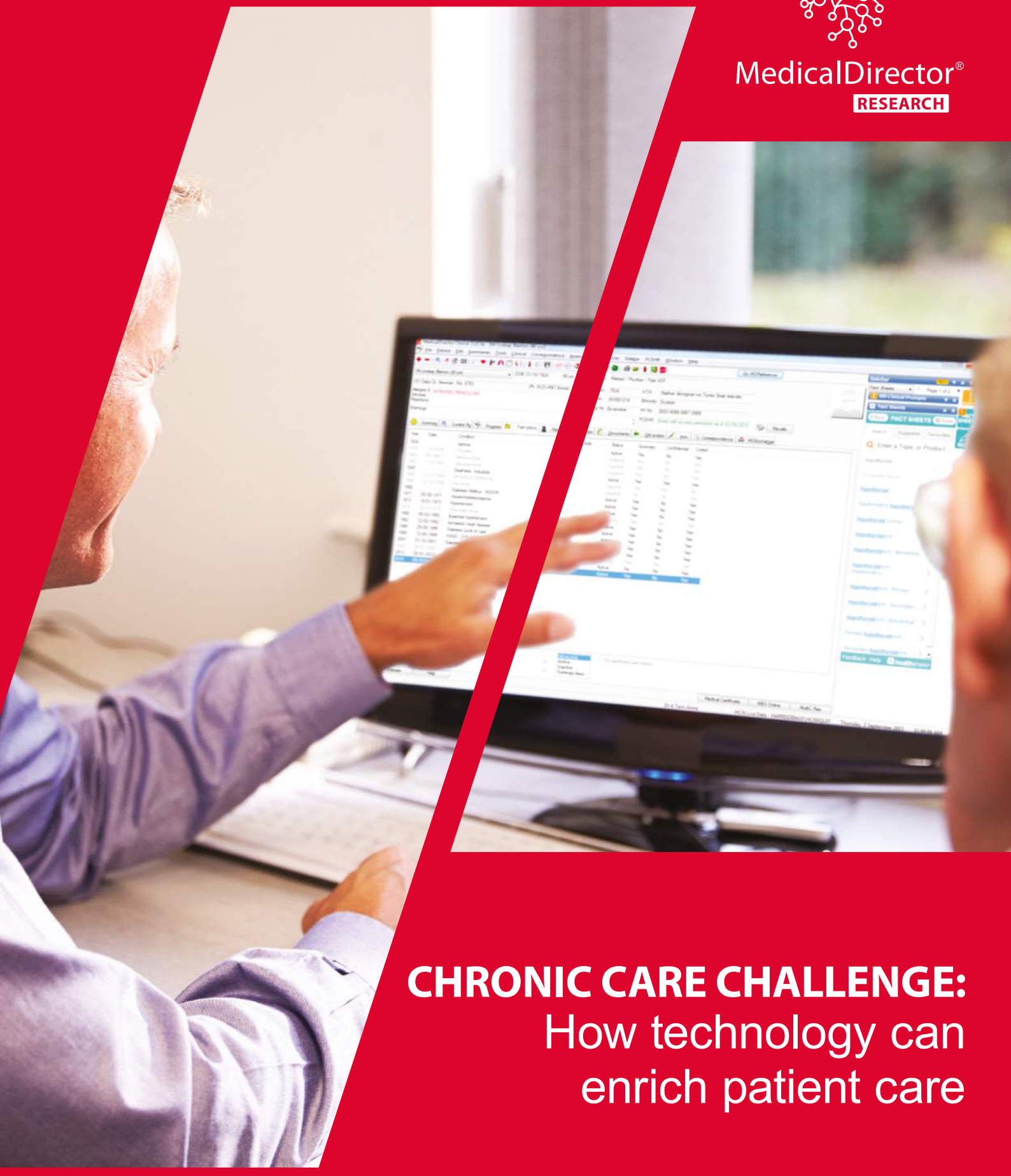
MedicalDirector®
RESEARCH



CHRONIC CARE CHALLENGE:
How technology can enrich patient care

"The results clearly show the growing burden on primary care to manage complex, ongoing conditions."

Foreword

Dear colleagues,

For the past 20 years, MedicalDirector, formerly known as HCN (Health Communication Network), has been looking for ways to better capture patient data in order to both assist and inform General Practice.

