



# Survey of Health Care

**Australia**

**2016**

**Catalogue number 4343.0**

AUSTRALIAN BUREAU OF STATISTICS

EMBARGO: 11.30AM (CANBERRA TIME) WEDNESDAY 20 SEPTEMBER 2017

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## **CONTENTS**

Media Release .....	1
Preface .....	2
Abbreviations .....	3
Key Findings .....	4
Commentary .....	6
Explanatory Notes.....	22
Technical Note .....	30
Glossary.....	32
Quality Declaration - Summary .....	34
About this release .....	36

## MEDIA RELEASE

20 September 2017

Embargoed: 11.30 am (Canberra time)

114/2017

### Over 45s report positive experiences with Australia's health care system

Today the Australian Bureau of Statistics (ABS) and the Australian Institute of Health and Welfare (AIHW) jointly present information from the Survey of Health Care, Australia, 2016. The survey which forms part of the broader Coordination of Health Care study was funded by the AIHW and conducted by the ABS.

This survey explored the experiences of people aged 45 years and over who had seen a GP in the previous 12 months with a focus on coordination of health care, including information transfer between GPs, specialists and hospitals in Australia. Coordination of care is important for quality health care and has been shown to improve people's health outcomes.

"Overall, the majority of people believe they are well-informed about their medical care or treatment but there are differing levels of satisfaction" said Ms Louise Gates, Director of Health at the ABS.

"Almost all Australians (98 per cent) aged 45 years and over who had seen a GP in the previous 12 months had a usual GP or a usual place of care. Nearly two thirds (65 per cent) of these people had long relationships with their GPs – having seen them for five years or more," added Ms Gates. "Also, around nine in ten (88 per cent) reported that their usual GP or others in their usual place of care involved them in decisions and explained test results in a way they could understand."

Dr Lynelle Moon, Head of the Health Group at AIHW commented "Most people (92 per cent) reported they had received enough information, or did not need information, about their care or treatment from a health professional.

"People also reported on the level of information transfer between their usual GP and specialist doctors. More than three quarters (76 per cent) said their usual GP or others in their usual place of care seemed informed of the care they received from a specialist, but 9 per cent said their GP or usual place of care did not seem informed or did not know about the specialist care until the patient told them.

"In comparison, information transfer wasn't as strong following a visit to the emergency department. More than three in five people (62 per cent) felt their usual GP or others in their usual place of care seemed informed about their follow up needs or medication changes after their most recent visit to the emergency department, while 19 per cent did not" added Dr Moon.

Further information can be found in Survey of Health Care, Key Findings, 2016 (cat. no. 4343.0), available for free download from the ABS website, <http://www.abs.gov.au>.

### Media Note

- All information in this survey is about persons aged 45 years and over who had at least one appointment with a GP in the 12 months between November 2014 and November 2015. Please refer to the [Explanatory Notes](#).
- When reporting ABS data, the Australian Bureau of Statistics (or ABS) must be attributed as the source.
- For media requests and interviews, contact the ABS Communications Section on 1300 175 070 (8.30am - 5pm Mon-Fri).
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## PREFACE



**Australian Government**

**Australian Institute of Health and Welfare**

The Coordination of Health Care Study was developed to fill an important data gap and provide information on patient's experiences of coordination of care across Australia. It examines coordination and continuity of care in detail, and provides nationally consistent and local-level information on experiences with health care providers.

This publication is the first release of results on health care experience of Australians from the 2016 Survey of Health Care (SHC). It is planned that future stages of the CHC Study will link the SHC with administrative data from the Medicare Benefits Schedule (MBS), Pharmaceutical Benefits Scheme (PBS), Repatriation Pharmaceutical Benefits Scheme (RPBS), and hospital and emergency department data including admissions to hospital and visits to emergency departments.

The SHC (first component of the Study), focuses on understanding experiences with coordination and continuity of care by people aged 45 and over who had at least one general practitioner (GP) visit in the 12 months prior to the selection of the sample (November 2014 to November 2015). It is designed to provide robust samples from each of the 31 Primary Health Network (PHN) areas. The Study oversampled high users of GP visits (those who had seen a GP 12 or more times in the past 12 months) as these people are more likely to have complex and chronic conditions, and have experiences with multiple providers including hospitals, specialists, and allied health professionals.

The survey and study are funded by the Australian Institute of Health and Welfare (AIHW), and conducted by the Australian Bureau of Statistics (ABS). This publication was jointly prepared and released by the ABS and the AIHW.

## ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
ASGS	Australian Statistical Geographical Standard
Aust	Australia
CHC	Coordination of Health Care
DHS	Department of Human Services
ED	hospital emergency department
GP	general practitioner
IRSAD	Index of Relative Socioeconomic Advantage and Disadvantage
MBS	Medicare Benefits Schedule
MEDB	Medicare Enrolment Database
MoE	Margin of Error
NHS	National Health Survey
NSW	New South Wales
NT	Northern Territory
PBS	Pharmaceutical Benefits Scheme
PEX	Patient Experience Survey
PHN	Primary Health Network
PBS	Pharmaceutical Benefits Scheme
Qld	Queensland
RPBS	Repatriation Pharmaceutical Benefits Scheme
RSE	relative standard error
SA	South Australia
SA3	Statistical Area Level 3
SA4	Statistical Area Level 4
SEIFA	Socio-economic Indexes for Areas
SHC	Survey of Health Care
Tas	Tasmania
TIS	Translation and Interpreting Service
Vic	Victoria
WA	Western Australia

## KEY FINDINGS

All information in this publication refers to persons aged 45 years and over who had at least one general practitioner (GP) visit in the 12 months between November 2014 and November 2015.

This publication presents information from the Survey of Health Care, Australia, 2016, which forms part of the wider Coordination of Health Care study. The survey was funded by the Australian Institute of Health and Welfare (AIHW) and conducted by the Australian Bureau of Statistics (ABS).

The Survey of Health Care was conducted between April and June 2016. It collected data on respondents' experiences with health care professionals and the health care system, including:

- GPs
- usual GP and usual place of care
- specialist doctors
- medications, tests, x-rays and scans
- hospital emergency department (ED) visits
- hospital admissions
- health professionals

Patient experience information is valuable to users of health services and those aiming to improve the health system. Good patient experiences are one aspect of high quality health care. High quality health care leads to better health outcomes, and reduces barriers to accessing health services. The availability of GPs and other health services as well as coordinated health care are all important factors in ensuring an accessible, high quality health care system for all Australians.

At the national level, the results showed that in 2016:

### GPs:

- Just over one in seven people (15%) saw a GP for their own health 12 or more times in the last 12 months. People aged 65 years and over were almost twice as likely to have seen a GP 12 or more times compared with those aged 45 to 64 years (21% compared with 11%).
- Around one in six people (17%) reported waiting longer than they felt acceptable to get their most recent GP appointment. Those aged 45 to 64 years were more likely to have reported waiting longer than they felt acceptable than those aged 65 years and over (20% compared with 12%).

### Usual GP and usual place of care:

- Almost all people (98%) reported having a usual GP or a usual place of care. Of these,
  - 65% reported that they had been going to their usual GP for five years or more.
  - 88% reported that their usual GP or others in their usual place of care always or usually involved them in decisions about their health care.
  - 88% reported that their usual GP or others in their usual place of care always or usually explained test results in a way that could be understood.

### Specialist doctors:

- Over half (55%) of people saw a specialist doctor in the last 12 months.
- Of these,
  - around one in five people (22%) reported waiting longer than they felt acceptable. This was more common for people aged 45 to 64 years (27%) than those aged 65 years and over (18%).
  - 87% reported that their specialist doctor always had their medical information or test results available.
  - 95% reported that their specialist doctor explained treatment choices in a way that could be understood.
  - 76% reported that their usual GP or others in their usual place of care seemed informed about the care they received from a specialist doctor.
  - Almost one in ten people (9 per cent) reported their usual GP or others in their usual place of care did not seem informed or did not know about the specialist care until the patient told them.

**Medications, tests, x-rays and scans:**

- 82% of people took at least one type of medication (including vitamins and pain killers) on a regular or ongoing basis.
- 71% of people had a test, x-ray or scan in the last 12 months. Of these, about nine in ten (89%) indicated that their results were always available at their scheduled health care appointment.

**ED:**

- One in six people (18%) reported having been to an ED for their own health in the last 12 months.
- Of these,
  - 64% had been once.
  - 32% had been at least twice.
  - 62% felt their usual GP or others in their usual place of care seemed informed about their follow up needs or medication changes after their most recent ED.
  - 19% reported that their usual GP or others in their usual place of care did not seem informed or did not know about their follow up needs or medication changes after their ED visit.

**Hospital admissions:**

- Nearly one in five people (22%) were admitted to hospital in the last 12 months.
- Of these,
  - 32% were admitted to hospital more than once.
  - 66% reported that their usual GP or others in their usual place of care seemed informed about their follow up needs or medication changes after their most recent hospital admission.
  - 11% reported that their usual GP or others in their usual place of care did not seem informed of or did not know about their follow up needs or medication changes after their most recent hospital admission until the patient told them.
  - 15% indicated that they had no further follow up needs or medication changes, or they did not see their usual GP or go to their usual place of care after their hospital admission.

**Health professionals:**

- Most people (92%) reported that they received enough information, or did not need information, about their care or treatment from a health professional. Those aged 65 years and over were more likely to report this than those aged 45 to 64 years (93% compared with 91%).
- The majority (91%) of people reported that they had a health professional who had a good understanding of their health, health care needs and preferences, or that they did not have any health care needs or preferences. Again, this was more commonly reported by those aged 65 years and over than those aged 45 to 64 years (93% compared with 90%).



## COMMENTARY

### GENERAL PRACTITIONER

All information in this publication refers to persons aged 45 years and over who had at least one general practitioner (GP) visit in the 12 months between November 2014 and November 2015.

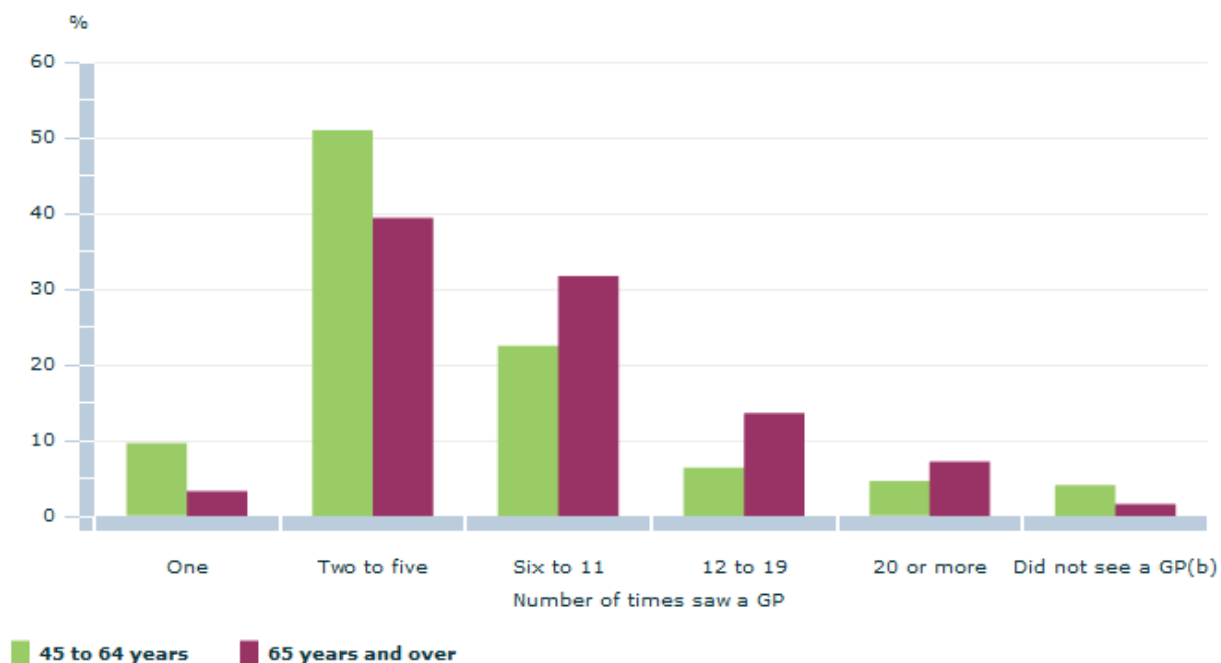
General practitioners (GPs) are widely used in Australia and are many Australians' first point of contact for health issues. People access GPs for a variety of reasons including short-term illnesses, preventive health practices and management of long term health conditions. It is therefore important that people are able to access a GP in a timely manner and receive care that meets their needs, both in terms of ease of access and the quality of care provided. This chapter presents data on people who saw a GP, or needed to see a GP but did not, for their own health in the last 12 months. Respondents were asked about the frequency of their visits, the services they had used, waiting times, barriers to accessing care as well as their experience with their GP.

