International Series: Integration of community pharmacy in primary health care

Primary health care policy and vision for community pharmacy and pharmacists in Australia

Sarah DINEEN-GRIFFIN , Shalom I. BENRIMOJ , Victoria GARCIA-CARDENAS . Published online: 15-Mav-2020

Abstract

There is evidence that the Australian Government is embracing a more integrated approach to health, with implementation of initiatives like primary health networks (PHNs) and the Government's Health Care Homes program. However, integration of community pharmacy into primary health care faces challenges, including the lack of realistic integration in PHNs, and in service and remuneration models from government. Ideally, coordinated multidisciplinary teams working collaboratively in the community setting are needed, where expanding skills are embraced rather than resisted. It appears that community pharmacy is not sufficiently represented at a local level. Current service remuneration models encourage a volume approach. While more complex services and clinical roles, with associated remuneration structures (such as, accredited pharmacists, pharmacists embedded in general practice and residential aged care facilities) promote follow up, collaboration and integration into primary health care, they potentially marginalize community pharmacies. Community pharmacists' roles have evolved and are being recognized as the medication management experts of the health care team at a less complex level with the delivery of MedChecks, clinical interventions and medication adherence services. More recently, vaccination services have greatly expanded through community pharmacy. Policy documents from professional bodies highlight the need to extend pharmacy services and enhance integration within primary care. The Pharmaceutical Society of Australia's Pharmacists in 2023 report envisages pharmacists practising to full scope, driving greater efficiencies in the health system. The Pharmacy Guild of Australia's future vision identifies community pharmacy as health hubs facilitating the provision of cost-effective and integrated health care services to patients. In 2019, the Australian Government announced the development of a Primary Health Care 10-Year Plan which will guide resource allocation for primary health care in Australia. At the same time, the Government has committed to conclude negotiations on the 7th Community Pharmacy Agreement (7CPA) with a focus on allowing pharmacists to practice to full scope and pledges to strengthen the role of primary care by better supporting pharmacists as primary health care providers. The 7CPA and the Government's 10-year plan will largely shape the practice and viability of community pharmacy. It is essential that both provide a philosophical direction and prioritize integration, remuneration and resources which recognize the professional contribution and competencies of community pharmacy and community pharmacists, the financial implications of service roles and the retention of medicines-supply roles.

Keywords

Pharmacies; Primary Health Care; Delivery of Health Care, Integrated; Ambulatory Care; Community Health Services; Pharmacists; Community Pharmacy Services; Professional Practice; Australia

AUSTRALIAN HEALTH CARE AT A GLANCE

The Australian population was estimated to be 25.7 million in May 2020. Australia is considered to have a world class health system. While Australians generally enjoy positive health outcomes, it is recognized the health system is under increasing strain from the rising rates of chronic illness and an ageing population. The clinical and economic burden represents a major challenge for the optimal provision of healthcare. The rapid change has resulted in major health system reform that is likely to continue over the coming years to improve patient access, enhance primary care, capitalize on technology, ensure a future-ready health workforce and deliver cost-effective health outcomes.

Australia has a mixed-model of public and private health care, based on the principle of universal access. Australia's health system is underpinned by Medicare, a universal public health insurance program which provides rebates

Sarah DINEEN-GRIFFIN. PhD, GradCertPharmPrac, MPharm, BBSci. University of Technology Sydney. Sydney, NSW (Australia). Sarah.Dineen-Griffin@uts.edu.au Shalom I. BENRIMOJ. PhD, BPharm (Hons). University of Granada. Granada (Spain). shalom.benrimoj@gmail.com Victoria GARCIA-CARDENAS. PhD, MPharm, BPharm. University

Victoria GARCIA-CARDENAS. PhD, MPharm, BPharm. University of Technology Sydney. Sydney, NSW (Australia).

