic and complex conditions and reduce unnecessary hospitalisations (case study 17). Hospitals are given a capitation grant, rather than ABF, for

a cohort of people at risk of multiple unplanned hospitalisations. Hospitals can use the funding flexibly to provide alternative models of care, such as outreach and coordinated care (box 6.3).

Case study 17	HealthLinks
<p><b>What is HealthLinks?</b></p> 	<p>Through HealthLinks, the Victorian Government is providing more flexible funding to hospitals, to examine whether it leads to hospitals delivering more integrated and innovative care that may provide better experiences and outcomes for people with chronic conditions, at no additional cost to the public health system.</p>
<p><b>How was HealthLinks developed and implemented?</b></p>	<p>HealthLinks was trialled from 2016-17 to 2018-19 and the initiative continues in 2020-21. For the first two years, the Victorian Government fully funded the trial, with the Australian Government joining from 2018-19. Five hospitals were participating in the program in 2020-21 (box 6.3).</p> <p>HealthLinks focuses on people with chronic and complex health conditions who are at risk of three or more unplanned hospital admissions in a 12-month period. People are identified using an algorithm applied to the Department of Health’s hospitals datasets. The algorithm considers factors including: unplanned admissions in the past six months; emergency department (ED) visits in the past three months; age; residential status; smoking status; and selected chronic conditions such as digestive disorders, kidney disease, asthma, chronic obstructive pulmonary disease, rheumatoid arthritis, diabetes and pancreatic conditions.</p> <p>People are excluded from HealthLinks for a range of reasons, including if they are already accessing state-wide services for HIV, poliomyelitis, cystic fibrosis, spinal cord injury, transplant patients and the Victorian respiratory support service. People are also excluded from HealthLinks for 12 months if they are admitted to hospital for maternity care, radiotherapy or chemotherapy, palliative care, major trauma or mental health care.</p> <p>People identified by the algorithm who have an unplanned admission become enrolled in HealthLinks. Under the HealthLinks model, participating hospitals receive funding for the enrolled cohort as a capitation grant, rather than the activity-based funding they would have received from the Australian and Victorian Governments.</p> <p>The capitation grant is calculated on the expected use of inpatient activity-based funding units, based on data from the previous five years. In 2016-17, about \$40 million was converted to capitation grants (about 0.25% of the \$16 billion recurrent expenditure on Victorian public hospitals). The capitation grant must be used to cover all services provided to the cohort, including hospital inpatient admissions and the alternative HealthLinks services provided.</p>

<p>(continued)</p>	<p>The hospital does not have to provide an alternative intervention to the entire cohort. It can choose to target a specific group within the cohort, such as people with particular chronic conditions or highly complex needs, and provide conventional care to the rest of the cohort. The hospital gets to keep any savings resulting from service innovation and efficiency.</p> <p>Communities of Practice, covering clinical, operational and data and analysis processes, were established to support the implementation of HealthLinks and share lessons across the participating hospitals. The Communities of Practice are supported by a secretariat in the Victorian Department of Health.</p>
<p><b>What has HealthLinks achieved?</b></p>	<p>At the site level, Alfred, Barwon, Monash and Western Health have all reported positive results, including better patient outcomes and more efficient hospital use (box 6.3).</p> <p>However, evaluation of the overall HealthLinks initiative has provided more equivocal results. On the positive side:</p> <ul style="list-style-type: none"> <li>• the interim evaluation covering the first year of the trial found that staff at the intervention hospitals felt HealthLinks had enabled them to provide more holistic and integrated care, engage with participants who might otherwise not be receptive to receiving support, and had enabled participants to better self-manage their health at home. These positive staff views carried over into subsequent years, with health practitioners considering that HealthLinks participants both had developed greater trust in the health system and that they experienced better care</li> <li>• over the three-year trial period examined by the final evaluation, patients at participating hospitals had statistically significant fewer visits to ED per month and shorter ED stays at participating sites during the HealthLinks trial than before joining. Intervention participants' service use of non-admitted services also focused more on individual specialist services, whereas the control group tended to access a much wider range of services. This could indicate intervention patients were getting care better targeted to their needs.</li> </ul> <p>However, the overall evaluation of the trial found:</p> <ul style="list-style-type: none"> <li>• patients at participating hospitals were admitted more times per month and spent longer in hospital when admitted during the trial than before joining. Although the findings were statistically significant, the magnitude of change per patient per month may not be operationally meaningful</li> <li>• notwithstanding health practitioners' positive perceptions of the patient experience under HealthLinks, when <i>patients'</i> views were sought, there was no variation between satisfaction and perception of quality of care between the participating and control group hospitals</li> <li>• HealthLinks was associated with an increase in costs, though costs had begun to stabilise by the end of the trial.</li> </ul>