Frequency of use varied considerably with:

- 15% seeing a GP 12 or more times
- 26% seeing a GP 6 to 11 times
- 46% seeing a GP 2 to 5 times
- 7% seeing a GP once only and
- 3% who did not see a GP (these people saw a GP in the 12 months prior to selection (November 2014 to November 2015) but did not see a GP in the 12 months prior to responding to the survey). See the Explanatory Notes for more information.

People aged 65 years and over were almost twice as likely to have seen a GP 12 or more times compared with those aged 45 to 64 years (21% compared with 11%).

Proportion of persons 45 years & over, number of times saw a GP for own health in the last 12 months(a)



Australian Bureau of Statistics

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**Footnotes** (a) For persons aged 45 years and over who had at least one GP visit in the 12 months between November 2014 and November 2015

(b) Saw a GP in the 12 months prior to selection (November 2014 to November 2015) but did not see a GP in the 12 months prior to responding to the survey (see the Explanatory Notes for more information)

**Source:** *Survey of Health Care: Summary of Findings*

## WAITING TIMES

Around one in six people (17%) reported waiting longer than they felt acceptable to get their most recent GP appointment. Those aged 45 to 64 years were more likely to have reported waiting longer than they felt acceptable than those aged 65 years and over (20% compared with 12%).

## AFTER HOURS GP CARE

After hours GPs provide care outside normal GP opening hours. For this study, after hours includes some or all weekdays after 6pm, Saturdays after 12pm, Sundays and public holidays. This availability may alleviate pressure on the wider health system, as people with non-life threatening illnesses or injuries are able to see an after hours GP instead of going to an emergency department.

Around one in eight (12%) people saw a GP after hours. People aged 45 to 64 years were more likely to see a GP after hours than those aged 65 years and over (14% compared with 8%).

## EMOTIONAL OR PSYCHOLOGICAL HEALTH

Around one in five people (22%) spoke to their GP about their emotional or psychological health. Women were more likely than men to have spoken to their GP about their emotional and psychological health (26% compared with 18%). Those aged 45 to 64 years were more likely to have spoken to their GP about their emotional or psychological health than those aged 65 years and over (26% compared with 17%).

Respondents were asked about a range of activities their GP may have undertaken for their emotional or psychological health. Of those who spoke to a GP for their emotional or psychological health, almost half (48%) reported being prescribed medications, two in five (39%) reported being provided with counselling and just over one quarter (29%) reported being referred to a psychologist, psychiatrist or counsellor.

People aged 65 years and over were more likely to have indicated they were prescribed medications for their emotional or psychological health compared with people aged 45 to 64 years (52% compared with 45%). In contrast, people aged 65 years and over were less likely to indicate they were referred to a psychologist, psychiatrist or counsellor compared with people aged 45 to 64 years (21% compared with 33%).

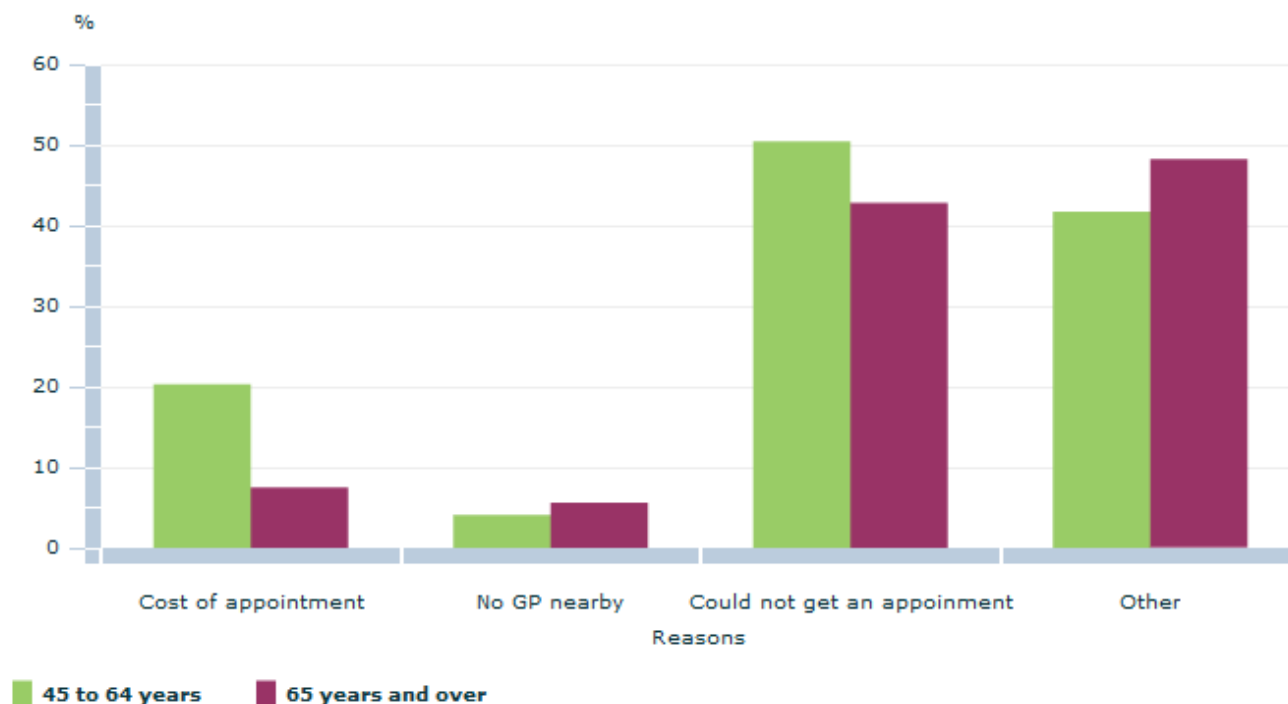
## BARRIERS

Access to services is an important contributor to good health. Timely access to GPs can decrease burden on other parts of the health system and potentially prevent hospitalisations<sup>1</sup>. Almost one quarter of people (23%) indicated that there was a time they felt they needed to see a GP but did not go. People aged 45 to 64 years were more than twice as likely not to see a GP when they felt they needed to, compared with people aged 65 years and over (30% compared with 14%).

The most common reason people indicated for not seeing a GP when they felt they needed to was because they could not get an appointment (49%). This was more common for those aged 45 to 64 years than those aged 65 years and over (50% compared with 43%). Women were more likely to indicate they could not get an appointment with a GP when they felt they needed to than men (52% compared with 44%).

The cost of an appointment was another reason people indicated as to why they did not see a GP when they felt they needed to. Those aged 45 to 64 years were more than twice as likely to indicate the cost of an appointment as a reason for not seeing a GP when they felt they needed to than those aged 65 years and over (20% compared with 8%).

Proportion of persons 45 years & over, reasons for not seeing a GP when needed(a)



Australian Bureau of Statistics

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**Footnotes** (a) For persons aged 45 years and over who had at least one GP visit in the 12 months between November 2014 and November 2015

**Source:** *Survey of Health Care: Summary of Findings*

<sup>1</sup> Australian Institute of Health and Welfare, 'Admitted patient care 2015–16: Australian hospital statistics' <http://www.aihw.gov.au/publication-detail/?id=60129559537>; last accessed 15/09/2017.

## USUAL GENERAL PRACTITIONER AND USUAL PLACE OF CARE

All information in this publication refers to persons aged 45 years and over who had at least one general practitioner (GP) visit in the 12 months between November 2014 and November 2015.

A usual GP is the GP that people go to for most of their health care. A usual place of care is the usual place that people go if they are sick or need advice about their health. Examples of a usual place of care include a clinic with GPs only or with GPs and other health professionals, a community health centre or an Aboriginal medical service. Respondents were asked about:

- the frequency of their visits to their usual place of care
- the type of usual place of care
- the hours of their usual place of care
- their experience with their usual GP or others in their usual place of care.

Almost all people (98%) reported having a usual GP or a usual place of care.

Almost two thirds (65%) of people who had a usual GP indicated that they had been going to their usual GP for five or more years. This was more common for those aged 65 years and over (68%) than those aged 45 to 64 years (62%).

Around half (52%) of those with a usual place of care indicated that their usual place of care was a clinic with GPs only, followed by 42% whose usual place of care was a clinic with GPs and other health professionals.

Just over one third (35%) indicated that their usual place of care has after hours care (after hours includes some or all weekdays after 6pm, Saturdays after 12pm, Sundays and public holidays). One third (36%) stated that their usual place of care does not have a GP available to visit or talk with after hours, while 28% did not know whether their usual place of care has a GP available to visit or talk with after hours.

## EXPERIENCE WITH USUAL GP OR OTHERS IN USUAL PLACE OF CARE

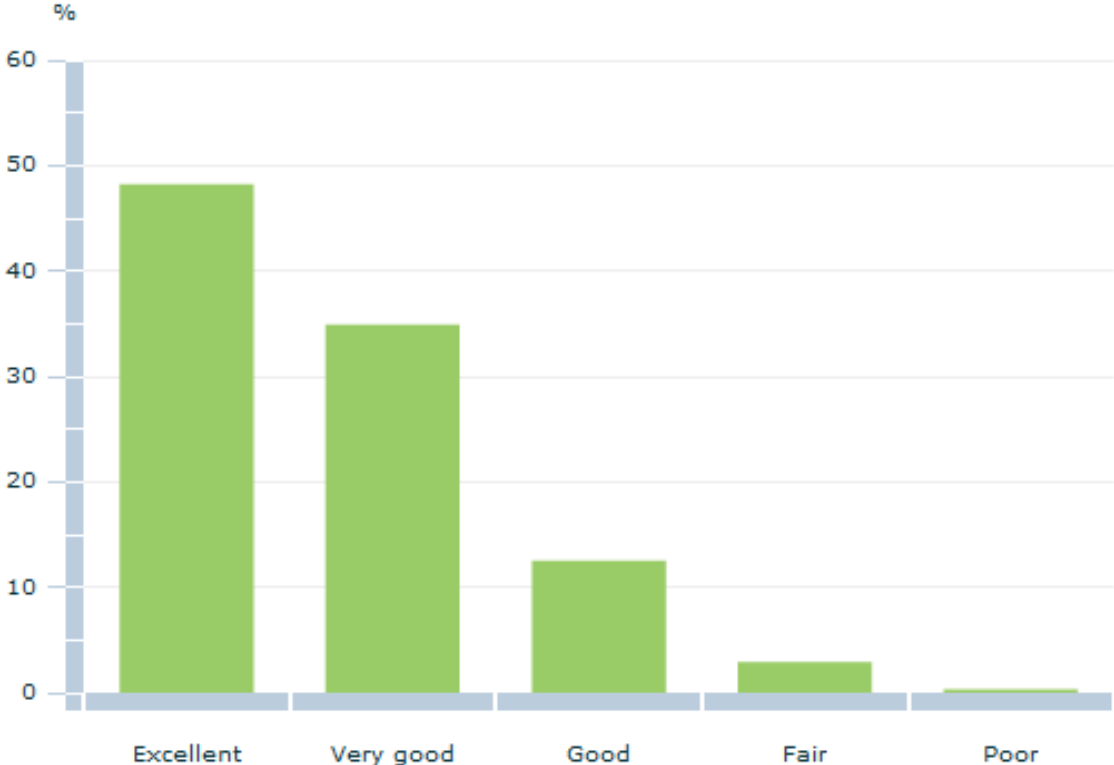
The way that a patient is treated by a health professional is an important aspect of their satisfaction with their health care. All respondents who had a usual GP and/or usual place of care were asked about their perceptions of how they were treated by their usual GP or others in their usual place of care.