Through our General Practice Research Network (GPRN), a nationally representative cohort of GPs that provide quality, de-identified patient-based research, we are able to analyse everything from reason for visit to reason for prescribing. Since 1999, more than 1,300 GPs have contributed to a longitudinal patient-based database containing more than 44 million encounters of more than four million patients.

In addition to the GPRN data, MedicalDirector regularly surveys clinicians who use our software to aid the development of new and more efficient ways of supporting medical practices and their patients.

Managing chronic disease is an ongoing issue in General Practice. As the number of patients presenting with chronic disease rises, so too do administration costs and government requirements.

For this whitepaper, we've used our GPRN data to analyse trends in chronic disease and combined this with a survey of more than 320 clinicians from across Australia, to uncover their most pressing challenges.

The survey identified clinicians' biggest concern is engaging patients to manage their chronic conditions. More than 70 per cent of clinicians are creating more chronic disease management plans than they used to, with almost 40 per cent creating care plans every day.

The results clearly show the growing burden on primary care to manage complex, ongoing conditions. So how can we make this easier or find a better way?

MedicalDirector is developing a number of innovations to enable practices to manage patients with chronic disease more easily. This includes a new patient mobile app containing health information and tools to support their care journey and MedicalDirector Insights, a practice analytics application to identify, manage and report on chronic disease patients.

In addition, new HealthLink Forms allows GPs to complete third-party templates with pre-populated patient data from MedicalDirector Clinical, submitted electronically using HealthLink secure messaging, including status tracking updates, saving the practice time and improving patient care.

MedicalDirector continually works with the Federal Government to further enhance e-health changes, so that clinicians and patients can work closer together to manage chronic disease.

It is our belief that clinicians and patients are partners in managing chronic disease. In this way we are looking for solutions that will benefit both parties.

Dr Andrew Magennis
Chief Medical Officer
MedicalDirector

Contents

About our data

The information in this whitepaper has been compiled from two data sources. The first data source is the GPRN, a national network of Australian General Practioners (GPs) who supply de-identified data on a weekly basis that is used to support research and development in general practice.

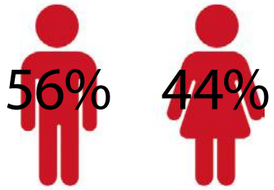
Of the more than 16,000 Australian clinicians who use MedicalDirector, the GPRN is a nationally representative random sample of GPs who form part of an ongoing observational cohort of GPs and practices. The GPRN aims to maintain an active sample of more than 390 GPs.

For this review of chronic disease in Australia, we analysed more than 145,700 unique de-identified patient records; supplied between 2010 and 2014.

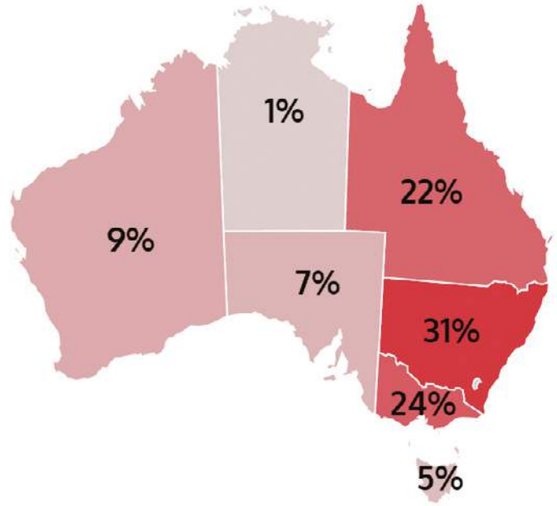
Our second data source includes results from an online survey of more than 320 clinicians conducted throughout August and September 2015.

Comments included in this whitepaper have been taken from the survey responses, as well as qualitative interviews with clinicians.

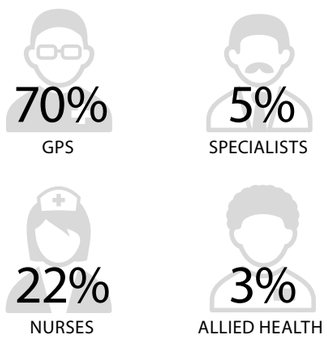
GPRN DEMOGRAPHICS BY GENDER



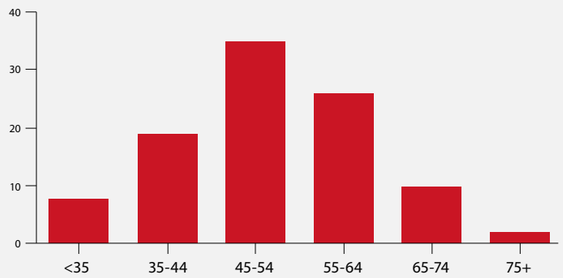
GPRN DEMOGRAPHICS BY LOCATION



SURVEY RESPONDENTS



GPRN DEMOGRAPHICS BY AGE



Chronic disease in Australia

With changing lifestyles and an ageing population, chronic diseases now cause most of the burden of ill health and account for 90 per cent of all deaths in Australia.[1] Treatment and management of chronic disease can require a variety of health services; however GPs are usually the initial point of contact.