Victoria.GarciaCardenas@uts.edu.au

against the cost of medical fees for Australians.² This is funded partly by a Medicare levy on taxable income, with any shortfall being met by the government from general revenue.⁷ About 80% of general practitioner (GP) visits incur no patient out-of-pocket costs because the fee is paid directly by the government, while Australians are eligible to be treated in a public hospital without charge.²

Australia's health system is complex and is managed by all levels of Australian government including federal and state or territory.8 This complexity is reflected in its funding arrangements at all levels of government. Non-government organizations and private health insurers also provide funding while individuals pay out-of-pocket expenses for a number of products and services without full (or only partial) reimbursement. Spending on health has grown by 50% (after adjusting for inflation) between 2006-2007 and 2015-2016, from AUD 113 billion to AUD 170 billion. Total health spending was AUD 185.4 billion in 2017-2018 (or AUD 7,485 per person).9 Hospitals (40%) and primary health care (34%) accounted for three-quarters of total health spending. 9 Governments funded the majority (AUD 77.1 billion by the federal government; AUD 49.5 billion by state and territory governments) and non-government sources funded the remaining amount.9

The federal government is responsible for leading the development of national health policy, subsidizing primary



health care services and providers through the Medicare Benefits Scheme (MBS), providing funds to states and territories for public hospital services, oversight of Primary Health Networks (PHNs), regulating private health insurance and funding medical research. 8,10 Importantly, the federal government funds the national universal Pharmaceutical Benefits Scheme (PBS) providing timely and affordable access to prescription medicines at Governmentsubsidized prices. Currently, the PBS patient co-payment is AUD 41 for general patients and AUD 6.60 for concessional patients per medicine, with thresholds in place for total patient contributions. 11 Prescription medicines below these prices are paid in full by general patients. The federal government influences the cost of the PBS by determining which pharmaceuticals to list and negotiating the price with suppliers.8 The federal government funds community pharmacies to dispense and supply medicines under the PBS, alongside pharmacy services, an arrangement implemented through the Community Pharmacy Agreement (subject to renegotiation every five years).8

State and territory governments are responsible for managing public hospital and Local Hospital Network (LHN) performance. The states are also responsible for funding and providing a range of community health services, including ambulance services, public dental care, and mental health care, with assistance from the federal government. Description of the services are responsible for funding and providing are also responsible for funding and providing are also responsible for funding and providing are also responsible for managing public hospital networks.

COMMUNITY PHARMACY IN AUSTRALIA

The community pharmacy sector plays an important role in the Australian health care system. With the average Australian visiting a community pharmacy eighteen times a year, the sector provides accessible and timely care. There were 32,412 registered pharmacists in December 2019, and 5,797 community pharmacies in Australia. Pharmacists are trained at university level, accredited by state or territory registration boards, and subject to federal and state or territory government regulations. This role community pharmacist is dispensing medicines. This role couples clinical review of prescriptions, and professional activities such as counselling to ensure safe and effective use of medicines. The current scope of community pharmacy practice remains heavily dependent economically on the dispensing and provision of medicines.

The ownership of community pharmacy is controlled at the state level, with the number of pharmacies owned by a single pharmacist being dependent on legislation. There are also location rules (i.e., for the establishment of a new pharmacy or relocation of an existing pharmacy) to supply PBS medicines.¹⁷

POLICY CONTEXT IN AUSTRALIA

National Medicines Policy

Australia's National Medicines Policy (NMP), implemented 20 years ago, seeks to provide overarching policy direction around four key interlinked pillars including, timely access; medicines meeting standards of safety and efficacy; quality use of medicines (QUM); and maintaining a responsible and viable medicines industry. ^{18,19} In 2019, the Federal Health

Minister Greg Hunt MP announced a review of Australia's NMP. Recommendations for the next iteration have emphasized measuring health outcomes that are valued and relevant to patients. 20

Medicines Safety: the 10th National Health priority area

In November 2019, health ministers agreed to make medicines safety the 10th National Health priority area. The Government responded to findings of both the Interim report of the Royal Commission into Aged Care, and the Pharmaceutical Society of Australia's Medicine Safety: Take Care report. The latter report identified 250,000 avoidable hospital admissions annually due to medication problems, and 400,000 emergency department presentations as a result of errors, inappropriate use, misadventure and drug interactions. At least half of these problems were considered preventable. Medicine misadventure costs Australia AUD 1.4 billion annually. All controls are sufficient to the second controls and sufficient to the second controls are sufficient to the second controls and sufficient to the second control of the second controls are sufficient to the second control of the sec