Most people were positive about their experience with their usual GP or others in their usual place of care. Over four in five people (85%) indicated that their usual GP or others in their usual place of care were always or usually aware of their health care history. Nearly nine in ten people (88%) reported that their usual GP or others in their usual place of care always or usually involved them in decisions about their health care. Similarly, 88% of people reported that their usual GP or others in their usual place of care always or usually explained test results in a way that could be understood.

Most people (80%) stated that they were either completely comfortable or very comfortable talking with their usual GP or others in their usual place of care about their personal problems relating to their health. Those aged 65 years and over were more likely to report being completely comfortable or very comfortable talking about personal problems with their usual GP or others in their usual place of care than those aged 45 to 64 years (85% compared with 76%).

When asked to assess the quality of health care received from their usual GP or usual place of care in the last 12 months, 96% of people reported positively (excellent, very good or good). Almost one in two people (48%) indicated the quality was excellent, just over one in three (35%): very good and one in eight: good (13%).

**Proportion of persons 45 years & over, self assessed quality of health care from usual GP or usual place of care(a)**



Australian Bureau of Statistics

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**Footnotes** (a) For persons aged 45 years and over who had at least one GP visit in the 12 months between November 2014 and November 2015

**Source:** *Survey of Health Care: Summary of Findings*

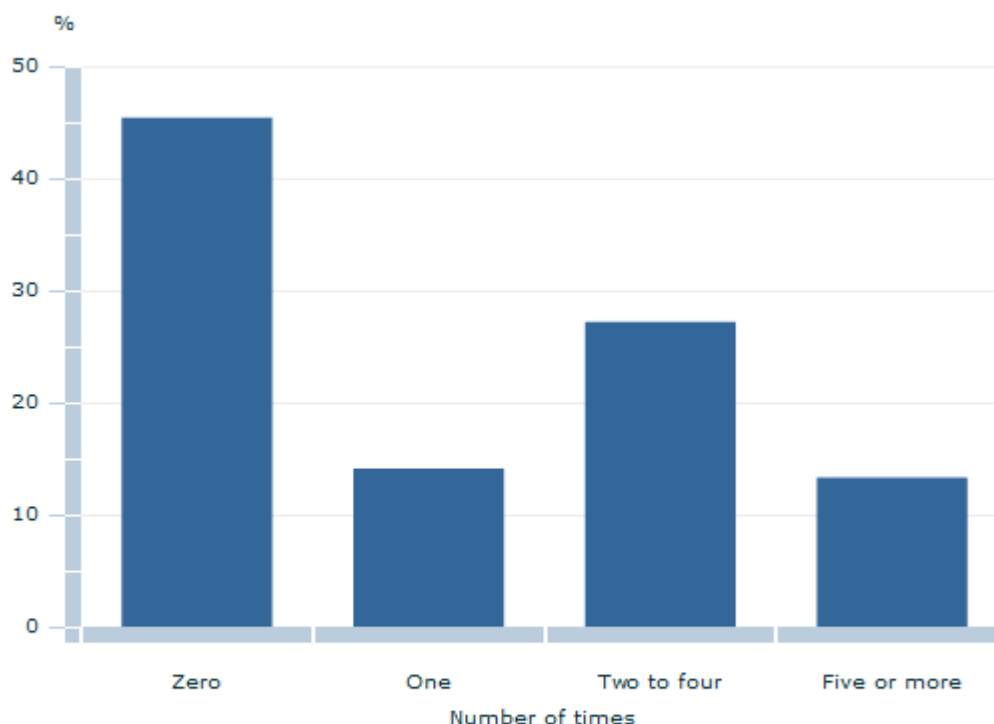
## SPECIALIST DOCTORS

All information in this publication refers to persons aged 45 years and over who had at least one general practitioner (GP) visit in the 12 months between November 2014 and November 2015.

Specialist doctors play a crucial role in the management and treatment of health conditions where they have specialist knowledge and skills. Examples of specialist doctors include dermatologists, cardiologists, neurologists and gynaecologists. Visits to specialist doctors require a referral from a GP or other doctors. Respondents were asked about the frequency of their visits, as well as the services they had used, waiting times, barriers to accessing care and their experience with the specialist doctors.

More than half of people (55%) saw a specialist doctor for their own health in the last 12 months. Of those who saw a specialist doctor, 26% went once, 50% went two to four times and 23% went five or more times.

Proportion of persons 45 years & over, number of times saw a specialist doctor(a)



Australian Bureau of Statistics

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**Footnotes** (a) For persons aged 45 years and over who had at least one GP visit in the 12 months between November 2014 and November 2015

**Source:** *Survey of Health Care: Summary of Findings*

It was more common for people aged 45 years and over to see two or more (51%) different specialist doctors in the last 12 months than to see only one (45%).

## WAITING TIMES

Of those who saw a specialist doctor in the last 12 months, around one in five people (22%) reported waiting longer than they felt acceptable. This was more common for those aged 45 to 64 years (27%) than those aged 65 years and over (18%).

## BARRIERS

Specialist doctors can have long wait times, high fees or be located far away, creating barriers to people accessing specialist care. There are a range of reasons why someone may not go to a specialist doctor when needed. Respondents in this survey were asked to select all reasons from a list, with the following choices:

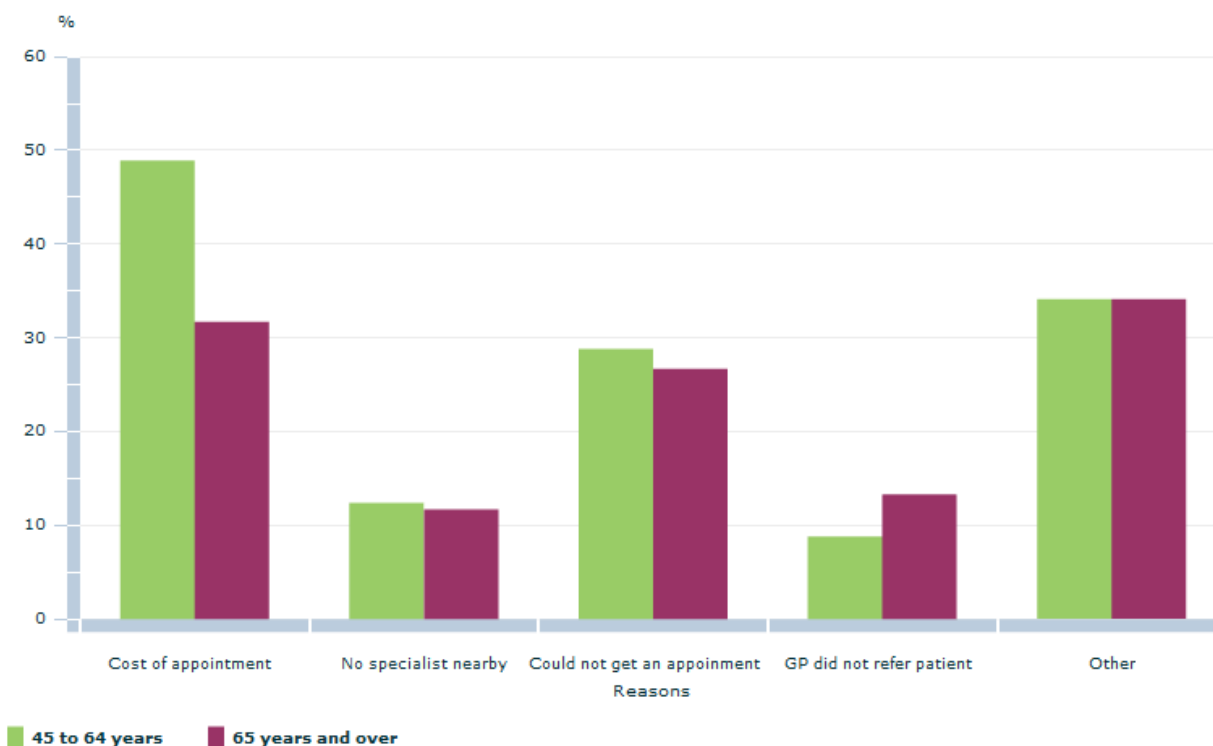
cost of appointment, no specialist doctor nearby, could not get an appointment when required, GP did not refer patient and other.

One in eight people (13%) indicated there was a time in the last 12 months when they felt they needed to see a specialist doctor but did not go. Those aged 45 to 64 years were twice as likely not to see a specialist doctor when they felt they needed to, compared with those aged 65 years and over (16% compared with 8%).

Nearly half (45%) of respondents indicated that the cost of the appointment was a reason they did not see a specialist doctor when they felt they needed to. Just over one quarter (28%) indicated that they could not get an appointment when required and one in eight (12%) stated there was no specialist doctor nearby.

Those aged 45 to 64 years were more likely not to see a specialist doctor when they felt they needed to due to cost of appointment than those aged 65 years and over (49% compared with 32%). More women than men indicated the cost of an appointment as a reason for not seeing a specialist doctor when they felt they needed to (49% compared with 39%).

Proportion of persons 45 years & over, reasons for not seeing a specialist doctor when needed(a)



Australian Bureau of Statistics

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**Footnotes** (a) For persons aged 45 years and over who had at least one GP visit in the 12 months between November 2014 and November 2015

**Source:** *Survey of Health Care: Summary of Findings*

A similar proportion of people aged 45 to 64 years (29%) and 65 years and over (27%) indicated they did not see a specialist doctor when they felt they needed to because they could not get an appointment when required.

## EXPERIENCE WITH SPECIALIST DOCTORS

All respondents who saw a specialist doctor in the last 12 months were asked about their experience with specialist doctors. The majority (87%) of people reported that their specialist doctor always had their medical information or test results, while 8% stated there was at least one time when their specialist doctor did not have their medical information or test results. A further 4% indicated that they did not know whether their specialist doctor had their medical information or test results. Almost all (95%) reported that their specialist doctor explained treatment choices so that they could be understood.