Analysis of our General Practice Research Network (GPRN) data over the past five years (2010 - 2014) shows the number of patients with chronic conditions have increased year on year, as have the number of patient visits.

Hypertension (high blood pressure), depression and arthritis are the most common chronic conditions reported and have seen a steady increase, year on year.

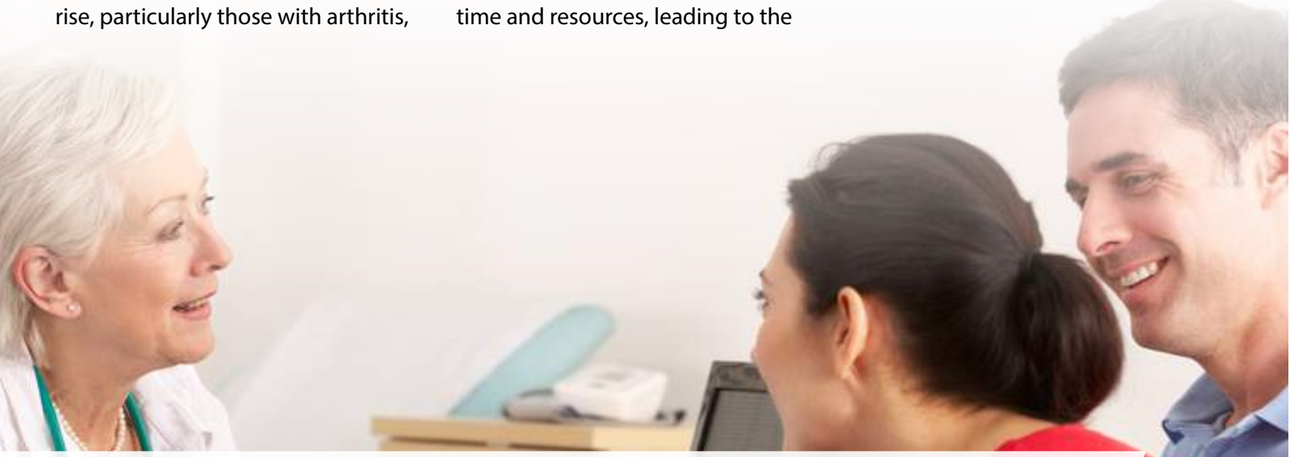
Meanwhile, patient visits for some chronic diseases are also on the rise, particularly those with arthritis, depression and diabetes.

The number of patients with multiple conditions or comorbidities is growing as well. The most common comorbid chronic conditions are arthritis and hypertension. Patients with two to three chronic conditions visit their doctors the most frequently.

It is also important to note that the average duration of a GP consultation for chronic conditions is significantly longer than for non-chronic conditions; and they're getting even longer. The average length of a chronic condition consultation has increased from 17 minutes to 21 minutes. The average length of a non chronic condition consultation has increased from 14 minutes to 17 minutes.

It is clear from this data that chronic disease is taking up an increasing amount of health professionals' time and resources, leading to the need for more support. Improving chronic disease management in General Practice will help reduce overall healthcare costs by avoiding costly hospital admisions. The Royal Australian College of General Practitioners recently stated that greater investment in general practice to improve management of chronic conditions could achieve a 30 per cent reduction in preventable hospitalisations – saving $700 million a year in hospital costs.[2]

