7.5 Primary health care

Primary health care is the frontline of Australia's health care system. It is typically the first point of contact people have with the health system and includes a broad range of services delivered outside the hospital that generally do not need a referral. Many Australians receive most of their primary health care through their general practitioners (GPs), although primary health care providers also include allied health professionals, community health workers, nurses, pharmacists, dentists, midwives and Aboriginal and Torres Strait Islander health workers and practitioners (Department of Health 2013).

Primary health care providers deliver a wide range of services to the community, including health promotion and prevention, early intervention, treatment of acute conditions and management of chronic conditions. While the bulk of these services are subsidised under Medicare—a universal public insurance scheme—all levels of government, as well as many private and non-government organisations, are involved in funding and delivering primary health care. See Chapter 2.1 'How does Australia's health system work?' for more information.

Primary health care aims to improve the overall health of the population by providing a consistent point of care across people's life span that is tailored to patients' needs and coordinated with the rest of the health system. Effective primary health care can improve outcomes at a lower cost than for hospital and secondary care, and help to avoid unnecessary hospitalisations (OECD 2017).

Australia's primary health care system faces several ongoing challenges. These include inequalities in access to effective and coordinated care, as well as increasing demand (due to an ageing population and rising levels of chronic conditions and risk factors). Yet, despite its importance, the availability of reliable high-quality data on our primary health care system is limited. This makes it difficult to assess its performance with the same rigour as applied for hospital care, and to identify and monitor areas where improvements are needed.

This article provides an overview of Australia's primary health care sector, with a focus on the scale, type and accessibility of GPs, allied health and dental care. It also includes some information on the role that primary health care providers play in referring patients and supporting their access to other non-hospital ('secondary') health care, such as specialist doctors.

What is the scale and nature of primary health care in Australia?

A substantial proportion of health care services in Australia are delivered in primary health care settings. In 2015–16, primary health care accounted for 35% (or $59 billion) of Australia's total health expenditure, while hospital services accounted for 39%, and referred medical services for 10% (AIHW 2017b). See Chapter 2.2 'How much does Australia spend on health care?' for more information.

In 2014–15, 85% of Australians saw at least one GP in the previous 12 months, 47% saw a dentist, and 28% saw another primary health professional such as a pharmacist (8.1%), physiotherapist (8.0%) or an optician or optometrist (6.5%) (ABS 2017b).

Table 7.5.1 presents an overview of the scale and type of primary health care in Australia. Over the past decade, the number of services claimed per person each year has steadily increased for most types of primary health services. This means that, on average, people are receiving more primary health care services than they were 10 years ago. More detailed information about allied health and dental services can be found in Table 7.5.2.

Table 7.5.1: Use of primary health care (and related non-hospital services), 2007–08 and 2016–17

Type of service	Number of services, 2016–17 (million)	Services per 100 people, 2016–17 (rate)	Change in rate since 2007–08 (%)
Primary health care services			
GPs	148.3	602.7	17.5 ↑
Allied health type services	71.2	289.3	43.1 ↑
Dental	45.8	186.1	..
Non-referred practice nurse	2.1	8.5	65.4 ↓
Indigenous-specific primary health care services	3.9	..	84.5 ↑
Prescriptions dispensed (PBS and RPBS)	293.1	1,191.5	..
Non-hospital referred services			
Pathology	120.0	487.9	20.0 ↑
Diagnostic imaging	23.7	96.4	33.5 ↑
Specialists	23.0	93.4	14.8 ↑

.. no data / insufficient data

PBS = Pharmaceutical Benefits Scheme; RPBS = Repatriation Pharmaceutical Benefits Scheme

Note: Excludes services delivered to admitted hospital patients. Upward-facing arrows (↑) and downward-facing arrows (↓) denote a change of at least 5.0% between 2007–08 and 2016–17. Results for Indigenous-specific primary health care services are for 2015–16 and 2008–09 as data for 2016–17 and 2007–08 were unavailable at the time of publication. The percentage increase is for the increase in number of Indigenous-specific primary health care services over the time period, not the change in rate. Detailed notes are available in Supplementary Table S7.5.1.

Sources: ABS 2017a; AIHW 2017a; AIHW analysis of Department of Health Medicare Benefits Schedule (MBS) data 2018; AIHW analysis of Department of Health PBS and RPBS data 2018; Australian Prudential Regulation Authority 2017; Department of Health 2017a; Table S7.5.1.