<p><b>(continued)</b></p>	<p>These mixed results may partly reflect methodological challenges facing the evaluations.</p> <ul style="list-style-type: none"> <li>• The first evaluation only covered a short period for a small number of enrolled participants.</li> <li>• The usual care group had different characteristics to the intervention group.</li> <li>• Low intervention patient participation in patient surveys and workforce focus group surveys and interviews.</li> <li>• The cost estimates were subject to considerable uncertainty, particularly as it was difficult to separate the costs of the intervention from costs of usual care.</li> <li>• Some patients may have received care for conditions that would not have been picked up, or would have been detected later, under usual care, which would contribute to the hospital utilisation results.</li> <li>• HealthLinks may not have had sufficient time to demonstrate results. Innovative interventions often take time to deliver benefits, as has been documented in a long-run assessment of a new integrated care model in Nottinghamshire, United Kingdom. In that instance, hospital use was initially higher in the first two years and then fell significantly in the following four years.</li> </ul> <p>Moreover, any novel program faces implementation challenges. There were, for example, significant early problems associated with the algorithm, such as integrating it into local computer systems.</p> <p>Overall, it is too early to reach a definitive view about the outcomes of HealthLinks. However, implementers consulted by the Commission were positive about the long-run benefits of HealthLinks, which underpinned their continued willingness to allocate scarce health funds to the initiative. Long-run follow-ups will provide more lessons about implementing capitation models of care.</p>
<p><b>Where to next for HealthLinks?</b></p>	<p>HealthLinks has continued since the trial was completed. This gives the Victorian Government and hospitals the opportunity to continue developing and adapting HealthLinks. The Victorian Government and other jurisdictions can also learn from HealthLinks and use this knowledge to expand the use of flexible funding models.</p>

Sources: Clarke, Pariza and Wolters (2020); CSIRO (2019); Martin et al. (2019); SCRGSP (2021); VIC DH (2021); VIC DHHS (2016a, 2017, 2020a, 2020e).

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## Box 6.3 Overview of HealthLinks projects

### Alfred Health

Alfred Health began participating in HealthLinks in 2017, by using the HealthLinks model to redesign its Hospital Admission Risk Program (HARP), including building capacity and strengthening its links with other clinical and non-clinical services. HARP provides multidisciplinary clinical and non-clinical team-based care, including care coordination, clinical outreach, services provided by pharmacists, dietitians, social workers, physiotherapists, and occupational therapists, and links and referrals to other services, such as housing support (Alfred Health 2020). A big part of the redesign of Alfred Health's HARP program was expanding the workforce to include better medical oversight to complement the psychosocial aspects of care. Through HealthLinks, Alfred Health also identified additional need for services for heart failure and chronic obstructive pulmonary disease and established teams to support these consumers (Alfred Health, pers. comm., 15 February 2021).

An allied health assistant reviews the HealthLinks data every day and approaches people admitted to hospital who are identified by the algorithm, and discusses their care needs and the services that could benefit them. Alfred Health supports about 400–500 HARP patients at any time. Internal data shows HARP participants experience lower hospital utilisation in the 90 days post-HARP intervention compared with the 90 days pre-HARP intervention (Alfred Health, pers. comm., 15 February 2021).

### Barwon Health

Barwon Health began participating in HealthLinks in March 2017. Barwon Health first established a process through which eligible consumers are identified daily and clinical staff then determine the best model of care for them using Barwon Health's existing service offerings. Barwon Health also undertook a review of its existing community health services and made improvements including:

- developing a stronger working arrangement between different types of services to improve integration and information sharing
- more timely referrals to allied health services
- developing new services for consumers who required an intense short-term intervention
- a new community rehabilitation intervention (CSIRO 2019).

In 2020, Barwon Health trialed another HealthLinks project for people with chronic heart failure. In the program, participants' biometric data was monitored remotely daily and there was regular phone follow-up. Nurses provided additional support and referred participants to other services when required. The program also included a pharmacist who conducted home-based reviews and followed up with medication changes as required (Barwon Health 2019).