Increasing patient involvement is an important part of quality improvement, as it has been associated with improved health outcomes<sup>1</sup>. Nearly nine in ten people (89%) indicated that their specialist doctor always or usually involved them in decisions about their own health care in the last 12 months.

## **SPECIALIST DOCTORS AND USUAL GP OR USUAL PLACE OF CARE**

Communication and information sharing between specialist doctors and a patient's usual GP or usual place of care can result in benefits for the patient<sup>2</sup>. Those who saw a specialist doctor were asked whether their usual GP or others in their usual place of care seemed informed about the care they received from the specialist doctor:

- 76% stated that their usual GP or others in their usual place of care seemed informed
- 6% stated that their usual GP or others in their usual place of care did not seem informed
- 3% stated that their usual GP or others in their usual place of care did not know about specialist care until the patient informed them
- 9% did not know if their GP seemed informed and
- 5% did not go to their usual GP or usual place of care after their specialist doctor visit (or had not yet gone to their usual GP or usual place of care after their specialist doctor visit).

It was more common for those aged 65 years and over than those aged 45 to 64 years to report that a usual GP or others in their usual place of care seemed informed about the care they received from a specialist doctor (84% compared with 68%). People aged 45 to 64 years were more likely to indicate they did not to know if their usual GP or others in their usual place of care seemed informed about the care they received from the specialist doctor (11% compared with 6%).

**1** Longtin Y, Sax H, Leape L, Sheridan S, Donaldson L, & Pittet D 2010. Patient participation: current knowledge and applicability to patient safety. *Mayo Clinic Proceedings* 85(1): 53–62.

**2** Sampson R, Barbour R, & Wilson P 2016. The relationship between GPs and hospital consultants and the implications for patient care: a qualitative study. *BMC Family Practice* 17(45).



## MEDICATIONS, TESTS, X-RAYS AND SCANS

All information in this publication refers to persons aged 45 years and over who had at least one general practitioner (GP) visit in the 12 months between November 2014 and November 2015.

The Survey of Health Care collected data on medication use as well as respondents' experience with health professionals while being on medication. Medications include all vitamins, pain killers and medications that respondents were taking on a regular and ongoing basis, whether or not they were recommended by a health professional.

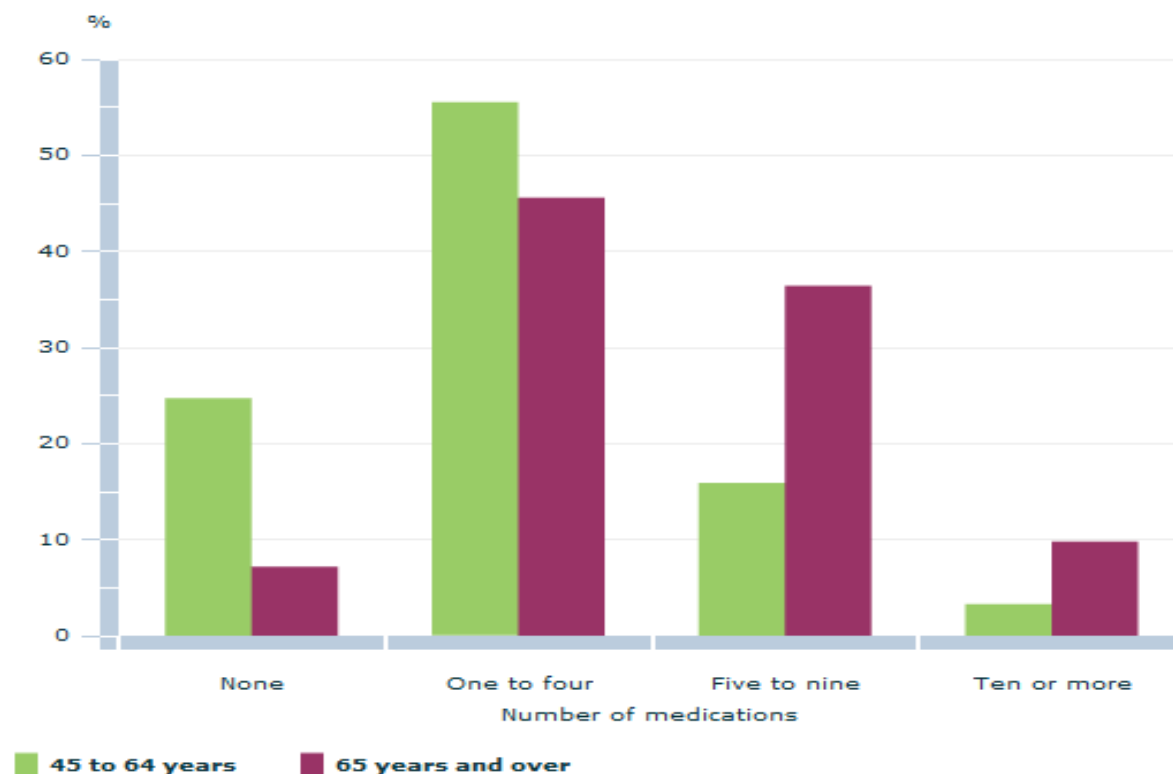
Respondents were also asked about any tests, x-rays or scans they had in the last 12 months and whether they experienced any barriers to having these tests, x-rays or scans.

### MEDICATIONS

Just over four in five people (82%) took at least one type of medication on a regular or ongoing basis. Around half (52%) reported taking one to four, 24% reported taking five to nine and 6% reported taking 10 or more different medications.

Generally, people aged 65 years and over were more likely to report taking five or more different medications than those aged 45 to 64 years. Those aged 65 years and over were more than twice as likely than those aged 45 to 64 years to report taking five to nine (36% compared with 16%) and more than three times as likely to report taking ten or more different medications (10% compared with 3%).

**Proportion of persons 45 years & over, number of different medications currently taking(a)**



Australian Bureau of Statistics

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**Footnotes** (a) For persons aged 45 years and over who had at least one GP visit in the 12 months between November 2014 and November 2015

**Source:** *Survey of Health Care: Summary of Findings*

Just over three quarters (76%) of people indicated they were always or usually involved in making decisions about the best medications for their own health in the last 12 months, while 3% indicated they did not want to be involved. Those aged 45 to 64 years were more likely to indicate they were always or usually involved in making decisions about medications for their own health than those aged 65 years and over (79% compared with 73%). Women were more likely than men to indicate being always or usually involved in making decisions about their medications for their own health (79% compared with 73%).

Seven in ten people (72%) indicated that a health professional reviewed all medications taken by them in the last 12 months. Those aged 65 years and over were more likely than those aged 45 to 64 years to indicate that their medications were reviewed by a health professional (76% compared with 68%). An additional 5% of people did not know whether a health professional reviewed all medications taken by them in the last 12 months.

In the last 12 months, one in 25 people (4%) reported that they had been given a wrong medication or wrong dose by a doctor, nurse or pharmacist.

## **TESTS, X-RAYS AND SCANS**

Seven in ten people (71%) had a test, x-ray or scan in the last 12 months. Of these, about nine in ten (89%) indicated that their results were always available at their scheduled health care appointment.

The majority (91%) of people indicated that they had all the tests, x-rays or scans that were ordered for them in the last 12 months. Those aged 45 to 64 years were more than three times as likely as those aged 65 years and over to have reported a time when they did not have a test, x-ray or scan when it was ordered (10% compared with 3%). Women were also more likely than men to have reported a time when they did not have a test, x-ray or scan when it was ordered (9% compared with 6%).

Just over one quarter (27%) indicated that cost was the reason why they did not have a test, x-ray or scan when it was ordered in the last 12 months. Those aged 45 to 64 years were more likely to have indicated cost as a reason than those aged 65 years and over (28% compared with 18%).

# HOSPITAL EMERGENCY DEPARTMENT

All information in this publication refers to persons aged 45 years and over who had at least one general practitioner (GP) visit in the 12 months between November 2014 and November 2015.

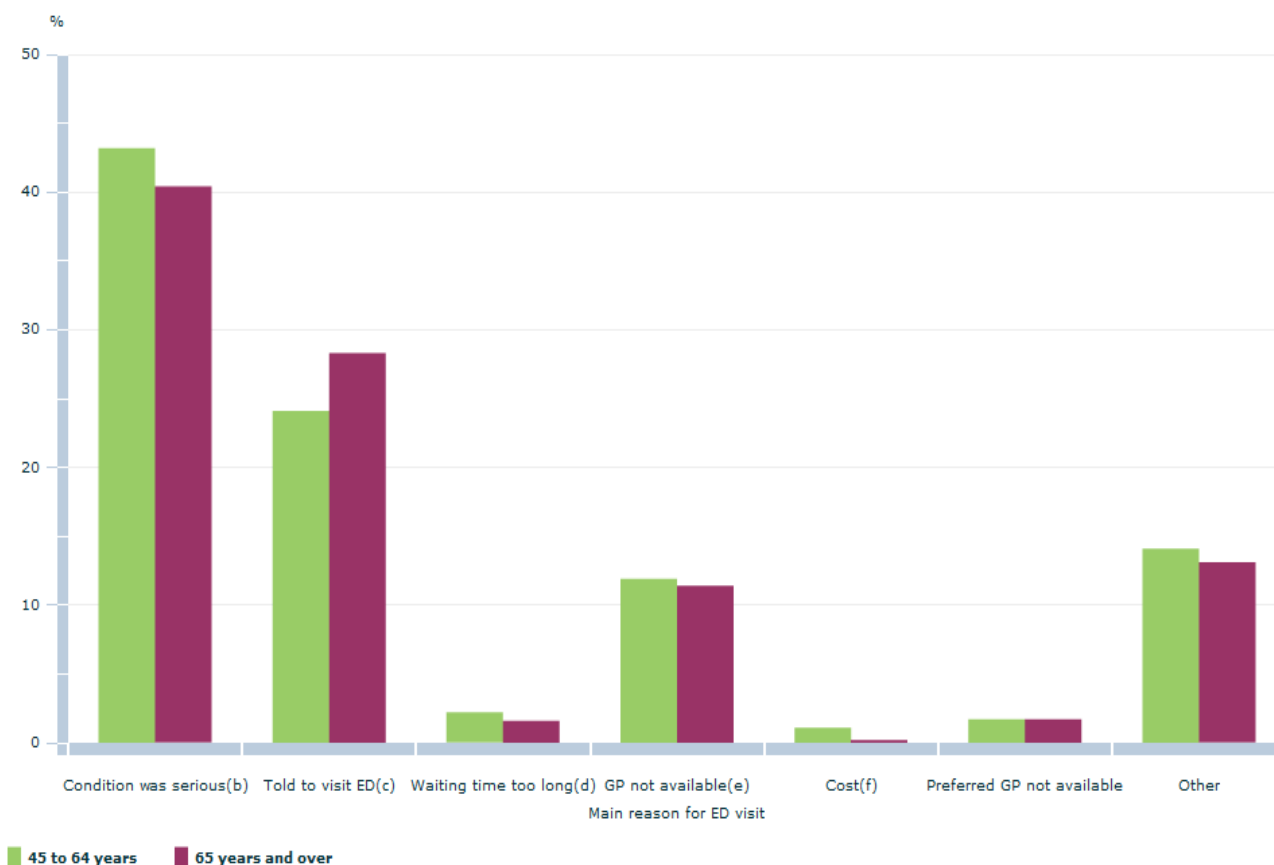
Hospital emergency departments (EDs) provide medical care and treatment for patients who may have an urgent need for care. Respondents were asked about the frequency of their visits to an ED in the last 12 months, as well as their reason for, and experience of, their most recent ED visit.