Integrated primary health care

Integrated care is a multifaceted concept often contraposed to fragmented or episodic care, and is used synonymously with terms like coordinated care and seamless care, among others. 25,26 The Australian Government's Productivity Commission released a report identifying issues with the Australian health system including the lack of integrated care, insufficient patientcentered care, and a need to focus funding towards innovation or clinical and economic outcomes.²⁷ The Strategic Framework for Integrating Care report in 2018 sets a vision of integrated care in Australia. 28 The drivers of this interest in integrated care are: optimized resource investment; coordination of care across different settings; reduced duplication of services; improved health of the population and; greater health literacy and self-care.²⁸ Federal and state or territory governments have progressed implementation to deliver integrated care in Australia.²⁸ Multiple strategies are being employed including health reform and implementation of integrated service models. 29-31

Primary health networks – primary health care organisations

A policy response was the establishment of a network of primary health care organisations, known as PHNs. 32,33 Thirty one PHNs were established across Australia, funded by AUD 900 million, replacing the 61 Medicare Locals previously operating. This network was created to operate at a regional level with the authority and accountability to plan, integrate and coordinate primary health care at a local level. PHNs work with primary care providers (primarily GPs), hospitals, and the broader community to:

- increase the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes, and;
- improve coordination of care to ensure patients receive the right care in the right place at the right time. ³⁶

Each PHN conducts a local needs assessment to identify health and service needs within their regions and prioritizes activities (and funding) to address those needs.³⁷



The 10-year Primary Health Care Plan

The Australian Government appointed a primary health care reform steering group in 2019 to provide independent advice for the development of the 10-year Primary Health Care Plan. The steering group consists of representatives from professions including general practice, nursing, speech pathology and physiotherapy professions, with no representation from community pharmacy.³ The plan will guide primary health care resource allocation in Australia (AUD 104 billion into the health system from 2019–2020 and a total of AUD 435 billion over four years). It also aims to guide future primary health care reform for further integration as part of the Government's Long-Term National Health Plan.³

The Long-Term National Health Plan includes:

- The 2030 mental health vision;
- The 10-year Primary Health Care Plan;
- Continued improvement of private health insurance;
- The 10-year National Preventive Health Strategy, and;
- The 10-year Medical Research Future Fund investment plan.³

In the Government's 10-year Primary Health Care Plan, the Government committed to concluding negotiations on the next community pharmacy agreement ("The seventh agreement or 7CPA") focusing on pharmacists practicing to their full scope.³ It also pledged to better support pharmacists in their roles as primary health care providers.³

INTEGRATION OF COMMUNITY PHARMACY IN THE BROADER HEALTH SYSTEM

Governments are embracing a more integrated approach to health, with implementation of primary care initiatives like PHNs and the Government's Health Care Homes program. 32,33,38 However, the integration of community pharmacy into primary health care faces challenges, including the lack of realistic integration in PHNs, and in service and remuneration models from government. Ideally, coordinated multidisciplinary teams working collaboratively in the community setting are needed, where expanding skills are embraced rather than resisted. Community pharmacists need be included in PHNs' governance, decision making and advisory structures, as it appears they are not sufficiently represented at this local level.

Recent pharmacy policy documents from professional bodies highlight the need to extend community pharmacy services and enhance integration within primary health care. The Pharmaceutical Society of Australia has developed the strategic document Pharmacists in 2023 which envisages pharmacists practising to full scope and driving greater efficiencies in the health system. The report outlines eleven changes to deliver QUM by better utilizing pharmacists in the future. Key themes such as pharmacists being the 'custodians' of medication safety and their role in digital health (including My Health Record, an online platform with patient health information imputed by healthcare providers across the sector), were outlined.