Barwon Health's chronic heart failure intervention appears to have resulted in a reduction in length of stay and increased participant satisfaction (Barwon Health 2019).

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## Box 6.3 (continued)

### **Monash Health**

Monash Health began participating in HealthLinks in December 2016 with its Monash Watch program. Monash Watch is a tele-health based monitoring and support program (CSIRO 2019). Interim results indicate Monash Watch has achieved a reduction in bed days and participants are highly satisfied with the program. More information on Monash Watch is presented in chapter 2 (case study 4).

### **Northern Health**

Northern Health began participating in HealthLinks in July 2016. In the first year, it focused on improving its existing processes, including improving discharge processes and its Health Independence Program (which provides community support with the aim of reducing hospital admissions (VIC DHHS 2020c)). It also introduced Medibank's CarePoint program (a care coordination program) for some enrolled consumers (CSIRO 2019).

Northern Health stopped participating in HealthLinks after the first year. However, it joined the program again from July 2020 and is implementing a version of Monash Watch on a larger scale, called Patient Watch (Northern Health 2020, pers. comm., 17 January 2021).

### **Western Health — Western HealthLinks**

Western Health began participating in November 2016. Western HealthLinks is different to the other HealthLinks services as it is partly delivered by Silver Chain, a third party not-for-profit community service provider (CSIRO 2019).

People who participate in the intervention have their care needs assessed using a risk screening tool and are then allocated to the high, medium, or low care intervention groups. The services provided vary between the three groups, but all receive a care plan, are assigned a navigator who provides care coordination and support, and have access to a 24/7 phone service, which is staffed by nurses (CSIRO 2019). Other services provided include advanced discharge and post-discharge support programs, 'hospital-like' clinical care in the home, post-discharge pharmacy review, e-health and advance care planning (Nelson et al. 2018). Where participants require additional clinical support or services, they are provided by other Western Health services or referred to other services as appropriate (CSIRO 2019).

An internal evaluation of the first 12 months of Western HealthLinks, which compared outcomes from the first year of the program with data from the control year (November 2014 to October 2015), found there was a statistically significant reduction in hospital-based activity.

- Average bed days per participant per year decreased by 23%, from 9.7 to 7.5, which resulted in 10.9 fewer beds being used per day.
- Average episodes per participant per year decreased by 17%, from 2.34 to 1.95 (Nelson et al. 2018).

There was also a 33% reduction in average cost per participant per year, from about \$14 200 to \$9500, resulting in a total estimated saving of about \$8.8 million in the first year of the program (Nelson et al. 2018).

About 8000 participants were supported in the first two years of the program, freeing up an average 13.8 beds per day for other consumers and saving the hospital about \$14 million (McArthur 2019).

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In undertaking HealthLinks, both the Victorian Government and participating health services have taken a calculated risk. Estimating the cost outcomes of the HealthLinks trial is a complex exercise due to the nature of health funding, made more difficult by data gaps. HealthLinks uses one funding model to support different service delivery models. Over time, more detailed data may show differences between the cost effectiveness of different service delivery models.

It is to be expected that the effects of a scaled-up HealthLinks model on total healthcare expenditure would be unclear and complex, and would ultimately depend on the health trajectories of participants over the rest of their lives. Among other factors, the magnitude and direction of the effects depend on:

- the costs of HealthLinks' additional investment in preventive care (such as funding to support self-management)
- the costs of services to which HealthLinks' participants are referred. While these may not be funded through HealthLinks, they still use resources. Those costs will depend on the overall pattern of use of such services over time. For example, it is possible that primary care costs for HealthLinks participants may rise initially, but ultimately fall if chronic conditions are managed successfully or in a more timely manner
- the net long-term savings in bed days and associated hospital costs from avoided admissions, taking into account that an avoided admission may lead to use of the hospital capacity by other people (which entails some costs) or that some costs are inescapable in the short run even if an admission is prevented (such as the fixed costs of a hospital). Chapter 1 considers the issues associated with assessing the avoided hospital costs from new models of care
- long-run effects on the costs of building new hospitals and training healthcare staff. More effective treatment of people with chronic disease may take pressure off the growing demand for acute care services.

A HealthLinks-type model encourages at least a cost-neutral outcome in the long run because the costs of care for the entire cohort (including people who receive usual care) cannot be larger than the overall funding allocation. Were this type of model to produce too small an effect on costs, the hospital would make losses.