One in six people (18%) reported having been to an ED for their own health in the last 12 months. People aged 65 years and over were more likely to report having been to an ED in the last 12 months than those aged 45 to 64 years (22% compared with 16%).

## FREQUENCY AND MAIN REASONS FOR RECENT ED VISITS

Of people who had been to an ED in the last 12 months, nearly two thirds (64%) indicated they had been once and nearly one third (32%) had been at least twice. Of those who had visited an ED in the last 12 months, 42% indicated that the main reason for their most recent visit was due to their condition being serious or life threatening, 26% indicated that they were told to visit the ED by a doctor or nurse and 12% indicated that a GP was not available when required. Less than 1% of people indicated that the cost of going to the doctor or other health professional was the main reason for their most recent ED visit.

Proportion of persons 45 years & over, main reason for most recent visit to the hospital emergency department(a)



Australian Bureau of Statistics  
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**Footnotes** (a) For persons aged 45 years and over who had at least one GP visit in the 12 months between November 2014 and November 2015 (b) Condition was serious or life threatening (c) Told to visit emergency department by doctor or nurse (d) Waiting time to see a doctor or other health profession was too long (e) GP not available when required (f) Cost of going to the doctor or other health professional.

**Source:** *Survey of Health Care: Summary of Findings*

One in five people (20%) who went to the ED in the last 12 months indicated that for their most recent ED visit, they thought the care could have been provided by a GP. This was more common for those aged 45 to 64 years than those aged 65 years and over (24% compared with 17%). A further 7% of people who went to the ED in the last 12 months did not know whether the care could have been provided by a GP.

People who had attended an ED in the last 12 months were asked whether their usual GP or others in their usual place of care seemed informed of follow up needs or medication changes after their most recent visit to the ED:

- 62% stated that their usual GP or others in their usual place of care seemed informed
- 12% stated that their usual GP or others in their usual place of care did not seem informed
- 7% stated that their usual GP or others in their usual place of care did not know about follow-up needs or medication changes until the patient informed them
- 8% did not know if their GP seemed informed
- 6% did not have follow-up needs or medication changes and
- 3% did not go to their usual GP or usual place of care after their most recent ED visit (or had not yet gone to their usual GP or usual place of care after their most recent ED visit).

## HOSPITAL SERVICES

All information in this publication refers to persons aged 45 years and over who had at least one general practitioner (GP) visit in the 12 months between November 2014 and November 2015.

People are admitted to hospitals for emergency and elective care, covering medical, surgical and maternity services. Hospital admissions include planned and unplanned admissions, and in some cases patients are not required to stay overnight. Respondents were asked about the frequency and duration of their hospital admissions (excluding hospital emergency department visits), as well as their experience post hospitalisation.

### FREQUENCY OF HOSPITAL ADMISSIONS

Nearly one in five people (22%) were admitted to hospital in the last 12 months. People aged 65 years and over were more likely than those aged 45 to 64 years to have been admitted to hospital (27% compared with 18%).

Of people who were admitted to hospital in the last 12 months, almost two thirds of people (65%) aged 45 years and over reported having been admitted to hospital once, while almost one third (32%) were admitted more than once. Men were more likely than women to report being admitted to hospital two or more times in the last 12 months (35% compared with 29%). People aged 65 years and over were more likely than people aged 45 to 64 years to have reported being admitted to hospital two or more times in the last 12 months (36% compared with 27%).

### TYPE AND DURATION OF HOSPITAL ADMISSIONS

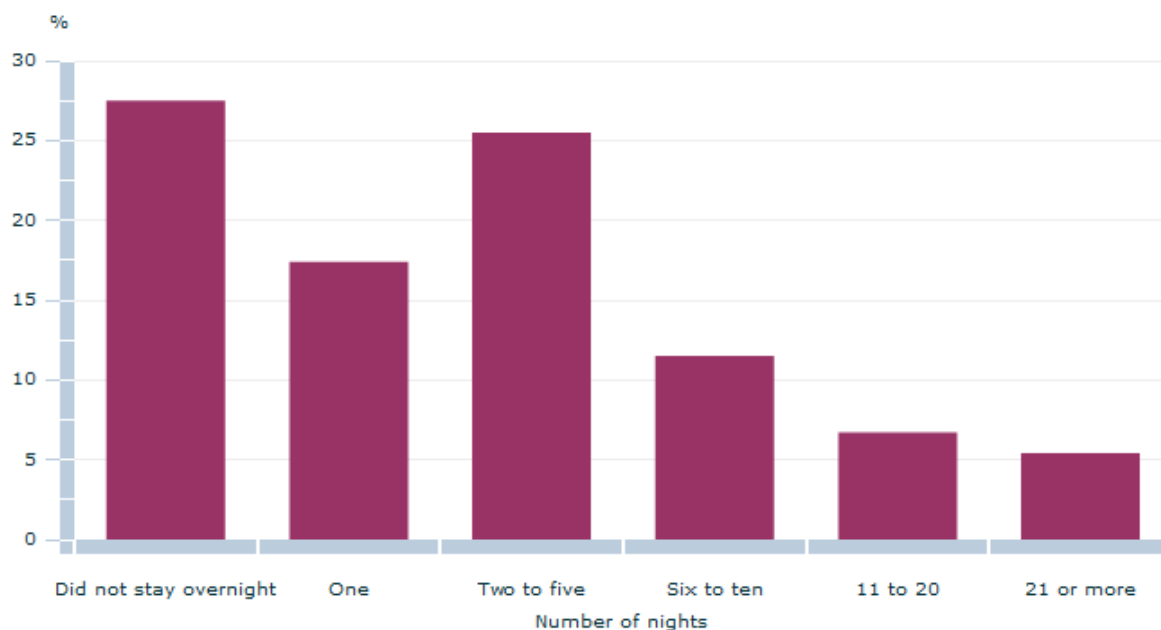
Just over one quarter (28%) of those who indicated they had been admitted to hospital in the last 12 months did not stay overnight. Not staying overnight was more common for those aged 45 to 64 years (33%) than those aged 65 years and over (22%).

People who were admitted to hospital were asked for the total number of nights that they stayed in hospital in the last 12 months:

- 17% stayed one night
- 26% stayed two to five nights
- 12% stayed six to ten nights
- 7% stayed 11 to 20 nights
- 5% stayed 21 or more nights
- 28% did not stay overnight in hospital

It was more common for those aged 65 years and over than those aged 45 to 64 years to report that they stayed in hospital for 21 or more nights (7% compared with 3%).

Proportion of persons 45 years & over who were admitted to hospital, number of nights stayed in hospital(a)(b)(c)



Australian Bureau of Statistics

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**Footnotes** (a) For persons aged 45 years and over who had at least one GP visit in the 12 months between November 2014 and November 2015 (b) Number of nights stayed in hospital in the last 12 months (c) Excludes stays in a hospital emergency department.

**Source:** *Survey of Health Care: Summary of Findings*

Around two in three people (67%) indicated that their most recent admission to hospital in the last 12 months was planned. People aged 45 to 64 years were more likely than those aged 65 years and over to indicate that their most recent hospital admission was planned (72% compared with 63%).

## EXPERIENCE POST HOSPITALISATION

All respondents who had been admitted to hospital in the last 12 months were asked about arrangements made for them by the hospital following their hospital admission, whether they knew who to contact with questions regarding their condition or treatment, and whether their GP or usual place of care seemed informed following their hospital admission.

With relation to their most recent hospital admission, almost all (95%) indicated they knew who to contact if they had questions about their condition or treatment post hospitalisation. Most people (87%) indicated they had arrangements made by the hospital for services needed after their hospital admission or they did not need any services after their most recent hospital admission.

People who had been admitted to hospital in the last 12 months were asked whether their usual GP or others in their usual place of care seemed informed about their follow up needs or medication changes after their most recent hospital admission:

- 66% reported that their usual GP or others in their usual place of care seemed informed about their follow up needs or medication changes
- 12% did not have follow up needs or medication changes
- 3% did not see their usual GP or others in their usual place of care after their hospital admission (or had not yet seen their usual GP or others in their usual place of care after their hospital admission)
- 7% stated that their usual GP or others in their usual place of care did not seem informed about their follow up needs or medication changes after their most recent hospital admission and
- 4% had to inform their usual GP or others in their usual place of care about their follow up needs or medication changes.

Those aged 65 years and over were more likely than those aged 45 to 64 years to indicate that their usual GP or others in their usual place of care seemed informed about their follow up needs and medication changes following their recent hospital admission (73% compared with 58%).

## HEALTH PROFESSIONALS

All information in this publication refers to persons aged 45 years and over who had at least one general practitioner (GP) visit in the 12 months between November 2014 and November 2015.

### OTHER HEALTH PROFESSIONALS

Some people may receive health care from health professionals other than their general practitioner (GP) or specialist doctors or nurses for their physical and/or emotional or psychological health. Examples of other health professionals include physiotherapists, podiatrists, dietitians, psychologists, counsellors and social workers. This chapter presents data on people who saw other health professionals, as well as their overall experience with all health professionals.

Over two in five people (44%) reported that they received care from a health professional (excluding GPs, specialist doctors or nurses) for physical health, while 9% reported receiving care from a health professional for emotional or psychological health. Those aged 65 years and over were more likely to report receiving care from a health professional for physical health than those aged 45 to 64 years (47% compared with 42%). Those aged 45 to 64 years were twice as likely as those aged 65 years and over to report receiving care from a health professional for emotional or psychological health (12% compared with 6%).

More women indicated that they received care from another health professional for their physical health than men (49% compared with 39%). Similarly, 11% of women compared with 8% of men indicated that they received care from another health professional for their emotional or psychological health.

### EXPERIENCE WITH ALL HEALTH PROFESSIONALS

Respondents were asked about their overall experience with all health professionals in the last 12 months, including GPs, specialist doctors and other health professionals.

Most people (92%) reported that they received enough information, or did not need information, about their care or treatment from a health professional.

The majority (91%) of people reported that they had a health professional who had a good understanding of their health, health care needs and preferences, or that they did not have any health care needs or preferences, in the 12 months prior to the survey. This was more commonly reported for those aged 65 years and over than those aged 45 to 64 years (93% compared with 90%).



# EXPLANATORY NOTES

## INTRODUCTION

**1** This summary publication contains results from the Survey of Health Care (SHC) conducted throughout Australia from April 2016 to June 2016. The SHC was funded by the AIHW, and conducted by the ABS and the AIHW, as part of the broader Coordination of Health Care Study.

**2** The Coordination of Health Care Study is a broad collection consisting of two components. The first is the SHC and the second involves integrating data for consenting participants with specific data items from the Medicare Benefits Schedule (MBS), Pharmaceutical Benefits Scheme (PBS) data, Repatriation Pharmaceutical Benefits Scheme (RPBS), together with hospitalisation data including visits to emergency departments and admissions to hospital.

## SCOPE AND COVERAGE

**3** The scope of the SHC was people aged 45 years and over who had at least one GP visit in the 12 months between November 2014 and November 2015. A GP visit means having a claim against any one of a defined set of MBS item numbers. These people were chosen because they are more likely to have complex and chronic conditions, and have experiences with multiple providers including hospitals, specialists, and allied health professionals. See [Glossary](#) for MBS item numbers.

**4** The scope of SHC was people in all States and Territories. The scope included:

- people who were registered to receive Medicare benefits at any time prior to November 2015
- people who live in private and non-private dwellings
- visitors and diplomats from countries where there is a reciprocal Medicare arrangement
- people who received services through Aboriginal Medical Services
- people who were deceased after the sample was selected.