Table 7.5.1 does not include services that were completely paid for by patients or were subsidised by the Department of Veterans' Affairs (DVA), compensation arrangements or through other publicly funded programs. In 2015–16, 6.1 million GP and specialist attendances, 3.6 million allied health services and 721,000 dental services were processed by the DVA (Department of Human Services 2016). In the same year, it was estimated that 2.6% of GP encounters were not Medicare or DVA-subsidised (Britt, Miller & Henderson et al. 2016). See Chapter 5.6 'Veterans' for more information on veterans' health.

General practitioners

GPs are the first point of contact that many Australians have with the health system for a health concern. There are currently limited national data on the health conditions for which people seek GP care, and the type of treatment given and recommended to patients.

GPs treat a broad range of health issues. Data from the final year of the Bettering the Evaluation and Care of Health (BEACH) Survey of GPs estimated that, in 2015–16, 40% of GP encounters included managing at least one chronic health problem (Britt, Miller & Henderson et al. 2016).

Problems of a general and unspecified nature—such as general check-ups, prescriptions and general immunisations—were managed at 19% of GP visits (Figure 7.5.1).

Since 2006–07, the proportion of GP encounters at which at least one psychological problem was managed has steadily increased, from 10% to 12% in 2015–16, while the proportion of GP encounters where at least one circulatory problem (such as hypertension) was managed decreased from 16% to 14% (Britt, Miller & Bayram et al. 2016).

GPs also provide urgent medical care. In 2016–17, it is estimated that 9.3% of people aged 15 and over saw a GP for urgent medical care (ABS 2017c).

In 2015–16, the main problems managed by GPs were:

- **respiratory** (at **19%** of GP visits)
- **musculoskeletal** (**17%**)
- **skin** (**16%**)
- **circulatory** (**14%**).

Figure 7.5.1: Proportion of GP encounters at which at least one problem was managed, by type of problem, 2015–16

Note: Data are from the BEACH survey of GPs. The type of problem is categorised by the International Classification for Primary Care Version 2 (ICPC-2) chapter. Each chapter contains multiple types of related problems (for example 'Respiratory' includes upper respiratory tract infection and asthma). If two problems from the same chapter were managed at the same encounter, the occasion was counted only once. Categories are not mutually exclusive. Multiple types of problems from different ICPC-2 chapters may have been discussed at each GP encounter. The thin vertical line superimposed over the top end of each bar are 95% confidence intervals.

Source: Britt, Miller & Henderson et al. 2016; Table S7.5.2.

What kind of care do GPs give?

GPs use a wide range of treatments to manage patients' health problems. These include referring patients to other health professionals for assessment, treatment and tests.

The BEACH survey estimated that in 2015–16:

- **52%** of GP visits had at least one medication prescribed
- **42%** of visits involved a clinical or procedural treatment (most commonly advice or education)
- **26%** of visits involved a referral for a pathology, imaging or other type of test
- **15%** of visits involved a referral to specialists, allied health services, hospitals or emergency departments
- **9.3%** of visits involved a recommendation for over-the-counter medications (most commonly paracetamol)
- **7.4%** of visits had a vaccine or medication provided directly to the patient (most commonly the influenza virus vaccine) (Britt, Miller & Henderson et al. 2016).

More than one type of these actions occurred in under half of GP visits (45%) (Britt, Miller & Henderson et al. 2016). See Chapter 7.6 'Medicines in the health system' for more information about medicines.

GPs also play an important role in providing lifestyle advice and education to people, with an emphasis on the 'SNAP' risk factors: smoking, nutrition, alcohol and physical activity (RACGP 2015).

In 2014–15, of people aged 15 and over:

- **14%** discussed reaching a healthy weight with a GP
- **11%** discussed eating healthy food or improving their diet
- **10%** discussed increasing physical activity (ABS 2017b).

In the same year (2014–15), 33% of adult smokers discussed reducing or quitting smoking with a GP, 31% of adults who were obese discussed reaching a healthy weight, and 10% of adults who (on average) drank more than 2 standard drinks per day discussed drinking alcohol in moderation (ABS 2017b).