Nonetheless, it is very difficult to offer reliable estimates of expected changes in costs, and flexible models of funding may well lead to an increase in costs. It is possible that this increase would be moderated over time. However, even if a model like HealthLinks were to lead to increased costs, it is also likely to lead to more efficient use of resources, better targeted care and better outcomes for people – key priorities for the health system.

Looking beyond costs, HealthLinks has several features that make it a promising initiative, including:

- hospitals being given the flexibility to implement models of care that met the needs of their population

- 
- hospitals having time to implement and refine their programs
  - collaboration, through the Communities of Practice, leading to improvements based on shared lessons
  - good data and information helping hospitals to better identify consumers with additional care needs and provide more targeted support.

### Flexible funding has enabled hospitals to provide more innovative care

The HealthLinks program demonstrates that providing hospitals with funding flexibility can enable them to use resources differently and provide innovative person-centred care. Providing a capitation payment rather than ABF allowed hospitals flexibility in the care they provided to consumers, resulting in the provision of more community-based care (CSIRO 2019; Ferrier et al. 2019).

The overall effects of HealthLinks after the first three years are equivocal (VIC DH 2021). There appears to have been more care provided and higher associated costs. However, this could be due to the provision of better care. For example, the reduction in emergency department usage could indicate HealthLinks participants are receiving better planned care. It could also be the case that better integrated care results in the identification of health conditions that would have otherwise been found and treated later.

### Hospitals can provide care tailored to people's needs

Participating hospitals have been given the flexibility to develop bespoke intervention models that best suit the health needs of people in their local area, including providing a range of services outside hospitals, which are generally not covered by ABF (box 6.3) (CSIRO 2019; VIC DHHS 2020d). The CSIRO noted they include:

... redesigning existing services; implementing new interventions such as care coordination services delivered through third-party service providers; using remote patient monitoring technologies to manage patients in their own homes; and establishing an alternative workforce that can provide navigation and early support for patients who are deteriorating. (2019, p. 1)

While the hospitals have different models and have chosen to prioritise different groups of people for intervention, all reported experiencing positive results (box 6.3). This further supports the idea that approaches tailored to local needs lead to better health care (PC 2017d, 2020c).

Allowing services to develop their own models of care also provides a greater variety of evidence and lessons on what does and does not work. Rather than looking at the outcomes of five similar models, hospitals and policy makers have five different HealthLinks interventions, each with its own lessons (box 6.3).

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## Collaboration is an important feature of HealthLinks

Collaboration is a key element to the success of any integrated care initiative (chapter 4) and is demonstrated by the success of the HealthLinks Communities of Practice. While five hospitals are currently participating financially in HealthLinks, another five have joined these services in the Communities of Practice. The Communities of Practice bring together representatives from all the organisations involved, to discuss ideas and exchange knowledge about the programs they are implementing (CSIRO 2019).

The Communities of Practice have been critical to the implementation of HealthLinks. They have worked together to:

- improve the HealthLinks algorithm and design a version that hospitals could run on their own datasets, improving the identification of HealthLinks participants
- better understand the participant cohort, which turned out to have different characteristics than expected (for example, they had a broader range of characteristics and more have mental health and drug and alcohol comorbidities than expected), and rethink the models of care needed to meet the needs of participants
- establish co-operative environments for sharing knowledge and experiences (CSIRO 2019).

## Good quality data facilitates better outcomes

One of the key enablers of HealthLinks has been the algorithm used to identify eligible consumers. The algorithm helps hospitals to improve the identification of consumers who need additional care (CSIRO 2019; VIC DH 2021). For example, while Barwon Health already had hospital avoidance and community services, the algorithm has enabled and improved identification of people who need support. This has contributed to improved consumer outcomes and hospital avoidance, less time spent in hospital and potentially lower costs of care for program participants (Barwon Health, pers. comm., 29 January 2021).

There have been challenges with the algorithm. For example, when the program first began, hospitals often did not receive information from the Victorian Department of Health and Human Services about the person's enrolment in HealthLinks until after discharge. Hospitals also had difficulties integrating it into local systems and believed it excluded some cohorts that could benefit from integrated care (VIC DH 2021). The Communities of Practice and the department worked together to refine the algorithm and adapt it so it could be run on the hospitals' datasets and potential participants could be identified earlier (CSIRO 2019).