**5** The scope excluded:

- people who were not registered with Medicare
- people who had only had GP transactions which were not billed through Medicare, (for example through doctors who draw a salary and do not bill to Medicare)
- people who were in active military service and obtained all their medical services through the military.

**6** The sample frame for the SHC was the Medicare Enrolment Database (MEDB). The sample was selected from this frame by the Department of Human Services (DHS) in accordance with a stratification and allocation specified by the ABS.

**7** As people were in scope of the SHC if they saw a GP at least once in the 12 months prior to selection (23 November 2015), there may have been people who saw a GP at least once in the 12 months prior to enumeration (April 2016 to June 2016) who were not in scope as they did not visit a GP between November 2014 and November 2015. Similarly, there may have been people who visited a GP in the 12 months prior to selection but did not visit a GP in the 12 months prior to enumeration who were in scope.

## SAMPLE DESIGN

**8** The SHC sample was designed to support estimates at the Primary Health Network (PHN) area level. A stratified random sample was used where the strata were based on the following variables:

- age groups (five-year groups from 45 to 79 years of age, then 80 years and over)
- sex (male and female)
- PHN area (31 PHNs plus an extra category for unknown PHN)
- socio-economic category (people were divided into three socio-economic strata 'low', 'medium' and 'high' based on their postcode's score on the Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD), 'low' and 'high' being the bottom and top two deciles respectively)
- number of GP visits in the 12 months prior to selection (number of GP visits was split into users with 1 to 11 visits and users with 12 visits or more).

**9** People on the frame were assigned a PHN based on the postcode of their postal address as recorded on the MEDB. A correspondence between postal areas and PHNs was used to do this. As not every postcode is included in the ABS postal area classification, there were around 100,000 people who could not be allocated a PHN. At the sample design stage, these people were allocated to an unknown PHN category.

**10** There were 8.8 million people in scope on the MEDB. A total sample of around 124,000 people was selected by sorting within stratum by number of GP visits and then applying a skip using a random start.

**11** Also incorporated into the overall sample design was a requirement to oversample people who saw a GP more than 12 times such that the resulting sample consisted of approximately half people who saw a GP 12 or more times and half who saw a GP 1-11 times.

## SURVEY RESPONSE

**12** There were around 124,000 people selected for this survey. Of these, there were 35,495 responses, giving a response rate of 28.6%. In this survey it is not possible to distinguish between non-response and sample loss. For example, a person may have been selected to participate, but will not have received any survey materials due to an out-of-date address on the MEDB.

**13** The following table contains response rates by the State or Territory that the person was selected in. Persons selected in the unknown PHN category have unknown State for selection.

**Table 1.1 RESPONSE RATES**

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Unknown	Aust.
Approached sample	38,248	22,892	27,415	7,825	11,161	3,940	3,411	3,843	5,337	124,072
Responding sample size	10,738	6,983	7,755	2,632	3,351	1,384	651	1,305	696	35,495
Response rate (%)	28.1	30.5	28.3	33.6	30.0	35.1	19.1	34.0	13.0	28.6

**14** In the survey output, respondents are placed into the geographic regions (e.g. State, PHN) and SEIFA decile that correspond to their reported home postcode.

## DATA COLLECTION

**15** Data was collected by mail. In order to facilitate maximum response, a four stage mail-out approach was used. The four stages consisted of:

1. a DHS cover letter, a Primary Approach Letter and a translated paper introducing respondents to the study in 10 languages;
2. a DHS cover letter, the SHC, a Consent Form for Release of Hospital Data, a Consent Form for Release of Department of Human Services Data, a translation paper, a brochure and a reply paid envelope;
3. a DHS cover letter, a reminder/thank you postcard and a translation paper. This wave was only despatched to people who had not returned a survey form, or who had not contacted the ABS to refuse participating in the study as of the 26th of April 2016; and
4. a replication of stage 2, despatched only to those who had not returned a survey form nor made contact with the ABS as of the 26th of April 2016.

**16** In each phase of the mail out, a cover letter from the DHS was included, explaining that the DHS had not provided the ABS with any personal details of the selected person.

**17** People with low English proficiency, or who had a disability which prevented them from completing the survey on their own, were able to complete the survey over the phone. People with low English proficiency were offered the option of an interpreter from the Translation and Interpreting Service (TIS National) who could facilitate a phone call with the ABS and translate as an ABS officer provided information or collected the participant's data over the phone.

## WEIGHTING, BENCHMARKS AND ESTIMATION

### Weighting

**18** Weighting is the process of adjusting results from a sample survey to infer results for the total 'in scope' population. To do this, a 'weight' is allocated to each enumerated person. The weight is a value which indicates the number of people in the population represented by the sample person.

**19** The first step in calculating weights for each unit is to assign an initial weight, which is the inverse of the probability of being selected in the survey. For example, if the probability of a person being selected in the survey was 1 in 600, then the person would have an initial weight of 600 (that is, they represent 600 people).

**20** The probability of being selected was based on the stratification variables: number of GP visits (1-11 or 12 or more), PHN, 'low', 'medium' or 'high' IRSAD, sex and age group (five-year groups from 45 to 79 years of age, then 80 years and over). Persons in the number of GP visits (12 or more) had a higher chance of selection than those with 1-11 GP visits.

**21** In order to determine the stratum of selection, self-reported values were used for PHN, SEIFA, sex and age as the ABS does not have access to any personal information from the frame. While self-reported frequency of GP use was also available, analysis of data for persons who consented to have their MBS data released for the study indicated that this was not a reliable indicator of the frequency of GP use (derived from MBS claims) as was used for sample selection. For this reason, the initial weight was calculated in the following ways:

1. For those who consented to have their MBS data released for the study (around 51% of respondents), the initial weight was calculated using the MBS claims information for the period November 2014 to November 2015 to calculate their frequency of GP use at the time of selection.
2. For those who did not give their consent, and who provided a self-reported frequency of GP use (around 47% of respondents), a logistic adjusted weight was calculated to determine their frequency of GP use. This logistic weight was calculated by modelling the relationship between MBS claims at the time of the survey and self-reported frequency of GP use within strata for those respondents for whom both pieces of information was available and applying this relationship to those for whom only self-reported was available.
3. For those who did not give their consent and did not provide a self-reported frequency of GP use (around 2% of respondents), an initial weight was calculated based on the average weight across both frequency categories according to the overall probability of being in that category by stratum.

**22** For weighting purposes, the PHN and SEIFA allocated to each record were based on the postcode of the respondent's reported address, which in some cases differed from the postcode, PHN and SEIFA used in selection.

### Benchmarks

**23** Weights calibrated against population benchmarks ensure that the survey estimates conform to the distribution of the MEDB population rather than the distribution within the sample itself. Calibration to population benchmarks helps to compensate for over or under-enumeration of particular categories of people/households which may occur due to either the random nature of sampling or non-response.

**24** The survey was benchmarked to counts of the in-scope population at November 2015 from the MEDB for PHN (based on postal address postcode) by sex by 10 year age groups to age 75 and over.

### Estimation

**25** Survey estimates of counts of people are obtained by summing the weights of people with the characteristic of interest.

### Confidentiality

**26** The *Census and Statistics Act, 1905* provides the authority for the ABS to collect statistical information, and requires that statistical output shall not be published or disseminated in a manner that is likely to enable the identification of a particular person or organisation. The requirement means that the ABS must take care and make assurances that any statistical information about individual respondents cannot be derived from published data.

**27** Perturbation is used in this publication to minimise the risk of identifying individuals in aggregate statistics. Perturbation involves a small random adjustment of the statistics and is considered the most satisfactory technique for avoiding the release of identifiable statistics while maximising the range of information that can be released. These adjustments have a negligible impact on the underlying pattern of the statistics. After perturbation, a given published cell value will be consistent across all tables. However, adding up cell values to derive a total will not necessarily give the same result as published totals.

## RELIABILITY OF ESTIMATES

**28** All sample surveys are subject to error which can be broadly categorised as either:

- sampling error
- non-sampling error.

**29** Sampling error is the difference between the published estimate, derived from a sample of people, and the value that would have been produced if all people in scope of the survey had been included. For more information refer to the Technical Note.

**30** In this publication, estimates with an RSE of 25% to 50% are preceded by an asterisk (e.g. \*3.4) to indicate that the estimate has a high level of sampling error relative to the size of the estimate, and should be used with caution. Estimates with an RSE over 50% are indicated by a double asterisk (e.g. \*\*0.6) and are generally considered too unreliable for most purposes.

**31** Margins of Error are provided for proportions to assist users in assessing the reliability of these data. The proportion combined with the MoE defines a range which is expected to include the true population value with a given level of confidence. This is known as the confidence interval. This range should be considered by users to inform decisions based on the proportion. Proportions with an MoE of greater than 10 percentage points are preceded by a hash (e.g. #40.1) to indicate the range in which the true population value is expected to be relatively wide.

**32** Non-sampling error may occur in any collection, whether it is based on a sample or a full count of the population such as a census. Sources of non-sampling error include: non-response; errors in reporting by respondents or recording of answers by interviewers; and errors in coding and processing data. Every effort was made to reduce the non-sampling error by: careful design and testing of the questionnaire; follow-up of respondents; and extensive editing and quality control procedures at all stages of data processing.

**33** Non-response bias occurs where non-respondents may have different characteristics from those who did respond. While the collection is subject to non-response bias, it is not possible to reliably quantify this. The magnitude of any bias depends on the rate of non-response and the extent of the differences in characteristics between those people who responded to the survey and those who did not. See Table 1.2 below for a comparison with other ABS collections.

**34** This collection was undertaken in a different manner from other ABS household surveys as it was a voluntary, mail-based collection with follow-up by mail. The collection achieved a response rate of 29%.

## DATA QUALITY

### Comparability with other ABS surveys

**35** As this is the first time the SHC has been collected, there is no time series data available.

**36** Similar concepts to those in the SHC are found in other ABS surveys, for example the [Patient Experience in Australia \(cat. no. 4839.0\)](#) and the [National Health Survey \(cat. no. 4364.0.55.001\)](#). However, comparison with other ABS surveys should be undertaken with caution. There are several reasons why data from the SHC may not be comparable with other ABS collections:

- the scope (SHC includes persons who live in non-private dwellings such as hospitals and nursing homes, persons in areas classified as Very Remote, and those in discrete Aboriginal and Torres Strait Islander communities),
- reference period,
- question wording,
- voluntary nature of the collection and
- the mode of enumeration.

**37** Given the response rate, an investigation was carried out in order to try to understand whether the sample is representative of the in-scope population. While there are some differences between the sample distribution

from the Survey of Health Care and other surveys by age, sex, SEIFA and PHN, these have been taken into account by the weighting process. The table below gives a comparison of proportions for a range of other variables from SHC, Patient Experience 2015-16 (PEX) and the National Health Survey 2014-15 (NHS) for the same scope (i.e. over 45 years and at least one GP visit in the previous 12 months). For 'level of education' and whether the person 'had private health insurance', the proportions were similar across the different sources. For some health related variables, the SHC generally had a higher proportion of people with poorer health. No adjustment to the weighting has been made for this potential bias.