The Pharmacy Guild of Australia's Community Pharmacy 2025 outlines the organizations strategic vision for viability and the future of community pharmacy as an integral part of the Australian health care system. The report identifies pharmacy as health hubs facilitating the provision of costeffective and "integrated" services to patients. The report was informed by qualitative and quantitative market research, subject experts and a strategic advisory firm.

A significant barrier to pharmacists achieving high-impact contribution as integrated members of the health team is the current state of remuneration for services. The right incentives must be provided for all health practitioners, like GPs, nurses and pharmacists to integrate services effectively, with clear responsibilities contributing to overall health outcomes. The Pharmaceutical Society recommends funding that reflects quality and complexity of pharmacist care. 16 This may be achieved through establishing practice incentive payments linked to quality measures, revising remuneration structures to account for complexity, or moving to a time-based fee structure. 16 All aspects of the pharmacist's role need to be resourced appropriately. However, there will also be specific challenges such as freeing pharmacists' time to deliver services, recording and using data to demonstrate value for the viability of community pharmacy. Without adequate funding and recognition of pharmacist's contributions to primary care, it will be difficult to ensure integration.

In the Australian Government's Response to the Review of Pharmacy Remuneration and Regulation, the government recognised the pivotal role of the community pharmacy sector. The government states that it is committed to working closely with community pharmacies and other stakeholders to address the significant pressures being placed on the health care system. As highlighted in the report Bankwest Future of Business: Focus on Pharmacy, the community pharmacy sector is positioned to expand the services available and establish themselves as local healthcare centres, further reducing the demand on hospitals and other primary health care facilities. 13,43

The Community Pharmacy Agreement

The primary driver of pharmacy policy and direction from a governmental perspective are five year agreements negotiated between the federal government and the Pharmacy Guild of Australia, with some influence and representation by the Pharmaceutical Society of Australia. The agreement sets out the remuneration associated with dispensing prescription medications and services, which in turn, determines scope of practice and roles for community pharmacy. The current agreement ("the sixth agreement or 6CPA") is due to expire on June 30th 2020. The 6CPA includes three key funding elements, namely:

- Community pharmacy remuneration;
- The Community Services Obligation funding pool;
- Community pharmacy programs. 47-50

It was originally estimated that AUD 18.9 billion was to fund community pharmacy over five years, comprising AUD 15.5 billion from the government and AUD 3.4 billion from PBS co-payments paid by patients.⁵¹ In addition, the 2017-



2018 budget included AUD 225 million in payments to community pharmacies over the remaining life of the sixth agreement to compensate for lower than forecast PBS prescription volumes. ⁵² A number of other programs have been funded throughout the life of the 6CPA.

PHARMACY PROGRAMS AND SERVICES

Australian pharmacists have long provided services to patients. The 2018 Pharmacy Barometer report indicated that 19% of community pharmacy owners (one-fifth) employ a pharmacist solely dedicated to the provision of pharmacy services. Services can be divided into those funded by the 6CPA, and services with other sources of funding (i.e., PHNs, or services paid for by the patient) (Table 1).

A total of up to AUD 1.26 billion in funding was available for pharmacy programs and services under the 6CPA.⁵⁰ This consisted of:

- AUD 613 million for the continuation of a number of programs and services from the 5CPA;
- AUD 50 million for a new pharmacy trial program (PTP);
 and
- up to AUD 600 million for new and expanded community pharmacy programs.

The 6CPA encompasses a number of areas of practice including: Medication adherence programs, Medication management programs, and other trial programs.

Medication adherence programs

Dose administration aids: (a well-sealed that allows individual medicine doses to be organized according to the prescribed dose schedule). Incentives are divided among the number of claiming pharmacies on a pro rata basis for the activity documented. In 2016, the average claim amount earned by pharmacies, per dose administration aid, was AUD 3.84. 40

Staged supply (medicines provided by the community pharmacy in instalments to patients). The service is of particular value to patients with a mental illness, drug dependency, or who are unable to manage their medicines safely (eg. people living in accommodation where there is the possibility of theft or lack of refrigeration). Pharmacies may claim payments for up to 15 patients per month. For the provision of the first staged supply, a pharmacy may claim a fee of AUD 8.12 per patient. For each subsequent supply during the same week period, the pharmacy may claim a fee of AUD 4.12 per patient.