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## 6.6 Taking calculated risks to advance funding reform

The results of the innovative funding mechanisms discussed here and supported by other comprehensive reviews (for example, MBS Review Taskforce 2020; PC 2017d; PHCAG 2015) demonstrate the likely benefits of a broader funding reform agenda.

### There is appetite for reform

The Australian, State and Territory governments have committed to making improvements to health funding and are already laying the groundwork to make substantial changes to the funding of care for people with chronic conditions. Under the Addendum to the National Health Reform Agreement 2020–25, governments have agreed to long-term reforms in:

- paying for value and outcomes, including trialling funding and payment reforms at a program and system level, such as blended funding models, pooled funding, bundled payments, refinements to ABF and capitation models and outcomes-based payments
- joint planning and funding at a local level, including encouraging and facilitating collaboration and joint commissioning arrangements between local health organisations, such as PHNs and LHNs (COAG 2020).

As HealthLinks in Victoria and Collaborative Commissioning in New South Wales demonstrate, there are tangible examples of changes being rolled out in different places. The Murray PHN is currently developing a new model of integrated care adapted to regional communities, which will include blended payments (Murray PHN 2019).

There is also work being undertaken on larger-scale changes to funding models. As part of trialling innovative models of care under the Addendum to the National Health Reform Agreement, the Independent Hospital Pricing Authority (IHPA) has been tasked with developing a funding methodology for approval by 2021 that helps states to undertake trials, and does not penalise them, or other parties to the Addendum, for doing so (COAG 2020). IHPA received feedback from government and non-government stakeholders supporting exploration of alternative funding models (IHPA 2019c).

As of November 2020, IHPA was working on a proposal for a new model for funding public hospitals, under which hospitals would receive three different types of funding.

- ABF would cover most patients. It would be used for short-term, one-off episodes of care (for example, appendectomies).
- Bundled payments would be used to fund well-defined care pathways where care is delivered across multiple providers (for example, maternity care and hip replacements).
- Capitation payments would be used to fund care for people with chronic and complex conditions, where the care required and the duration of care will vary from person to person (Downie 2020).

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## **Blended funding models will likely achieve the best outcomes**

The outcomes of the current funding arrangements and the case studies show there are different ways to fund improved care for people with chronic conditions. The Australian and international evidence, and feedback from stakeholders in this project, suggest that using a blended funding system that takes advantage of the benefits of different payment models will be the most effective (PC 2017d; PHCAG 2015; Woolcock 2019). While larger changes to healthcare funding may be desirable, components of a blended funding model can include:

- taking advantage of existing arrangements and the current appetite for innovation, such as introducing pooled funding and more flexible funding for PHNs and LHNs to provide preventive care
- making changes to the MBS to encourage activities that contribute to integrated person-centred care
- exploring other options to facilitate investment in integrated person-centred care, including reviewing restrictions on private health insurers, longer-term trials and funding to scale up successful initiatives.

## **Pooled funding could lead to more efficient and effective investment in chronic disease prevention and management**

As discussed throughout the report, governments, PHNs and LHNs have trialled many initiatives to improve care for people with chronic conditions. And in some cases, PHNs and LHNs (sometimes with other organisations) are working together and pooling funding to implement programs (for example, through Collaborative Commissioning). Despite this, there is insufficient investment in chronic disease prevention and management, with many interventions currently limited in their scope, and only able to offer services to a small number of people.

Moving to pooled funding arrangements between PHNs and LHNs would enable a more comprehensive approach to chronic disease prevention and management. The Commission has previously recommended pooled funding and co-commissioning between PHNs and LHNs in its Productivity Review and Mental Health inquiry (PC 2017d, 2020c).

## **Improving primary and acute care funding**

The MBS could facilitate more integrated care

Making large-scale changes to the MBS would require a fundamental redesign of the entire healthcare system. However, smaller changes to the MBS could improve integrated care for people with chronic conditions, and others.

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The MBS Review Taskforce reviewed the over 5700 items on the MBS (DoH 2019c) and made many recommendations to improve the ability of the MBS to deliver on its four goals of affordable and universal access, best practice health services, value for the patient and value for the health system (MBS Review Taskforce 2020). The General Practice and Primary Care Clinical Committee of the Taskforce reviewed the Chronic Disease Management and other relevant items and suggested changes to make the system more person-centred and improve the effectiveness of the Chronic Disease Management items (GPPCCC 2018).