**Table 1.2 COMPARISON BETWEEN SHC, PEX AND NHS, PERSONS AGED 45 YEARS AND OVER WHO HAD AT LEAST ONE GP VISIT IN THE PREVIOUS 12 MONTHS(a)**

	Survey of Health Care, 2016	Patient Experience, 2015-16	National Health Survey, 2014-15
	% Percent		
Proportion who reported having a long-term health condition(b)	75.1	72.6	..
Proportion who have excellent or very good self-assessed health status	46.8	48.4	47.0
Proportion who have private health insurance	64.8	61.2	60.9
Proportion who have bachelor degree or above	23.7	21.4	21.8
Proportion who have visited an emergency department in the 12 months prior to survey enumeration	18.3	15.1	12.5
Proportion who have been admitted to hospital in the 12 months prior to survey enumeration	21.8	16.9	16.9
Proportion who report 12 or more visits to a GP in the 12 months prior to survey enumeration	15.0	14.0	15.7
Proportion who saw a specialist in the 12 months prior to survey enumeration	54.6	49.6	51.1
Proportion who speak a language other than English at home(c)	9.1	..	10.7
Proportion with two or more persons in their household	80.6	80.2	79.6

Cells in this table have been randomly adjusted to avoid the release of confidential data.

(a) There are differences in the scope of the SHC and the PEX and NHS collections which must be considered when interpreting comparisons in this table. In particular, the SHC includes persons who live in non-private dwellings such as hospitals and nursing homes which are excluded from PEX and NHS. In addition, the NHS excludes persons in areas classified as Very Remote, and both PEX and NHS exclude those in discrete Aboriginal and Torres Strait Islander communities.

NHS and PEX data in this table are restricted to persons aged 45 years and over and who reported having at least one GP visit in the 12 months. SHC data are restricted to persons aged 45 years and over and who reported having at least one GP visit in the 12 months prior to being selected.

More detailed information about the methodology for these two collections can be found in the [NHS Explanatory Notes \(cat. no. 4364.0.55.001\)](#) and [PEX Explanatory Notes \(cat. no. 4839.0\)](#).

(b) There were differences in the methods used to collect long term health conditions between the collections. Both PEX and SHC used a tick box question, PEX with eight and SHC with 14 options. The NHS uses a much more extensive set of questions and is not comparable.

(c) Language other than English spoken at home is not collected in PEX.

## Interpretation of results

**38** There were a number of issues unique to this collection which may affect the interpretation of the results. These include:

- This survey was a self-administered paper questionnaire, while other ABS household surveys use interviewer administered computer assisted face to face or telephone interviews. While every effort was made to ensure the questions would be universally understood and sequencing was straightforward, respondents did not have the benefit of interviewers to clarify key terms or the systems to ensure the respondent was correctly sequenced through the form.
- Due to the age of respondents and possible health limitations, the survey may have been completed on behalf of the respondent by a family member or another person.
- Questions used in this collection sometimes differed from ABS standard module questions and therefore the resulting data is not necessarily comparable with other ABS household surveys.

## Editing of survey data

**39** With the mode of delivery being a paper form survey, there was some input editing required. Below are some examples.

- In some cases respondents incorrectly sequenced themselves past applicable questions or answered questions not applicable to them. Universal edits have been applied to the data to correct these sequencing issues.
- For questions with free text boxes, in some cases, depending on the clarity of the text, some answers did not scan correctly. For example, the number 5 could scan as the letter S, or the number 9 could scan as the number 4. This required manually reviewing forms where this was known to be an issue in order to correct it.
- Some respondents answered in such a way that one of their responses contradicted another. Edits were applied to reduce contradictory responses.
- Most data items include a 'Not stated' category. This is to capture scenarios where the respondent was in the applicable population for that data item, but did not answer the question and there was not enough information to impute their answer to that question. The data items 'Whether has a usual GP' and 'Whether has a usual GP or usual place of care' do not have 'Not stated' categories. If data for these items was missing it was imputed based on answers to other relevant questions.

## CLASSIFICATIONS

**40** Geographic classifications were applied to the survey data based on the respondent's reported home postcode, using correspondences between the geography of interest and ABS Postal Area geography.

**41** Standard ABS Geographies were classified according to the Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2011 (cat. no. 1270.0.55.001).

**42** Remoteness areas are classified according to the [Australian Statistical Geography Standard \(ASGS\): Volume 5 - Remoteness Structure, July 2011 \(cat. no. 1270.0.055.005\)](#).

**43** Primary Health Networks (PHNs) are a classification developed by the Department of Health, see Primary Health Network in the [Glossary](#). The [correspondence between PHN and ABS Postal Area geography](#) was used to relate a person's postcode as listed on the MEDB to a PHN.

**44** Where a postcode crossed a PHN boundary the entire postcode was allocated to the PHN with largest proportion of people living in it. There was a slight exception where a postcode crossed a state boundary; in this case individuals were manually coded to the state they reported as their address.

## Socio-economic Indexes for Areas (SEIFA)

**45** The survey uses the 2011 Socio-economic Indexes for Areas (SEIFA).

**46** SEIFA is a suite of four summary measures that have been created from 2011 Census information. Each index summarises a different aspect of the socio-economic conditions of people living in an area. The indexes provide more general measures of socio-economic status than is given by measures such as income or unemployment alone.

**47** For each index, every geographic area in Australia is given a SEIFA number which shows how disadvantaged that area is compared with other areas in Australia.

**48** The Survey of Health Care publication uses the Index of Relative Socio-Economic Advantage and Disadvantage, derived from Census variables related to advantage and disadvantage such as high and low household income, lower educational attainment, unemployment, jobs in relatively skilled or unskilled occupations and dwellings without motor vehicles.

**49** SEIFA uses a broad definition of relative socio-economic disadvantage in terms of people's access to material and social resources, and their ability to participate in society. While SEIFA represents an average of all people living in an area, it does not represent the individual situation of each person. Larger areas are more likely to have greater diversity of people and households.

**50** For more detail, see the following:

- [SEIFA Basics: Information on Socio-Economic Indexes for Areas \(cat. no. 2033.0.55.001\)](#).
- [Socio-Economic Indexes for Areas \(SEIFA\) - Technical Paper, 2011 \(cat. no. 2033.0.55.001\)](#).

## PRODUCTS AND SERVICES

### Data Cubes

**51** Data Cubes containing all tables in Excel spreadsheet format can be found on the ABS website (from the Downloads tab). The spreadsheets present tables of estimates and proportions, and their corresponding relative standard errors (RSEs) and margin of error (MoE).

### Customised data requests

**52** Special tabulations of the data are available on request. Subject to confidentiality and sampling variability constraints, tabulations can be produced from the survey incorporating data items, populations and geographic areas (including state and territory level data), tailored to individual requirements. These are provided in electronic form. A list of data items from the 2016 Survey of Health Care is available from the Downloads tab.

**53** For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070, or email [client.services@abs.gov.au](mailto:client.services@abs.gov.au). The [ABS Privacy Policy](#) outlines how the ABS will handle any personal information that you provide to us.

## ACKNOWLEDGEMENTS

**54** ABS surveys draw extensively on information provided by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated and without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

**55** The survey and study were funded by the AIHW, and conducted by the ABS. This publication was jointly prepared and released by the ABS and the AIHW.

**56** The ABS and AIHW also acknowledge and thank the DHS for its assistance in the sample selection and postage process of the study.

**57** The SHC used variations of questions sourced from other national and international non-ABS surveys. The ABS and AIHW would like to acknowledge the following organisations:

- Harvard Medical School, Boston
- Department of Health & Human Services, Victoria
- The Commonwealth Fund, New York
- Statistics Canada, Ottawa

**58** Specific questions in the SHC that were based on questions from these source organisations are listed in the table below:

**Table 1.3 SOURCE ORGANISATIONS AND SOURCE QUESTIONS USED IN SURVEY OF HEALTH CARE SOURCE ORGANISATION**

	<b>Source Question</b>	<b>Survey of Health Care question</b>
Harvard Medical School Public Health Survey	In the last 12 months, did your usual GP or others in your usual place of care ask you about things in your work or life that affect your health? Yes, always Yes, usually Yes, sometimes No, never	In the last 12 months, did your usual GP or others in your usual place of care ask you about things in your work or life that affect your health? Yes, always Yes, usually Yes, sometimes No, never
Victorian Patient Satisfaction Monitor	Were arrangements made by the hospital for any services you needed when you left hospital? Yes, definitely Yes, to some extent No I didn't need any services	Were arrangements made by the hospital for any services you needed when you left hospital? Yes No I didn't need any services
The Commonwealth Fund	After the last time you went to a specialist doctor, did your usual GP or others in your usual place of care seem informed about your specialist care? Yes No Don't know GP or others in my usual place of care didn't know until I told them I didn't go to my usual GP or go to my usual place of care after my specialist doctor visit I don't have a usual GP or usual place of care	After the last time you went to a specialist doctor, did your usual GP or others in your usual place of care seem informed about your specialist care? Yes No Don't know GP or others in my usual place of care didn't know until I told them I didn't go to my usual GP or go to my usual place of care after my specialist doctor visit I don't have a usual GP or usual place of care
Statistics Canada	How often did your GP explain your test results in a way that you could understand? Always Usually Sometimes Never I have not had a follow-up appointment yet I was never told the results of the tests	In the last 12 months, how often did your usual GP or others in your usual place of care explain your test results (such as blood tests, x-rays or scans) in a way that you could understand? Always Usually Sometimes Never I did not have any tests



## TECHNICAL NOTE

### RELIABILITY OF ESTIMATES

1 Two types of error are possible in an estimate based on a sample survey: sampling error and non-sampling error. The sampling error is a measure of the variability that occurs by chance because a sample, rather than the entire population, is surveyed. Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings they are subject to sampling variability; that is, they may differ from the figures that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE). There are about two chances in three that a sample estimate will differ by less than one SE from the figure that would have been obtained if all dwellings had been included, and about 19 chances in 20 that the difference will be less than two SEs.

2 Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate. The RSE is a useful measure in that it provides an immediate indication of the percentage errors likely to have occurred due to sampling, and thus avoids the need to refer also to the size of the estimate.

$$RSE\% = \left( \frac{SE}{Estimate} \right) \times 100$$

3 RSEs for published estimates are supplied in Excel data tables, available via the Downloads page.

4 The smaller the estimate the higher is the RSE. Very small estimates are subject to such high SEs (relative to the size of the estimate) as to detract seriously from their value for most reasonable uses. In the tables in this publication, only estimates with RSEs less than 25% are considered sufficiently reliable for most purposes. However, estimates with larger RSEs, between 25% and less than 50% have been included and are preceded by an asterisk (e.g. \*3.4) to indicate they are subject to high SEs and should be used with caution. Estimates with RSEs of 50% or more are preceded with a double asterisk (eg\*\*0.6). Such estimates are considered unreliable for most purposes.

5 The imprecision due to sampling variability, which is measured by the SE, should not be confused with inaccuracies that may occur because of imperfections in reporting by interviewers and respondents and errors made in coding and processing of data. Inaccuracies of this kind are referred to as the non-sampling error, and they may occur in any enumeration, whether it be in a full count or only a sample. In practice, the potential for non-sampling error adds to the uncertainty of the estimates caused by sampling variability. However, it is not possible to quantify the non-sampling error.

### STANDARD ERRORS OF PROPORTIONS AND PERCENTAGES

6 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. For proportions where the denominator is an estimate of the number of persons in a group and the numerator is the number of persons in a sub-group of the denominator group, the formula to approximate the RSE is given below. The formula is only valid when x is a subset of y.

$$RSE \left( \frac{x}{y} \right) = \sqrt{RSE(x)^2 - RSE(y)^2}$$

### COMPARISON OF ESTIMATES

7 Published estimates may also be used to calculate the difference between two survey estimates. Such an estimate is subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x-y) may be calculated by the following formula:

$$SE(x - y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

8 While the above formula will be exact only for differences between separate and uncorrelated (unrelated) characteristics of sub-populations, it is expected that it will provide a reasonable approximation for all differences likely to be of interest in this publication.