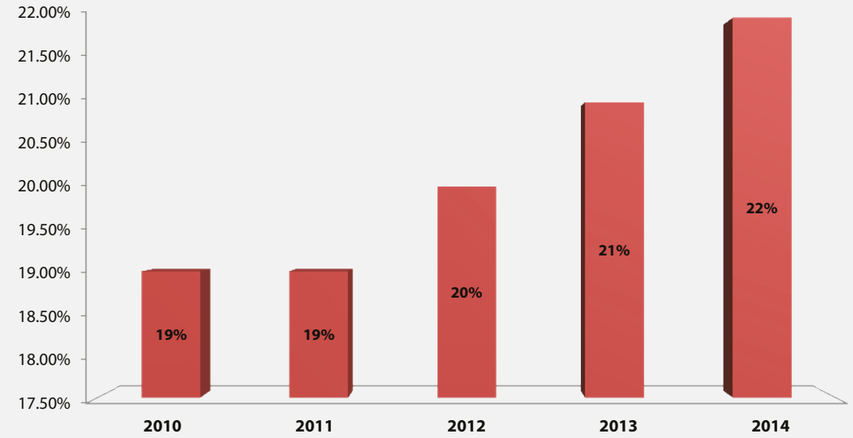
The Federal Government has also acknowledged that the current health system is not set up to effectively manage chronic or long-term conditions. A recent discussion paper released by the Primary Health Care Advisory Group points to the need for further Medicare reform along with cost-effective technology to help both patients and practitioners manage chronic conditions.[3]



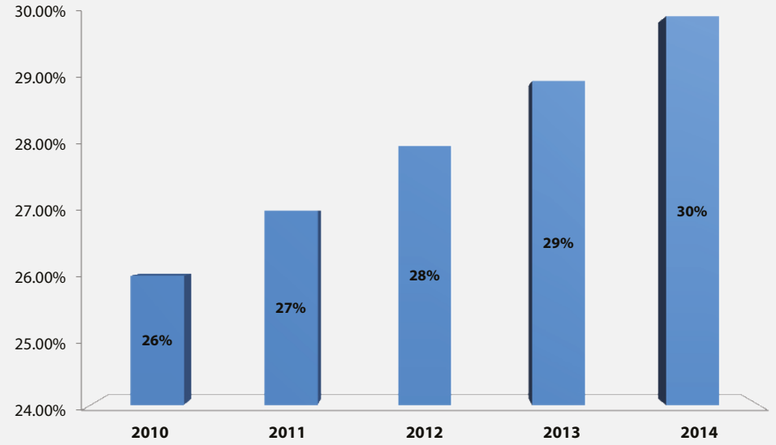
Many different illnesses and health conditions can be classified under the broad heading of chronic disease. They often coexist, share common risk factors and are increasingly being seen as acting together to determine the health status of individuals.[4]

PERCENTAGE OF CHRONIC CONDITION VISITS

Patient visits for chronic conditions* have risen to 22 per cent - almost a quarter of all patient visits.



PERCENTAGE OF UNIQUE PATIENTS WITH CHRONIC CONDITION(S)



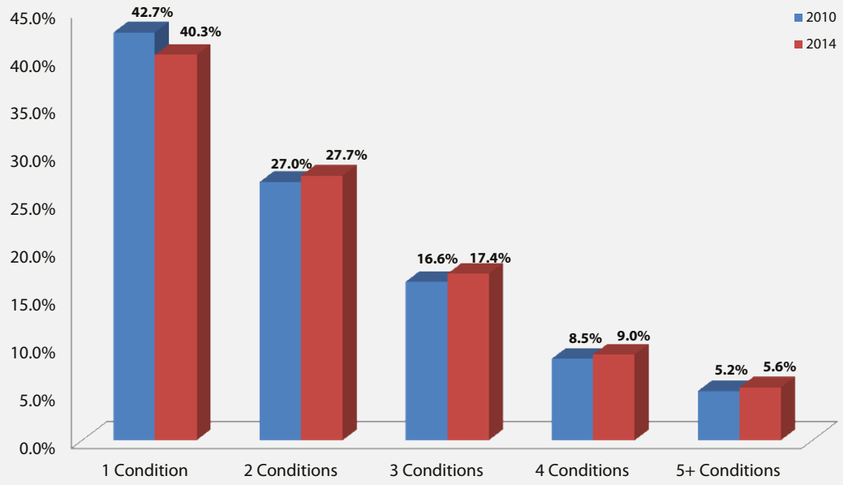
Almost one in three patients now present with chronic conditions, compared with about one in four in 2010.