Enhanced GP care

Medicare supports enhanced GP care of complex patients through Medicare-subsidised Enhanced Primary Care (EPC) services. In 2016−17, 12.6 million EPC GP attendances were provided to 5.2 million people (21% of all Australians) (Department of Health 2017a). These sessions involve GPs conducting thorough health checks for at-risk people, including people aged 75 and over, aged 40–49 with high risk of developing type 2 diabetes, and refugees.

EPC services also include developing and reviewing health plans for people with chronic, complex or mental health conditions. Where patients need multidisciplinary, team-based care from a GP and other health professionals—for example, specialists or allied health providers—the other health professionals are also involved in developing the patient plan. These plans provide a structured way for GPs (and, where relevant, a team of health care providers) to organise their patients' care, keep up-to-date and comprehensive information on their health and care, and help them achieve their treatment goals. The plans also allow eligible patients to access Medicare-subsidised allied health services (Department of Health 2018). See Chapter 7.18 'Coordination of health care' for more information.

Allied health

Allied health professionals include a broad range of health practitioners who are not doctors, nurses or dentists. Allied health professionals include, but are not limited to, Indigenous health practitioners, chiropractors, occupational therapists, optometrists, osteopaths, pharmacists, physiotherapists, podiatrists, psychologists, sonographers and speech pathologists (Allied Health Professions Australia 2017).

There are limited comprehensive data on allied health services in Australia, even though it is estimated that around one-quarter of the population uses them (ABS 2017b). Australians can access subsidised allied health services through their private health insurance if they have general treatment ('ancillary' or 'extras') cover, or through Medicare where eligible (most commonly through EPC services). There has been a marked increase in the use of these allied health services over the past decade (Table 7.5.2). At present, we do not have national data on allied health services accessed outside of private health insurance or Medicare.

Dental services

As for allied health services, there are limited national data on dental services that are not claimed through private health insurance, or (in limited circumstances) through Medicare. Use of dental services claimed through general private health insurance have increased by 35% in the last 10 years (Table 7.5.2). In June 2017, 55% of the population had general private health insurance (Australian Prudential Regulation Authority 2017) and were thus eligible to claim these dental and allied health services.

Table 7.5.2: Use of allied health and dental services, 2007–08 and 2016–17

Type of service	Number of services, 2016–17 (million)	Services per 100 people, 2016–17 (rate)	Change in rate since 2007–08 (%)
Medicare-subsidised allied health services			
Optometry	8.9	36.1	34.9 ↑
Mental health	5.3	21.5	132.1 ↑
Podiatry	3.0	12.3	430.8 ↑
Physiotherapy	2.2	9.0	311.6 ↑
Other	1.7	6.9	58.3 ↑
Total allied health (Medicare)	**21.1**	**85.9**	**91.1** ↑
General private health subsidised allied health services			
Optical	11.6	47.3	54.9 ↑
Physiotherapy	11.5	46.9	34.6 ↑
Chiropractic	9.4	38.1	3.0 ~
Natural therapies	6.2	25.1	133.2 ↑
Other	11.4	46.2	4.3 ~
Total allied health (general private health)	**50.1**	**203.5**	**29.3** ↑
Dental			
General private health insurance	40.6	164.9	35.0 ↑
Child Dental Benefits Schedule and MBS	5.2	21.2	..
Total dental	**45.8**	**186.1**	**..**

.. no data / insufficient data

MBS = Medicare Benefits Schedule

Note: Upward-facing arrows (↑) denote a change of at least 5.0% between 2007–08 and 2016–17. A tilde (~) denotes a change of less than 5.0% between years. Detailed notes are available in Supplementary Table S7.5.3.

Sources: ABS 2017a; AIHW analysis of MBS data set 2018; Australian Prudential Regulation Authority 2017; Department of Health 2017a; DHS 2018; Table S7.5.3.

Access to primary health care

The Australian primary health care system aims to improve health and prevent illness by providing care that is accessible, appropriate, responsive to needs, patient-centred, high quality, safe, coordinated across the health sector, and sustainable (Department of Health 2013). See chapters 7.17 'Patient-reported experience and outcome measures', 7.18 'Coordination of health care' for more information.