Clinical interventions (a documented clinical activity contributing to improved medicines utilization, QUM, or reduced adverse outcomes). Reimbursement is based on the number of interventions within a defined period of time per pharmacy. Payment is subject to a cap of 3.5% of prescription volume for individual pharmacies. ⁶¹ Incentives are divided among the number of claiming pharmacies on a pro rata basis for the activity documented. In 2016, the average amount remunerated per intervention was AUD 3.40. ⁶⁰

Medication management programs

MedsCheck and Diabetes MedsCheck: (an in-pharmacy medicines review service between the patient and community pharmacist to improve QUM and patient outcomes). A diabetes MedsCheck builds on the format of a MedsCheck service focusing specifically on patient's with type 2 diabetes. Pharmacies are subject to a combined service cap of twenty MedsChecks or diabetes MedsChecks per month. The community pharmacy is remunerated a fee of AUD 66.53 per patient for a MedsCheck, or AUD 99.79 for a diabetes MedsCheck. 62

Home Medicines Reviews (HMR): (a medicine review provided by an accredited pharmacist in the patient's home, following referral by a medical practitioner). Following interview with the patient, the accredited pharmacist produces a report detailing recommendations to assist the referrer and patient in developing a medication management plan. Only accredited pharmacists who have undertaken additional training and assessment are authorized to provide medicine review services. To maintain accreditation status, pharmacists must complete 20 additional continuing professional development (CPD) credits annually (in addition to the 40 CPD credits required for general registration). 63

Changes announced in April 2020 are the most significant since the program's inception, providing a unique opportunity for accredited pharmacists to have a greater role in the health system. Pathways available for HMRs have been broadened to include referrals from medical practitioners other than GPs. Pharmacists may also initiate up to two remunerated follow-up services within nine months of the initial interview. Far Pharmacies and accredited pharmacists are subject to a cap of 30 HMRs per month. A fee of AUD 222.77 per patient may be claimed for the initial HMR service (interview and report), while an additional AUD 111.39 and AUD 55.70 may be claimed for the provision of first and second follow-up services, respectively.

Residential Medication Management Reviews (RMMR) and QUM: (to enhance the QUM in residential aged care facilities). An RMMR is a service provided to a permanent resident of a residential aged care facility by an accredited pharmacist. It involves a comprehensive assessment to identify and resolve medicine-related problems. The QUM service is a separate service provided by a registered or accredited pharmacist focusing on improving practices and procedures as they relate to quality and safe use of medicines in a residential care facility. ⁶⁵

The above services form the core of the remuneration associated with the delivery of services funded by the federal government. Most, if not all, of this funding is claimed by community pharmacies indicating that most are taking advantage of this remuneration. However, this still forms a relatively small percentage of the total revenue for a community pharmacy.



Table 1. Pharmacy programs and se	rvices
Other funded programs under the 6CPA	Medication management programs
	Pharmacy Trial Programs Pharmacy Diabetes Screening trial Indigenous Medication Review Service feasibility (IMeRSe) trial Getting Asthma Under Control (PTP-ARC) trial Integrating practice pharmacists into Aboriginal Community Controlled Health Services (the IPAC project) Reducing Medicine Induced Deterioration and Adverse Reactions (ReMInDAR) trial Early detection and management of cardiovascular disease risk factors (CVD) trial Chronic Pain MedsCheck trial Mental Health service (PharMIbridge) trial Other programs Helath programs Electronic Prescription Fee Rural support programs Rural Pharmacy Workforce Program Rural Pharmacy Workforce Program Rural Pharmacy Maintenance Allowance Aboriginal and Torres Strait Islander (ATSI) specific programs Quality Use of Medicines Maximized for ATSI People (QUMAX) S100 Pharmacy Support Allowance ATSI Workforce Program (Pharmacy Assistant Traineeship Scheme and Pharmacy Scholarships Scheme)
Services with other sources of remuneration (ie. through PHNs or the Workforce Incentive Program)	General practice pharmacists
Unremunerated services or a fee paid by patients	 Immunisation services Chronic disease management support Blood pressure monitoring Cholesterol monitoring Blood glucose monitoring Inhaler technique checks INR recording HbA1c monitoring Health checks to support early detection COPD screening Australian Type 2 Diabetes risk assessment (AUSDRISK™) Obstructive sleep apnoea screening Health promotion services Weight management Smoking cessation Emergency contraception Wound care services Compounding services Staged supply services Mental health support services Needle and syringe exchange services Opioid substitution therapy services Return of unwanred medicines Baby progress recording Breastfeeding advice and support
Future services	Minor ailment service Pharmacist prescribing