*Chronic conditions include:

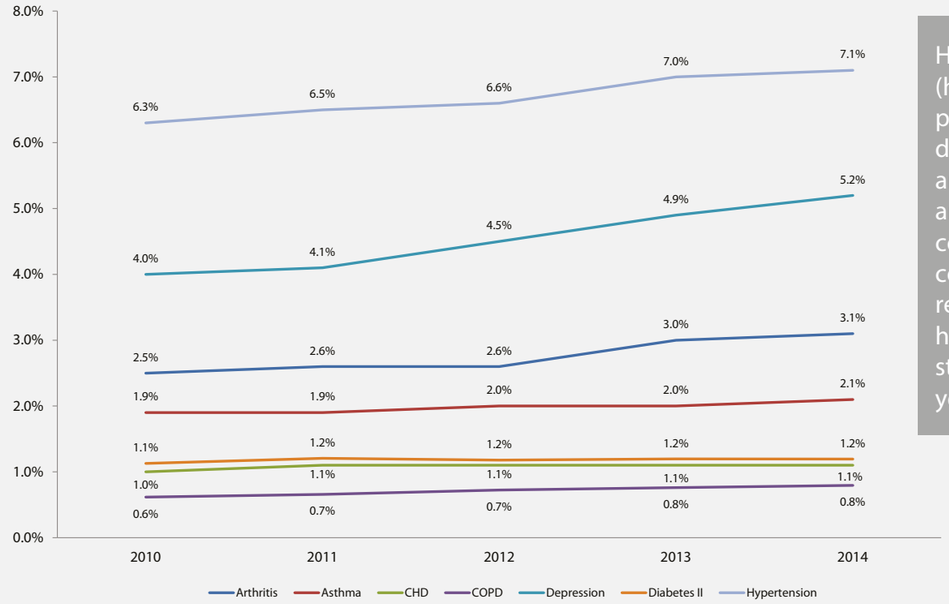
- cardiovascular conditions (such as coronary heart disease, stroke and hypertension)
- cancers (such as lung and colorectal cancer)
- mental disorders (such as depression)
- diabetes
- respiratory diseases (including asthma and chronic obstructive pulmonary disease)
- arthritis, osteoporosis and other musculoskeletal conditions
- chronic kidney disease

UNIQUE PATIENTS BY NUMBER OF CONDITIONS

The number of patients presenting with multiple conditions is growing. 59.7% of patients have two conditions or more.



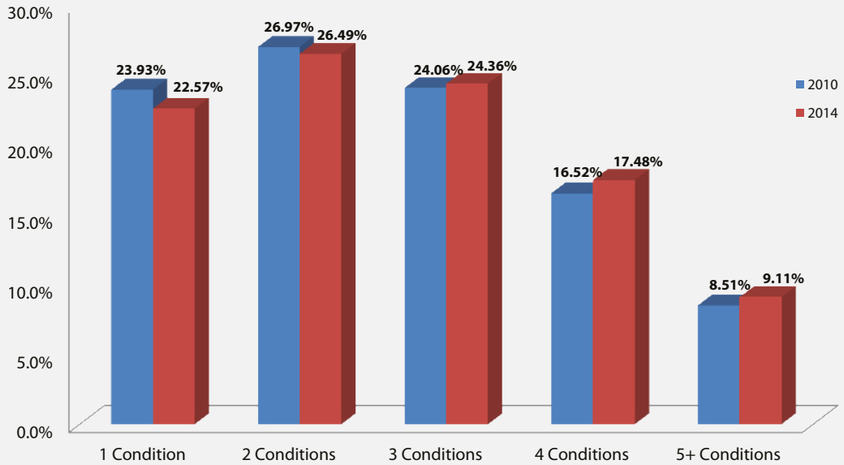
PERCENTAGE OF CHRONIC CONDITION VISITS ACROSS YEARS



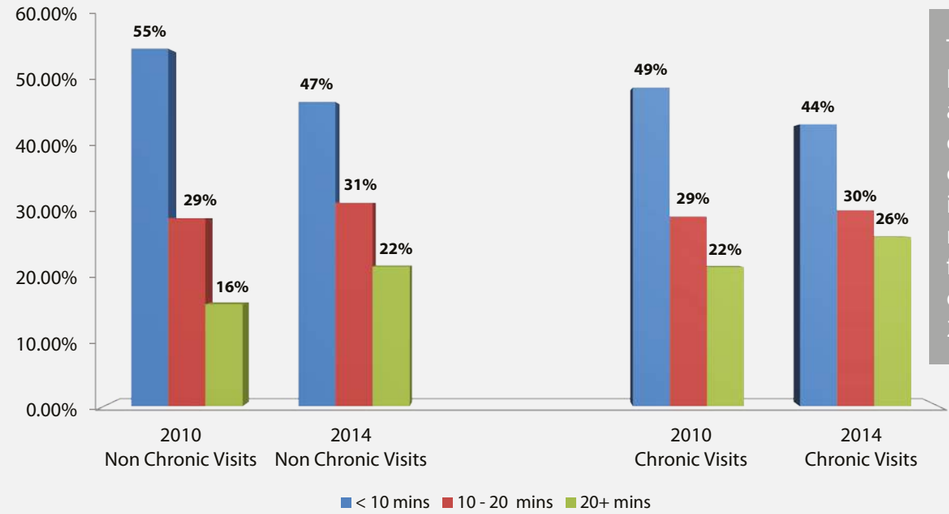
Hypertension (high blood pressure), depression and arthritis are the most common chronic conditions reported and have seen a steady increase, year on year.