Accessible primary health care is important for the early detection and treatment of risk factors and conditions, and improved health outcomes. A person's ability to access appropriate and quality primary health care is influenced by their specific health needs as well as by factors such as where they live, their socioeconomic circumstances, and their cultural background. People living in rural and remote or low socioeconomic areas, Indigenous Australians and people with disability tend to have poorer access to health care and worse health outcomes (Department of Health 2013). See Chapter 5 for information about the inequality of health outcomes across Australia.

The accessibility of primary health care is explored by looking at whether people delayed or did not use care, due to cost or other reasons, and differences in access to bulk billed services, after-hours care and telehealth services. See Chapter 2.3 'Who is in the health workforce?'; Chapter 5.2 'Rural and remote populations' for more information.

How many people faced barriers to primary health care?

In 2016–17, of people aged 15 and over:

26% delayed seeing, or did not see, a GP at least once when needed, 16% of whom reported this was because of cost (4.1% of all people who needed to see a GP, or an estimated 663,000 people)

31% delayed seeing or did not see a dental professional at least once when needed, 60% of whom reported this was because of cost (18% of all people who needed to see a dentist, or 2 million people)

7.3% of people who needed a prescription medication delayed or avoided filling it due to cost (974,000 people) (ABS 2017c).

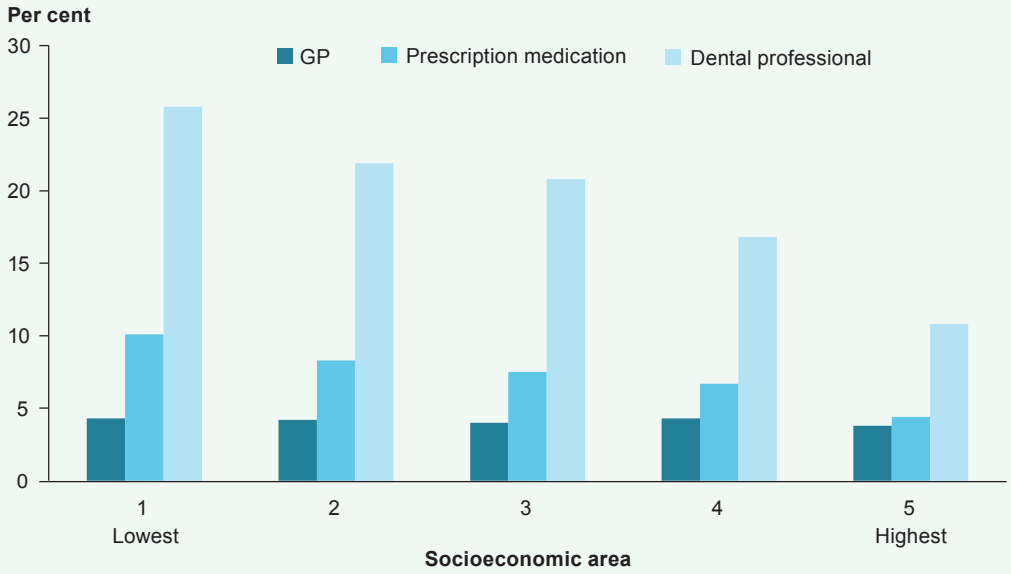
Since 2013–14, the estimated number of people who delayed or did not see a GP at least once when needed has fallen from 4.6 to 4.2 million people (ABS 2017c).

Who faced barriers to primary health care?

There is a 'social gradient' in experiencing cost barriers to dental professionals and prescription medicines—meaning that people living in the lowest socioeconomic areas are more than twice as likely to face cost barriers to both these types of health care compared with people living in the highest socioeconomic areas (Figure 7.5.2). In contrast, across socioeconomic areas, there was little variation in the percentage of people who experienced a cost barrier to GP care (Figure 7.5.2).

Access to care was also worse for people who reported poorer health. They represented around 14% of people aged 15 and over—or 2.7 million people. People who reported their health to be fair or poor were about twice as likely to experience a cost barrier to dental professionals or prescription medicines compared with people who rated their health positively (ABS 2017c).

Figure 7.5.2: Proportion of people aged 15 and over who delayed or did not seek care at least once when needed due to cost, by type of care and socioeconomic area, 2016–17



Note: Socioeconomic areas are based on area of residence using the ABS Index of Relative Socio-Economic Disadvantage.

Source: ABS 2017c; Table S7.5.4.