Additional programs

Community Pharmacy in Health Care Homes trial: (an initiative funded to support the incorporation of medication management programs within Health Care Homes). A Health Care Home is a general practice (or Aboriginal Community Controlled Health Service) that coordinates care for patients with chronic and complex conditions.³⁸ Pharmacies involved in the trial work in conjunction with the Health Care Home team by delivering patient-centred medication management services until the trial concludes on June 30th 2021. Community pharmacy's role in Health Care Homes is to conduct an initial medication reconciliation of a patient's medicines, and develop a Medication Management Plan. The plan includes (1) goals of medication therapy (i.e., proposed plan of action), (2) person responsible for the identified goal (eg. patient, pharmacist, or GP), (3) identification of medication adherence and management services (e.g., blood pressure monitoring, blood glucose monitoring, dose administration aids, or development of an asthma action plan), (4) reconciled medication list, and (5) proposed review date. Each patient is assigned to a complexity tier and pharmacies are remunerated accordingly (Table 2). 66,67 However, there appears to be no publicly available data on the uptake of the program.

Take Home Naloxone pilot trial: Under this trial, naloxone is available to people at risk of overdose, which includes illicit drug users and people who use prescription opioids, or their carers/ family at no-charge. No prescription is required. The Australian government has invested AUD 10 million in the pilot, running between December 1st 2019 and February 28th 2021. Payments are made for each individual supply of naloxone ranging from AUD 41.34 to AUD 48.42 (excluding GST) depending on the product supplied.⁶⁸

Pharmacy Trial Programs

As aforementioned, AUD 50 million was allocated to support PTP programs under the 6CPA. The PTP was introduced to trial new or expanded community pharmacy programs with the aim of improving clinical outcomes for patients and extending the role of community pharmacists. ^{69,70} As follows:

Pharmacy Diabetes Screening trial: The trial aimed to compare clinical and cost effectiveness of three different pharmacy-based diabetes screening interventions (including AUSDRISK™ assessment) for early detection, education and referral. ^{71,72}

Indigenous Medication Review Service feasibility (IMeRSe) trial: The trial aimed to optimize patient's medication

management via a culturally responsive service for Indigenous Australians, delivered by community pharmacists integrated with Aboriginal Community Controlled Health Services. 73

Getting Asthma Under Control (PTP-ARC) trial: The trial aimed to improve clinical outcomes for populations at risk of uncontrolled asthma. The intervention targeted three factors associated with uncontrolled asthma including adherence, suboptimal inhaler technique or uncontrolled allergic rhinitis.⁷⁴

Integrating practice pharmacists into Aboriginal Community Controlled Health Services (the IPAC project): The trial aimed to evaluate the impact of pharmacists in Aboriginal health settings providing medication management services to ATSI people. Ten full time equivalent pharmacists integrated into Aboriginal Community Controlled Health Service sites were conducting patient-related and practice-related activities. ⁷⁵

Reducing Medicine Induced Deterioration and Adverse Reactions (ReMInDAR) trial: The trial aimed to determine the effectiveness of a pharmacist service in reducing medicine-induced deterioration, frailty and adverse reactions in older people living in aged-care facilities.⁷⁶