In addition to the recommendations made by specialist committees, the Taskforce made a number of high-level recommendations (box 6.4).

#### **Box 6.4      Select MBS Review Taskforce recommendations**

- Ensure all future reviews require consumer input and use a consumer framework to enable a consistent and consumer-focused approach.
- Develop clear and consistent systems and processes to better support consumers to gain a comprehensive understanding of their diagnosis, options for treatment and risks and benefits.
- Introduce standardised health outcome and patient reported outcome measures to enhance patient-level decision making and resource planning and allocation.
- Establish appropriate data collection and sharing mechanisms to inform service planning, resource allocation, evidence-based clinical practice, patient consent, and continuous quality improvement.
- Provide transparent publicly available data on the cost and quality of MBS services to allow consumers to more easily make informed choices about their care.
- Evaluate and implement alternative funding models that complement the MBS.
- Support and expand the use of clinical decision support tools at the point of care to integrate MBS item descriptors and enable appropriate use of health services.
- Develop and support GP stewardship, including training, financing and research on a set of quality data metrics, to improve patient outcomes and health system efficiencies.
- Create a single body (an Australian National Institute for Health Research) to provide current health services research to support evidence-based innovation.
- Develop a national framework to leverage the benefits of prevention and primary health care, by building on primary healthcare research in its early stages.
- Create a national infrastructure to support and prioritise controlled trials of novel health policy initiatives, as currently occurs for trials of clinical innovations.
- As a matter of urgency, establish a continuous review mechanism to ensure the MBS remains contemporary and responsive.
- Establish a Medicare Advisory Committee with Terms of Reference to include the current activities of the Medical Services Advisory Committee with an enhanced focus on continuous review and the capacity to provide specific advice for the Minister.

*Source:* MBS Review Taskforce (2020).

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The continuous review mechanism recommended by the Taskforce would allow further changes over time, ensuring the MBS continues to meet its objectives and remains well suited to providing integrated care to people with chronic conditions. Changes to the MBS to facilitate more integrated care suggested in our consultations included:

- making telehealth a permanent feature of the system (which the Australian Government committed to in November 2020 (Hunt 2020))
- allowing practice nurses and other practice staff to access MBS rebates for more services
- allowing more group preventive health consultations
- simplifying rules about where consultations can take place, such as allowing consultations with people who are homeless to take place outside a home or general practice.

### PHNs and LHNs could benefit from more funding flexibility

More flexible funding for PHNs and longer commissioning contracts (as recommended in the Commission’s Mental Health inquiry (PC 2020c)) would help fund innovative primary care prevention.

LHNs could also be provided with more flexibility to invest in initiatives that keep people out of hospital and help them to self-manage their chronic conditions in the community.<sup>22</sup> The potential move to capitation funding for chronic conditions, which is being explored by IHPA, could have significant benefits for LHN flexibility, as has been seen in the HealthLinks project.

Another option is to implement a dedicated funding pool for chronic conditions, as recommended in the 2017 Productivity Review. The Commission recommended a small percentage of ABF be set aside to create a Prevention and Chronic Condition Management Fund that LHNs could use to commission activities ‘that improve population health and service quality, or reduce hospitalisations and broader health expenditures’ (PC 2017d, p. 9).

### **Trials and new programs need to be given the resources to succeed**

Excessively short trials of new models of care — some running for just 12 months — bedevil health care innovation (section 6.2). Funding longer-term trials would allow for effective implementation (such as planning, resource allocation, recruitment of participants, and adapting IT systems) and improved healthcare outcomes from successful measures to be realised.

This also applies to trialling new funding models. Governments have recognised the need for reasonable trial periods for these, as shown by the time given to HealthLinks and

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<sup>22</sup> The *Health Insurance Act 1973* (Cth) limits the capacity of LHNs to directly fund GPs for primary care. There are exemptions in place for some health services such as ACCHSs and some hospitals. The outcomes of this restriction are unclear.

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Collaborative Commissioning projects. And while the timeline for the HCH program was overly ambitious, the Australian Government has extended the trial (HPA 2020).