Access to bulk-billed services

Under Medicare, health providers can choose to bulk-bill their services. This means that the patient has no out-of-pocket costs for the service. In 2016–17, 86% of GP attendances in Australia were bulk-billed. This proportion has increased steadily from a low of 68% in 2003–04 to an all-time high in 2016–17.

The proportion of GP attendances bulk-billed across Australia varies considerably across jurisdictions, ranging from 89% in the Northern Territory to 62% in the Australian Capital Territory (Department of Health 2017a).

Bulk-billing rates have also increased for other kinds of non-hospital Medicare services, particularly non-hospital specialist attendances (32% in 2007–08 to 41% in 2016–17), diagnostic imaging (68% to 84%), and pathology (95% to 99%) (Department of Health 2017a).

After-hours GP care

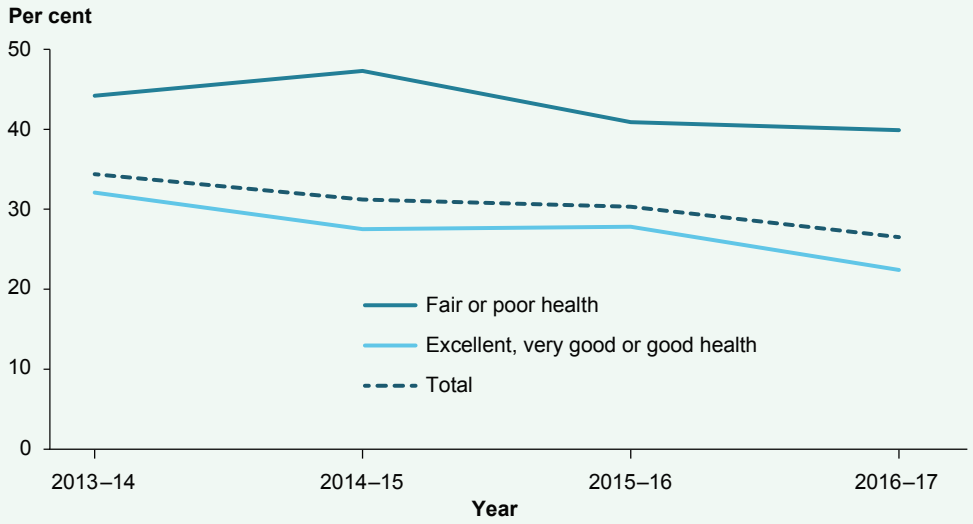
There has been considerable policy emphasis on improving access to after-hours primary health care, including access to after-hours telehealth services.

In 2016–17, 24% of Australians (5.8 million people) claimed 11.9 million after-hours GP services through Medicare. This translates into 49 after-hours GP visits per 100 people over the year. This has steadily increased, from 27 after-hours GP visits per 100 people in 2007–08 (AIHW analysis of MBS data set 2018; Supplementary Table S7.5.5). Access to after-hours GP services varies substantially across the country depending on where people live and the area's socioeconomic disadvantage (AIHW 2017c).

In 2016–17, an estimated 2 million people aged 15 and over reported that they needed to see an after-hours GP in the last 12 months (ABS 2017c). Of these people, 26% (around 528,000 people) reported that they could not do so at least once when needed. This proportion has fallen from 34% in 2013–14.

However, the rate of improvement has not been the same for all people. In 2016–17, the percentage of people who did not see an after-hours GP at least once when needed was highest for people who self-assessed their health as fair or poor (40%), and for people living in *Inner Regional* areas (37%). Since 2013–14, the percentage of people who did not see an after-hours GP when needed has improved markedly for people who rated their health as excellent, very good or good (it reduced from 32% to 22%); it has not improved as well for people who rated their health as 'fair or poor' (44% to 40%, Figure 7.5.3).

Figure 7.5.3: Percentage of people aged 15 and over who did not see an after-hours GP at least once when needed, by self-assessed health status, 2013–14 to 2016–17



Sources: ABS 2014, 2015, 2016, 2017c; Table S7.5.6.

Telehealth

Telehealth is the delivery of health services through information and communication technologies such as videoconferencing. Improving access to telehealth services, particularly for people with chronic and mental conditions, is a key priority for Australian Government and state and territory governments (Australian Digital Health Agency 2017; Department of Health 2017b; Nous Group 2015; NSW Ministry of Health 2016).