PATIENT VISITS BY NUMBER OF CONDITIONS

Patients with two to three conditions visit their doctors the most, while the frequency of visits for three or more conditions is increasing.



CONSULTATION DURATION BY TYPE OF VISIT



The average length of a chronic condition consultation has increased to 21 minutes in 2014, from an average of 17 minutes in 2010.

Mixed response to care planning

The aim of a GP management or care plan is to help people with chronic medical conditions by providing an organised approach to care.[5]

This plan:

- identifies the patient's health and care needs
- sets out the services to be provided by the GP
- lists the actions the patient can take to help manage their condition

Consistent with the data collected from the GPRN, the clinicians who took part in MedicalDirector's recent survey say they are creating more care plans than ever before.

Overwhelmingly, 70 per cent of those surveyed use and or create more care plans than they did 12 months ago; 76 per cent are creating them at least once a week including almost 40 per cent who create plans every day.

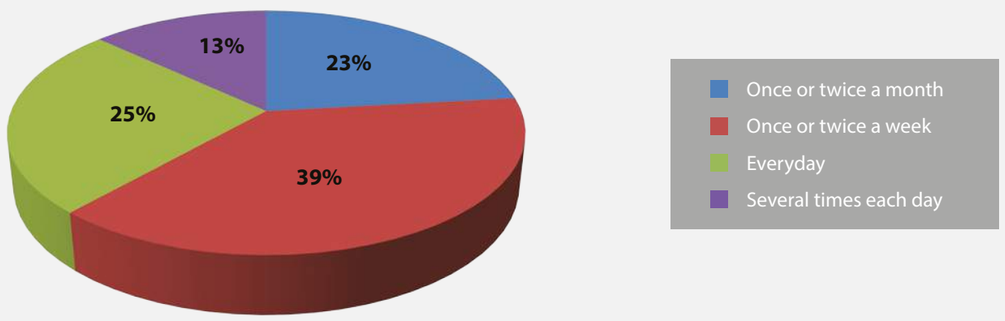
With frequency of use in mind, care plans need to be simple and time-efficient to implement. Therefore, almost all clinicians surveyed use an electronic method to develop them.

More than 60 per cent use the care plan templates in their clinical management software, however some clinicians use other methods as well; such as making notes in the patient's electronic clinical records, or using a dedicated care plan management system. Another 15 per cent use their own bespoke templates to manage chronic conditions.

While the majority (70 per cent) of clinicians rated chronic disease management care plans as useful – giving them an average rating of 6.6 on a scale of one to 10 – comments about their effectiveness were mixed. More than a quarter of clinicians said a key hurdle was patients' not understanding their care plan and this is a vital area for improvement, both in technology and education.

"I definitely create more care plans. The largest increase is in mental health care plans. It's possible that I attract patients who need mental health assessment because of my areas of interest, however I think there's a general increase."
- GP, MELBOURNE

FREQUENCY OF CARE PLAN USE FOR CHRONIC DISEASE



OPINIONS ON CARE PLANNING

"It helps to have the plan clearly written down to remind patients of the strategies discussed and decided upon, hence reinforcing their ownership of their healthcare."
- GP, REGIONAL NSW

"It gives the patient an outline of their chronic known problems, and what they should do about them. This at least is a document to help them address and remind them of what needs to be done, and have these things assessed and followed up."
- GP, MELBOURNE

"Once patients are educated about the role of care plans, they start to see the benefits and become more motivated in practicing a preventative style of medicine."
- GP, TASMANIA