9 Another measure is the Margin of Error (MOE), which describes the distance from the population value that the sample estimate is likely to be within, and is specified at a given level of confidence. Confidence levels typically used are 90%, 95% and 99%. For example, at the 95% confidence level the MOE indicates that there are about 19 chances in 20 that the estimate will differ by less than the specified MOE from the population value (the figure obtained if all dwellings had been enumerated). The 95% MOE is calculated as 1.96 multiplied by the SE.

10 The 95% MOE can also be calculated from the RSE by:

$$MOE(y) \approx \frac{RSE(y) \times y}{100} \times 1.96$$

11 The MOEs in this publication are calculated at the 95% confidence level. This can easily be converted to a 90% confidence level by multiplying the MOE by:

$$\frac{1.645}{1.96}$$

or to a 99% confidence level by multiplying by a factor of:

$$\frac{2.576}{1.96}$$

12 A confidence interval expresses the sampling error as a range in which the population value is expected to lie at a given level of confidence. The confidence interval can easily be constructed from the MOE of the same level of confidence by taking the estimate plus or minus the MOE of the estimate.

## SIGNIFICANCE TESTING

13 For comparing estimates between surveys or between populations within a survey it is useful to determine whether apparent differences are 'real' differences between the corresponding population characteristics or simply the product of differences between the survey samples. One way to examine this is to determine whether the difference between the estimates is statistically significant. This is done by calculating the standard error of the difference between two estimates (x and y) and using that to calculate the test statistic using the formula below:

$$\frac{|x - y|}{SE(x - y)}$$

where

$$SE(y) = \frac{RSE(y) \times y}{100}$$

14 If the value of the statistic is greater than 1.96 then we may say there is good evidence of a statistically significant difference at 95% confidence levels between the two populations with respect to that characteristic. Otherwise, it cannot be stated with confidence that there is a real difference between the populations.

## **GLOSSARY**

### **Activities of daily living**

Activities include dressing, driving, showering, bathing or eating.

### **Index of socio-economic advantage and disadvantage**

This is one of four Socio-economic Indexes for Areas (SEIFAs) compiled by the ABS following each Census of Population and Housing. It is a continuum of advantage (high values) to disadvantage (low values) which is derived from Census variables related to both advantage and disadvantage, like household with low income and people with a tertiary education. A low score indicates relatively greater disadvantage and a lack of advantage in general and a high score indicates a relative lack of disadvantage and greater advantage in general.

### **Long-term health condition**

A long-term health condition is a health condition that is expected to last or has lasted 6 months or more and has been diagnosed by a health professional. Respondents were specifically asked whether they had any of the following conditions:

- diabetes
- heart disease
- high blood pressure
- effects of a stroke
- cancer
- asthma
- chronic lung disease
- osteoporosis or low bone density
- arthritis
- mental health condition
- Alzheimer's disease or dementia
- moderate or severe pain

### **Medicare Enrolment Database (MEDB)**

The Medicare Enrolment Database includes listings of people who are registered to receive Medicare benefits in Australia.

### **Medicare Benefits Schedule (MBS) item numbers**

GP visits for the purposes of the Coordination of Health Care study comprise all MBS items in:

- Group A1 – general practitioner attendance to which no other item applies
- Group A2 – other non-referred attendances to which no other item applies
- Group A5 – prolonged attendances to which no other item applies
- Group A6 – group therapy
- Group A7 – acupuncture
- Group A11 – urgent attendances after-hours
- Group A14 – health assessments
- Group A15, subgroup 1 – GP management plans, team care arrangements and multidisciplinary care plans
- Group A15, subgroup 2 – Items 735–758 - multidisciplinary case conference – medical practitioner (other than specialist or consultant physician)
- Group A17 – domiciliary and residential management reviews
- Group A18 – general practitioner attendance associated with PIP incentive payments

- Group A19 – other non-referred attendances associated with PIP incentive payments to which no other item applies
- Group A20 – general practitioner mental health treatment
- Group A22 – general practitioner after-hours attendances to which no other item applies
- Group A23 – other non-referred after-hours attendances to which no other item applies
- Group A27 – pregnancy support counselling
- Group A30 – medical practitioner telehealth attendances.

For further information of these and other MBS item numbers, please see the MBS Online webpage: <http://www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/Home>

### **Medications**

Includes all vitamins, pain killers and medications taken on a regular or ongoing basis, whether or not they were recommended by a health professional.

### **Primary Health Network (PHN)**

Primary Health Networks have been established with the key objectives of increasing the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes, and improving coordination of care to ensure patients receive the right care in the right place at the right time. The corresponding geographic areas are referred to as Primary Health Networks. For further information on PHNs, please see the Health webpage: <http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Home>

### **Remoteness Areas**

Broad geographical regions that share common characteristics of remoteness based on the Remoteness Structure of the ABS's Australian Statistical Geographical Standard. The classification includes a Remoteness Structure which divides Australia into six broad regions called Remoteness Areas. The purpose of the Remoteness Structure is to provide a classification for the release of statistics that inform policy development by classifying Australia into large regions that share common characteristics of remoteness, based on physical distance from services.

### **Self-assessed health status**

A person's general assessment of their own health against a five point scale from excellent through to poor.

### **Specialist doctors**

A specialist doctor requires a referral from a doctor. This does not include specialist doctors that were seen overnight in hospital. Examples of specialist doctors include dermatologists, cardiologists, neurologists and gynaecologists.

### **Statistical Area Level 3 (SA3)**

The SA3s provide a standardised regional breakup of Australia. The aim of SA3s is to create a standard framework for the analysis of ABS data at the regional level through clustering groups of SA2s that have similar regional characteristics. SA3s are built from whole SA2s and aggregate directly to SA4s in the Main Structure. SA3s do not cross State and Territory borders. These boundaries generally reflect a combination of widely recognised informal regions as well as existing administrative regions such as State Government Regions in rural areas and Local Government Areas in urban areas.

### **Statistical Area Level 4 (SA4)**

The SA4 regions are the largest sub-State regions in the Main Structure of the ASGS. They are designed for the output of labour force data and reflect labour markets within each State and Territory within the population limits imposed by the Labour Force Survey sample. SA4s provide the best sub-state socio-economic breakdown in the ASGS and in rural areas generally represent aggregations of multiple small labour markets with socioeconomic connections or similar industry characteristics.

SA4s are built from whole SA3s and aggregate directly to State/Territory in the Main Structure and Greater Capital City Statistical Areas. SA4s do not cross State and Territory borders.

# QUALITY DECLARATION - SUMMARY

## INSTITUTIONAL ENVIRONMENT

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see [ABS Institutional Environment](#).

## RELEVANCE

The 2016 Survey of Health Care (SHC) collected information from people aged 45 years and over who had visited a general practitioner (GP) at least once in the 12 months prior to the selection of the sample. The SHC was a voluntary self-enumerated paper form survey designed to collect information about:

- how well health care is coordinated in different parts of our country
- variations in the quality of health care in different areas
- how to provide better health care for all.

Detailed information on the following topics was collected:

- GP services
- Usual place of care
- Specialist doctors
- Medications
- Tests, x-rays and scans
- Emergency department (ED)
- Hospital
- Physical health
- Emotional or psychological health
- Long-term conditions
- General demographic information

Information from the SHC will be used by a wide range of public and private sector agencies, in particular the Australian Institute of Health and Welfare and will provide the community with information on how their health care system is performing. It will show whether people are getting the right care at the right place and at the right time.

The data items available in this release can be found in the Data Item List in the [Downloads](#) tab.

## TIMELINESS

This is the first iteration of the SHC. The SHC was collected from April to June 2016 and data is released approximately one year after enumeration.

## ACCURACY

The SHC was designed to provide reliable estimates at the national level and at the Primary Health Network (PHN) level.

The Department of Human Services (DHS) randomly selected persons aged 45 years and over and who had seen a GP in the last 12 months prior to the selection of the sample from the Medicare Australia Enrolment Database. The SHC was a voluntary self-enumerated paper based survey where the survey and associated engagement materials were mailed out to the respondent by the DHS on behalf of the ABS. The sample of the SHC was 123,979 persons and 35,495 persons responded, giving a response rate of 29%. Data from the SHC were compared against data from other statistical collections. This is a usual practice, undertaken in order to verify that the estimates produced are broadly representative of the population in scope. While there are some differences between the sample distribution from the Survey of Health Care and the known population distribution by age, sex, SEIFA and PHN, these have been taken into account by the weighting process. For more information see the [Explanatory Notes](#) for a comparison between the SHC, the Patient Experience Survey 2015-16 and the National Health Survey 2014-15.

Estimates in this publication are subject to sampling and non-sampling errors. Sampling error is the error associated with taking a sample of people rather than going to all people in the target population. In this publication the sampling error is measured by the relative standard error (RSE), the standard error expressed

as a percentage of the estimate. Non-sampling errors can occur in any data collection, whether based on a sample or a full count such as a census. Sources of non-sampling error include non-response bias, errors in reporting by respondents and errors in coding or processing of data. Every effort is made to reduce the non-sampling error by careful design and testing of questions, follow-up of respondents and extensive editing and quality control procedures at all stages of data processing. As with all collections, non-response bias is assumed to exist in this collection, however, it is not possible to quantify the impact.

Estimates and RSEs in this publication have been assessed to ensure the confidentiality of those individuals and dwellings contributing to the survey. A technique has been developed to randomly adjust each estimate prior to publication, based on the mathematical method of perturbation. These adjustments result in estimates being affected by a small introduced random error, sufficient to ensure the un-weighted units counted within the estimate remain confidential. In most cases, perturbation will have only a small impact on the estimate, while ensuring the information value of the published data as a whole is not impaired.

## **COHERENCE**

Due to differences in collection methods and question wording, health data collected in the SHC may not be comparable with data from other ABS health surveys, such as the Patient Experience Survey, the Australian Health Survey, and the Survey of Disability, Ageing and Carers.

Also, due to differences in the legislative environment and the way health care is delivered and paid for in other countries, the SHC may not be comparable to data from international collections, such as the New Zealand Patient Experience Survey and the Statistics Canada: Experiences with Primary Health Care 2008 survey.

## **INTERPRETABILITY**

This publication contains tables and a summary of findings to assist with the interpretation of the results of the survey. Detailed Explanatory notes, a Technical note on Data Quality and a Glossary are also included providing information on the terminology, classifications and other technical aspects associated with these statistics.

## **ACCESSIBILITY**

The tables contained in the downloads tab of this publication are available on the ABS website, in spreadsheet format. The spreadsheet also presents relative standard errors (RSEs) relating to estimates and Margins of Error for proportions for each publication table.

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070, or email [client.services@abs.gov.au](mailto:client.services@abs.gov.au). The ABS Privacy Policy outlines how the ABS will handle any personal information that you provide to us.

## **ABOUT THIS RELEASE**

Contains summary results from the 2016 Survey of Health Care (SHC) conducted throughout Australia during the period of April 2016 to June 2016. This release contains summary data on a range of health care services, including experiences with a general practitioner (GP), usual place of care, specialist doctors, medications, tests, x-rays and scans, emergency departments, hospitals, physical health, emotional and psychological health and long-term health conditions for those aged 45 years and over who had seen a GP in the 12 months prior to the selection of the sample.



## INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070.