Telehealth has the potential to tackle many challenges that Australia's health system faces, including improving access to care for people living in rural and remote areas and for people with mobility issues. Along with opportunities stemming from the revolution in digital health technologies, advances in telehealth can provide a cost-effective way to support people with chronic conditions to more effectively self-manage their health (Box 7.5.1). See Chapter 2.4 'Digital health' for information on digital health solutions.

Box 7.5.1: Tele-monitoring systems

Tele-monitoring systems allow patients to take their own vital signs (for example, blood pressure), and then videoconference or secure message the information to their care coordinators. A 1-year trial of the use of home tele-monitoring systems by patients with chronic conditions by the Commonwealth Scientific and Industrial Research Organisation found that these systems reduced mortality by more than 40%; they also reduced the rate of hospital admissions by 53% (and reduced the rate of length of stay when admitted by almost 76%), and reduced MBS and PBS expenditure by 46% and 26%, respectively (Celler et al. 2016).

Australians can use online and telephone advice at any time via Healthdirect Australia. In 2016–17, healthdirect responded to:

- 746,000 calls to healthdirect helplines
- 75,500 calls to the after hours GP helpline
- 9.7 million online visitors
- 6,800 video calls (Healthdirect Australia unpublished data, January 2018).

In October 2014, healthdirect Video Call was launched. From 2017, healthdirect began supporting health organisations in New South Wales, Victoria and Western Australia to integrate the use of video calls with their everyday delivery of services (Healthdirect Australia 2017).

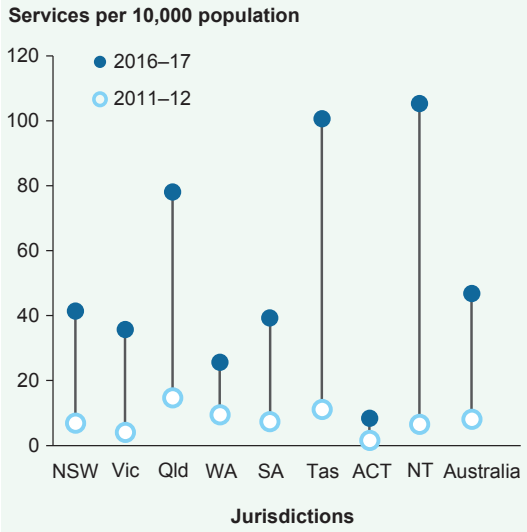
Telehealth video consultations with specialists can also be subsidised through Medicare for people in rural and remote areas, people living in residential aged care facilities and Indigenous Australians. This program expanded in November 2017 to include consultations with allied mental health professionals.

Patient-end telehealth support

A local primary health care worker (such as a GP, nurse or Indigenous health practitioner or worker) may be present with the patient during their video consultation with a specialist to give clinical support.

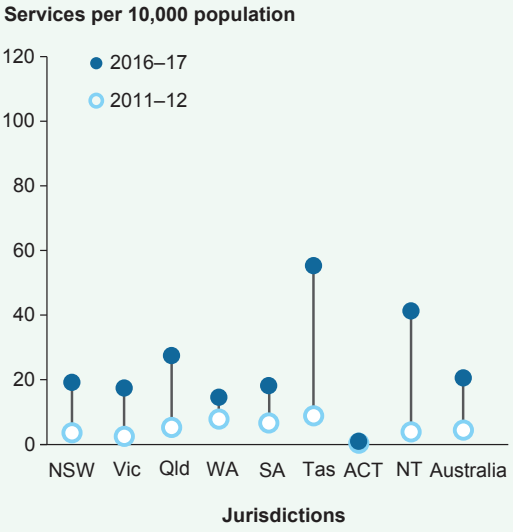
The uptake of Medicare-subsidised video conferencing has increased steadily since the introduction of Medicare rebates and incentives in 2011 (figures 7.5.4, 7.5.5). Across Australia in 2016–17, 65,000 people claimed 115,000 Medicare-subsidised video consultations with specialists and 50,500 'patient-end' support services. This represents a rate of 47 telehealth services and 21 patient-end support services per 10,000 population. These rates were highest in the Northern Territory and Tasmania (AIHW analysis of MBS data set 2018; DHS 2018; supplementary tables S7.5.7, S7.5.8).