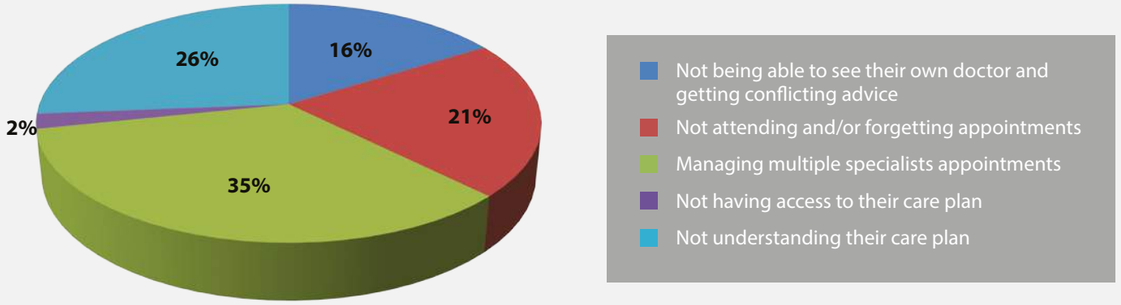
"The care plans create an initial flurry of activity but in the medium to long term there are ineffective systems in place to continually engage the patient."
- GP, MELBOURNE

"Patients with a lot of comorbidities and poly-pharmacy have difficulties with navigating through their plan; it is big and looks very complicated to them. Some patients don't agree they have so many conditions and some don't want to know. I found that educated patients are coping well but non-educated are finding plans difficult and never read them."
- GP, REGIONAL NSW

"I think comprehensive care is well summarised with care plans but the paper work is ineffective for the majority of my patients."
- GP, REGIONAL NSW

Patient roadblocks

BARRIERS TO EFFECTIVELY MANAGING CHRONIC DISEASE



There are a number of challenges in managing chronic disease, particularly when it comes to the partnership between practitioner and patient.

More than 55 per cent of clinicians say engaging patients to manage their condition is the biggest barrier to effectively managing chronic disease. According to clinicians, the main challenges for their patients are managing multiple specialist appointments (35 per cent), followed by not understanding their care plan (26 per cent), and forgetting or not attending appointments (21 per cent).

Health technology can assist patients with chronic disease and improve decision-making by triggering the delivery of relevant health information directly to patients. This could be done through the use of a smart-phone app or even relevant email or text messages.

A number of organisations already provide patient-focused information and fact sheets that can assist in the understanding of chronic conditions. Some of these are incorporated into MedicalDirector clinical software for use by GPs during consultations such as Healthshare Fact Sheets.

MedicalDirector is also launching with RealTime Health - an online repository of patient stories, with over 800 video clips on more than 100 health topics. However, there is significant capacity to improve patient education both in, and outside, the clinic.

"I feel the role of the health professional is to inform and guide. The patient is the person responsible for accepting and carrying out the instructions of the doctors."

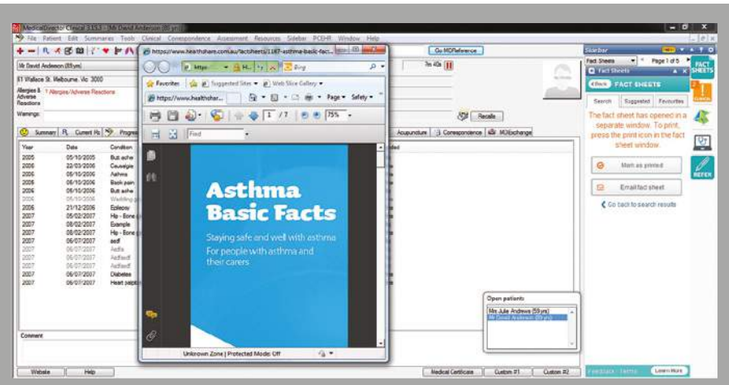
- GP, SYDNEY

"Chronic disease is complex. You only do care plans for complex patients and it's difficult for some patients to actually stay on top of it,"

- GP, REGIONAL VICTORIA

Healthshare Fact Sheets

The Healthshare Fact Sheets tool is a new resource in MedicalDirector's Sidebar. It provides an easy way to access a wide range of high quality clinical fact sheets. Integrated with MedicalDirector, the Fact Sheets tool enables you to find the fact sheet you need and share it with your patients at the time of clinical consultation.[6]



With chronic disease, the patient's life is irreversibly changed. Neither the disease nor its consequences are static. They interact to create illness patterns requiring continuous and complex management … The key to effective management is understanding the different trends in the illness patterns and their pace. The goal is not cure but maintenance of pleasurable and independent living.[7]

The way forward

Secure electronic messaging is at the forefront of most clinicians' minds when it comes to improving management of chronic disease. Almost 90 per cent of survey respondents said it would be beneficial or very beneficial to have a secure electronic method to communicate with their colleagues and allocate responsibilities according to a care plan.