Early detection and management of cardiovascular disease risk factors (CVD) trial: The trial aimed to evaluate health checks to detect, diagnose and enable early intervention of cardiovascular disease. The service was delivered by community pharmacists in collaboration with general practice and other providers to ensure individuals with elevated risk status were offered appropriate treatment to reduce their overall risk and improve quality of care. ⁷⁷

Chronic Pain MedsCheck trial: The trial aimed to assist patients taking medication for ongoing chronic pain. The service involved a consultation with a pharmacist to review pain medication use and develop an action plan, incorporating education, self-management and/or referral where required.⁷⁸

Bridging the Gap between Physical and Mental Illness in Community Pharmacy (PharMlbridge) trial: The primary focus of this AUD 5 million trial is on medication adherence and improving quality of life for mental health patients. The trial, planned to start later this year (2020), will involve 35 pharmacies across three states and territories.

Services with other sources of remuneration

General practice pharmacists': In recent years there has been an increase in pharmacists working in general practice in Australia, with evidence showing that pharmacists provide valuable support to the general practice team.⁸¹

Tier Category	Total per patient capped payment trial period	Inclusions
Tier 1 (Multiple chronic conditions)	AUD 418.75	Initial Medication Management Plan; three follow up reviews; health outcome data collection.
Tier 2 (Multimorbidity and moderate needs)	AUD 1,372.75	Initial Medication Management Plan; three follow up reviews; health outcome data collection; supporting services (flexible category).
Tier 3 (High risk chronic and complex needs)	AUD 1,642.75	Initial Medication Management Plan; three follow up reviews; health outcome data collection; supporting services (flexible category).



Several PHNs provide or have provided funding to embed non-dispensing pharmacists in general practice in defined regions. B2-84 In February 2020, the Workforce Incentive Program funding stream commenced providing general practices with financial support to employ nurses, Aboriginal and Torres Strait Islander practitioners, allied health professionals, and pharmacists in rural and remote areas. Pharmacists are included in this list for the first time, which means the opportunity exists for general practices to use this funding to support the employment of pharmacists. S1,85

General practice pharmacists perform a range of clinical and administrative duties related to their expertise in medication use and safety.⁸⁶ The services provided by pharmacists in general practice varies between practices, but generally includes:

- Patient-focused activities including resolving medicines use and safety problems, medicines education, medicines reconciliation or improving relationships with other providers including community pharmacists;
- Staff-focused activities including practice staff education sessions and answering medication information queries;
- Practice-based activities including Drug Utilisation Reviews (criteria-based evaluation of drug use to help ensure medicines are used appropriately at the individual patient level) and advice on prescribing according to evidence-based guidelines.⁸²

General practice pharmacists provide an opportunity to improve collaborative working relationships between GPs and community pharmacists and provide a link to existing community pharmacy services.⁸⁷

Unremunerated services or a service fee paid by patients

Vaccination services: (community pharmacists deliver a range of vaccinations, primarily influenza, depending on state and territory-based legislation). Community pharmacists have rapidly adopted broader roles in providing immunization services since 2014, in all states and territories since 2016, leading to increased vaccination rates. A pharmacist with general registration may administer vaccinations after completing an approved course of training, cardiopulmonary resuscitation, and first aid including anaphylaxis training, and are permitted under state or territory legislation.

In all jurisdictions across Australia, trained pharmacists can legally administer vaccinations, but the range of vaccinations and the allowable age of patients varies by jurisdiction. Each state and territory have differing vaccination legislation, regulations and requirements. For example, under New South Wales regulation and authorization, pharmacists can administer diphtheria-tetanus-pertussis (whooping cough) (dTpa) and measles-mumps-rubella (MMR) vaccines to people aged 16 years and over and privately funded influenza vaccines to people aged 10 years and over. 91 The Queensland Government in February 2020 lowered the age that approved pharmacists to administer the influenza vaccine to people aged 10 years and above, and expanded the range of vaccines (available to persons 16 years and above) to include: dTpa, dTpa in combination with inactivated poliovirus, poliomyelitis, MMR, cholera, hepatitis A, haemophilus influenzae type B, meningococcal ACWY and pneumococcal vaccine. 92