Figure 7.5.4: Number of telehealth services per 10,000 population, 2011–12 and 2016–17, by state and territory



Sources: ABS 2017a; DHS 2018; Table S7.5.7.

Figure 7.5.5: Number of patient-end telehealth support services per 10,000 population, 2011–12 and 2016–17, by state and territory



Sources: ABS 2017a; DHS 2018; Table S7.5.8.

What is the AIHW doing?

The AIHW, in partnership with the Australian Bureau of Statistics, conducted the Coordination of Health Care Study. This study fills a national data gap and will inform policy decisions by providing nationally consistent and locally relevant results about patients' coordination and continuity of care. The study involves linking consenting participants' survey results to their MBS, PBS, hospital and emergency department records both 1.5 years before and after the survey was conducted. This will help to identify predictors of poor coordination experiences and the outcomes associated with poor coordination of care—for example, to assess the association between higher versus lower coordination of primary health care among people with chronic health conditions and their use of emergency departments or hospitals. See Chapter 7.18 'Coordination of health care' for more information on this study.

What is missing from the picture?

There are currently limited detailed data on primary health care consultations. From 1998 to 2016, the BEACH surveys of GP activity provided insight into patient demographics, types of problems being managed, and the type of care provided by GPs. However, the 2015–16 BEACH data collection was the last survey to be done.

Although Medicare services data provide some insight into variation in use of primary health care across Australia, they do not include information about why patients visit health professionals, their diagnosis, treatment, test results or referrals for further care.

There are also limited national data for ambulance, aeromedical, allied health, dental or state-funded community health services.

Without these data, it is difficult to assess the appropriateness, cost-effectiveness, safety, quality and accessibility of primary health care. For example, without data on the reason for a consultation, prescription or test, it is difficult to define 'appropriate' use and hence understand the scale and cost of duplicate and unnecessary prescribing, imaging and treatments. It is also difficult to attribute improvements in health outcomes to the primary health care system, as responsibility for health outcomes is across the health care sector and there is often a lag time between intervention and improved health outcome.

Developments are now underway to improve the completeness and use of primary health care data. These include:

- a commitment to develop a national primary care data set. This will help to measure and monitor primary health care performance at a local, regional and national level to enable research, inform policy, and identify regionally specific issues and best-case practices to better understand health and health care in the community
- ongoing reviews and consolidation of national reporting frameworks (see Chapter 1.4 'Indicators of Australia's health')
- implementation of Australia's National Digital Health Strategy
- developments in data linkage capacity. Data linkage can improve the understanding of patient outcomes and pathways through the health system
- developments in ensuring the anonymity and secure transfer of data.

Where do I go for more information?

Local level primary health care data are available at <www.myhealthycommunities.gov.au>.

Information about Indigenous people's access to primary health services can be found in *Aboriginal and Torres Strait Islander health organisations: online services report—key results 2015–16*.

References

ABS (Australian Bureau of Statistics) 2014. Patient experiences in Australia: summary of findings, 2013–14. ABS cat. no. 4839.0. Canberra: ABS.

ABS 2015. Patient experiences in Australia: summary of findings, 2014–15. ABS cat. no. 4839.0. Canberra: ABS.

ABS 2016. Patient experiences in Australia: summary of findings, 2015–16. ABS cat. no. 4839.0. Canberra: ABS.

ABS 2017a. Australian demographic statistics, June 2017: Table 4. Estimated resident population, states and territories (number). ABS cat. no. 3101.0. Canberra: ABS.

ABS 2017b. National Health Survey: health service usage and health related actions, Australia, 2014–15. ABS cat. no. 4364.0.55.002. Canberra: ABS.

ABS 2017c. Patient experiences in Australia: summary of findings, 2016–17. ABS cat. no. 4839.0. Canberra: ABS.

AIHW (Australian Institute of Health and Welfare) 2017a. Aboriginal and Torres Strait Islander health organisations: online services report—key results 2015–16. Aboriginal and Torres Strait Islander health services report no. 8. Cat. no. IHW 180. Canberra: AIHW. Viewed 21 January 2018, <https://www.aihw.gov.au/getmedia/3d8f3435-4fe4-4580-ab32-e1608bbb6b9c/20797.pdf.aspx?inline=true>.