## **Addressing rules limiting the role of private health insurance in prevention**

Giving private health insurers a greater role in prevention would likely benefit people with chronic conditions. In the past, the Commission has recommended a greater role for private health insurance in prevention (PC 2017d, 2020c). For example, the Productivity Review recommended:

If risk equalisation arrangements are not changed to provide greater rewards for preventative health by private health insurers, then the Australian Government should consider:

- quarantining the net benefits of private insurers' Chronic Disease Management Programs from the risk equalisation pool (subject to the capacity to rigorously assess those net benefits)
- encouraging a cooperative arrangement between insurers for preventative health from which all would benefit. (PC 2017b, p. 71)

## **Better funding alone will not fix the system**

To have the desired effects, any change in funding arrangements needs to be accompanied by strong governance arrangements, improvements in data collection and analysis, and performance monitoring and reporting, so that changes in funding arrangements can be evaluated and further improved where necessary (chapters 4 and 5).

Improvements to funding arrangements also need to be accompanied by other changes including better support for people to self-manage their health and chronic conditions in the community (chapter 2), using the workforce more flexibly (chapter 3), and formalising collaboration with and between organisations and sectors (chapter 4).



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## A Conduct of the study

At its 11 October 2019 meeting, the Council on Federal Financial Relations agreed that the Productivity Commission would prepare case studies on productivity reform within Australia to encourage knowledge sharing.

The purpose of these case studies is to inform and to diffuse knowledge and practices across governments and identify reform opportunities. They are not intended to be an accountability mechanism or a benchmarking exercise that judges the performance of jurisdictions.

This is the second case study conducted by the Commission. It examines innovative primary and preventive health initiatives that aim to improve outcomes and reduce the risk of hospitalisation for people living with chronic conditions.

The Commission held meetings with a range of individuals, service providers, industry bodies and government agencies (table A.1).

The Commission is grateful for the input stakeholders provided throughout this study.

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## Table A.1    **Consultations**

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### *Participant*

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Australian Capital Territory Health Directorate  
Australian Commission on Safety and Quality in Health Care  
Adelaide Primary Health Network  
Alfred Health  
Aboriginal Medical Services Alliance Northern Territory  
Australian Chronic Disease Prevention Alliance  
Australian Government Department of Health  
Australian Medical Association  
Barwon Health  
Brisbane Diamantina Health Partners  
Brisbane North Primary Health Network  
Brisbane South Primary Health Network  
Cairns and Hinterland Hospital and Health Service  
cohealth  
Consumers Health Forum of Australia  
Darling Downs Hospital and Health Service  
Diabetes NSW & ACT  
Diabetes Queensland  
Gold Coast Primary Health Network  
Griffiths, Dr Kalinda — University of New South Wales and Menzies School of Health Research  
Grattan Institute  
Harris, Professor Mark — University of New South Wales  
Homeless Healthcare  
Independent Hospital Pricing Authority  
Institute for Urban Indigenous Health  
Jammal, Dr Walid and Hambleton, Dr Steve — Primary Care Reform Steering Group  
Lambert, Michael — Administrator of the National Health Funding Pool  
Lim, Dr Kean-Seng — Mount Druitt Medical Centre  
Lowitja Institute  
Maple-Brown, Professor Louise — Menzies School of Health Research  
Metro North Hospital and Health Service  
Micah Projects  
Mitchell Institute

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(continued next page)

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**Table A.1** (continued)

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*Participant*

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Monash Health  
Murray Primary Health Network  
Northern Health  
NSW Agency for Clinical Innovation  
NSW Ministry of Health  
NSW Regional Health Partners  
Northern Territory Department of Health  
Office of Preventative Health, NSW Health  
Tasmanian Primary Health Network (Primary Health Tasmania)  
Queensland Department of Health  
Royal Australian College of General Practitioners  
Royal Perth Hospital  
South Australian Department of Health  
South Australian Health and Medical Research Institute — Aboriginal Health Equity  
South Eastern Melbourne Primary Health Network  
South Eastern NSW Primary Health Network (COORDINARE)  
Stocks, Professor Nigel and Gonzalez-Chica, Dr David, the University of Adelaide  
St Vincent's Health Services — Inclusive Health  
Tasmanian Department of Health and Human Services  
The Australian Prevention Partnership Centre  
The Collaborative  
Victorian Department of Health and Human Services  
WA Primary Health Alliance  
Western Australian Department of Health  
Western Health Chronic Disease Alliance  
Western Sydney Diabetes  
Western Sydney Primary Health Network (WentWest)  
Wood, Associate Professor Lisa — School of Population and Global Health, University of Western Australia

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