However, while communicating with colleagues electronically is top of mind for GPs, many specialists and allied health professionals do not use electronic clinical management systems.

According to clinicians surveyed, 42 per cent say online records that collate patient's history and are accessible by other clinicians are the way forward in terms of managing chronic disease. Another 27 per cent say health related phone or tablet apps to help patients understand and manage their care plan would have the most benefit.

MedicalDirector has been working on a range of innovations to help practices manage their patients more easily.

The next release of MedicalDirector Clinical and PracSoft includes a **redesigned recall workflow** with search, filter, export and reporting capabilities. The new recall workflow also links to PracSoft to match appointments, enabling better patient management, particularly those with chronic disease. MedicalDirector Clinical allows practices to send an SMS to patients for recalls and results notifications and MedicalDirector PracSoft now includes an SMS reply function to manage appointment confirmations more easily.

MedicalDirector Insights is a new practice analytics application to help identify, manage and report on patient cohorts such as chronic disease.

New **HealthLink Forms** allows GPs to complete third-party templates with pre-populated patient data from MedicalDirector Clinical, submitted electronically using HealthLink secure messaging, including status tracking updates; saving the practice time and improving patient care.

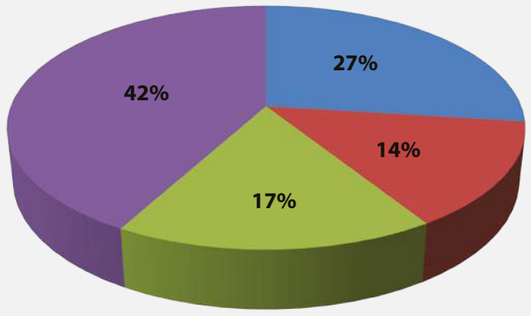
A new **patient mobile app** will allow patients to book online appointments, receive reminders, tools and health information to support their care.

This paper has revealed changing trends in the impact of chronic disease on General Practice and how GPs are handling these changes.

Chronic disease is not new. The first known mention of diabetes symptoms, for example, was approximately 1552 B.C.[8] What is new however, is that patients are much better informed about their conditions and clinicians and patients have access to ever improving modern technology, assisting them to better work together to keep both of their lives as productive as possible.

For more information visit:
www.medicaldirector.com

TECHNOLOGY TRENDS CLINICIANS SAY CAN IMPROVE OUTCOMES



- Health-related phone/tablet apps to help patients understand and manage their care plan
- Online appointment booking services and automated reminders for patients
- Telemedicine to allow patients regular access to health services without the need for transport
- Online records that collate patients' history and are accessible by other clinicians

"Ninety per cent of the letters we receive back from specialists are on paper. This creates work for us of course. Also, I have yet to receive electronic correspondence from a podiatrist, physiotherapist or psychologist."
- GP, MELBOURNE

"I think that the electronic sharing of information is the way to go. It's more easily transferred and more accessible."
- GP, REGIONAL VICTORIA

References

1 Australian Institute of Health and Welfare 2015; online <http://www.aihw.gov.au/chronic-diseases/>

2 The Royal Australian College of General Practitioners. Vision for general practice and a sustainable healthcare system. Melbourne: RACGP; 2015.

3 Primary Health Care Advisory Group Discussion Paper August 2015

4 Australian Institute of Health and Welfare 2014 Australia's health 2014. Australia's health series no. 14. Cat. no. AUS 178. Canberra: AIHW.

5 Australian Government Department of Health 2014; online <http://www.health.gov.au/internet/main/publishing.nsf/content/mbsprimarycare-chronicdisease-pdf-infosheet>

6 Healthshare Fact Sheets; online <http://www.healthsharefactsheets.com.au/get-started/medical-director/#where-do-the-fact-sheets-come-from>

7 Holman H, Lorig K. Patients as partners in managing chronic disease : Partnership is a prerequisite for effective and efficient health care. *BMJ : British Medical Journal*. 2000;320(7234):526-527.

8 Hesy-Ra, an Egyptian physician, documented frequent urination as a symptom of a mysterious disease that also caused emaciation.

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