AIHW 2017b. Health expenditure Australia 2015–16. Health and welfare expenditure series no. 58. Cat. no. HWE 68. Canberra: AIHW.

AIHW 2017c. MyHealthyCommunities web update: Medicare Benefits Schedule—GP and specialist attendances and expenditure in 2015–16. Canberra: AIHW.

AHPA (Allied Health Professions Australia) 2017. What is allied health? Melbourne: AHPA. Viewed 20 February 2018, <https://ahpa.com.au/what-is-allied-health/>.

Australian Digital Health Agency 2017. Australian Digital Health Agency annual report, 2016–17. Sydney: Australian Digital Health Agency.

Australian Prudential Regulation Authority 2017. Benefit trends—June 2017: ancillary benefits [Microsoft Excel spreadsheet]. Private health insurance statistical trends. Viewed 17 November 2017, <http://www.apra.gov.au/PHI/Publications/Pages/Statistical-Trends.aspx>.

Britt H, Miller GC, Bayram C, Henderson J, Valenti L, Harrison C et al. 2016. A decade of Australian general practice activity 2006–07 to 2015–16. General practice series no. 41. Sydney: Sydney University Press. Viewed 21 January 2018, <https://ses.library.usyd.edu.au/handle/2123/15514>.

Britt H, Miller GC, Henderson J, Bayram C, Harrison C, Valenti L et al. 2016. General practice activity in Australia 2015–16. General practice series no. 40. Sydney: Sydney University Press. Viewed 21 January 2018, <https://ses.library.usyd.edu.au/handle/2123/15514>.

Celler B, Varnfield M, Sparks R, Li J, Nepal S, Jang-Jaccard J et al. 2016. Home monitoring of chronic disease for aged care. Canberra: Australian e-Health Research Centre, CSIRO. Viewed 21 January 2018, <https://www.csiro.au/en/Research/BF/Areas/Digital-health/Improving-access/Home-monitoring>.

Department of Health 2013. National Primary Health Care Strategic Framework. Viewed 21 January 2018, <http://www.health.gov.au/internet/main/publishing.nsf/Content/6084A04118674329CA257BF0001A349E/$File/NPHCframe.pdf>.

Department of Health 2017a. Annual Medicare statistics—financial year 1984–85 to 2016–17 [Excel spreadsheet]. Annual Medicare statistics. Viewed 9 November 2017, <http://www.health.gov.au/internet/main/publishing.nsf/content/annual-medicare-statistics>.

Department of Health 2017b. Budget to deliver telehealth boost for rural psychological services. Viewed 21 January 2018, <http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2017-hunt035.htm>.

Department of Health 2018. Medicare Benefits Schedule book, effective 01 January 2018. Canberra: Department of Health.

DHS (Department of Human Services) 2016. Overview of the Department of Veterans' Affairs claiming channels—financial year 2015–16 [Excel spreadsheet]. Overview of the Department of Veterans' Affairs claiming channels. Viewed 24 January 2018, <https://data.gov.au/dataset/58ebeb4e-6235-407d-9756-4a7d89ec4500>.

DHS 2018. Medicare Australia statistics. Canberra: DHS. Viewed 30 January 2018, <http://medicarestatistics.humanservices.gov.au/statistics/mbs_item.jsp>.

Healthdirect Australia 2017. Annual report: business highlights 2016–17. Sydney: Healthdirect Australia.

Nous Group 2015. Strategic review of telehealth in NSW: final report. Viewed 21 January 2018, <http://www.health.nsw.gov.au/telehealth/Documents/strategic-review-of-telehealth-in-NSW.PDF>.

NSW Ministry of Health 2016. NSW Health Telehealth Framework and Implementation Strategy: 2016–2021. Viewed 21 January 2018, <http://www.health.nsw.gov.au/telehealth/Publications/NSW-telehealth-framework.pdf>.

OECD (Organisation for Economic Co-operation and Development) 2017. Health at a glance 2017: OECD indicators. Paris: OECD.

RACGP (The Royal Australian College of General Practitioners) 2015. Smoking, nutrition, alcohol, physical activity (SNAP): a population health guide to behavioural risk factors in general practice. 2nd edn. Melbourne: RACGP.