Currently, trained pharmacists in Victoria, Western Australia and the Australian Capital Territory (but not all states and territories) can administer government-funded vaccines to eligible persons under the National Immunisation Program (NIP). 92,93 The NIP provides vaccines to eligible people at no charge to the patient. The influenza vaccine is available free-of charge under the NIP for people in at risk groups (ie. all people aged 6 months to 5 years (this cohort is newly eligible in 2020), Aboriginal and Torres Strait Islander people aged 6 months and over, people aged 65 years and over, pregnant women, and people aged six months and over with medical conditions that increase risk of influenza complications).94 There have been calls for a nationally consistent approach and to extend the NIP to allow pharmacists in all states and territories to administer vaccinations under the program. 95,96 With wide public acceptance, and the fact that some consumers are willing to pay for the service even if eligible to receive a vaccination at no cost at their general practice, underpins the need to have these vaccinations easily accessible to ensure greater uptake through all community pharmacies.

Future services

Minor ailment service: Non-prescription medicines are divided into two scheduling categories in Australia: Schedule 2 medicines ("pharmacy medicines") provided under supervision of a pharmacist and Schedule 3 medicines ("pharmacist only medicines") handed out by the pharmacist directly. A trial undertaken in 2018 evaluated a community pharmacist delivered minor ailment service to triage, manage and appropriately refer patients to GPs through agreed pathways. The rationale of the trial was to support community pharmacy integration, standardize practice, and increase the quality and safe use of nonprescription medicines. ^{57,97,98}

Pharmacist prescribing: Pharmacist prescribing of Schedule 4 and 8 medicines ("prescription only medicines") is not currently permitted. Health professionals who have prescribing rights in Australia, other than medical doctors, include dentists, optometrists, midwives and nurse practitioners. 99 There has been much discussion about expanding prescribing rights to pharmacists. In a position statement released by the Pharmacy Board of Australia in 2019, the Pharmacy Board concluded that under Australian law there are no regulatory barriers to collaborative prescribing which is undertaken alongside medical professionals, or under structured arrangements where pharmacists have limited authorization to prescribe under a guideline or standing order. 100,101 Legislative, regulatory and practice changes are required to allow pharmacists to collaboratively prescribe within health teams under these models. Autonomous prescribing would require additional regulation and would need to be signed off by state and federal governments. 101

Urinary tract infection prescribing trial: Community pharmacists in Queensland will be involved in a urinary tract infection (UTI) prescribing trial, expected to launch mid-2020. The aim of the trial is for community



pharmacists to provide optimal care to women with uncomplicated UTIs. The rationale of the service is to improve access to care and reduce visits to emergency departments and other health providers. 102

Continued dispensing: More recently, the Australian Government approved a number of temporary dispensing changes in response to the widespread bushfires and the COVID-19 pandemic. ¹⁰³ Under strict conditions, pharmacists are able to supply PBS medicines to patients in emergency situations. ¹⁰⁴ A patient may receive one supply of their usual medicine without a prescription in a 12-month period at the usual PBS consumer co-payment. ¹⁰³ Continued dispensing arrangements are in place until June 30th 2020. ¹⁰³

FUTURE DIRECTIONS FOR COMMUNITY PHARMACY

Future directions for community pharmacy and pharmacists will be influenced both by economic and professional factors. 46 The national agreement is thought to be a blueprint for professional services and sets out the remunerated roles for community pharmacy. Thus, the next agreement (7CPA) and the Government's 10-year Primary Health Care plan will become the determinant of sustainability for the profession.⁴⁶ It is clear that the next five years will be critical to lay the foundation for change that is needed to support further integration of community pharmacy into primary care. Policy and funding support must be included for services that complement and expand integrated models and promote access to services led by or are conducted in collaboration with pharmacists. Generally, more complex services and clinical roles and their associated remuneration structures (such as, accredited pharmacists, pharmacists embedded in general practice and residential aged care facilities) promote integration into primary care and follow up. However, this has the potential to marginalize community pharmacies. Nevertheless, community pharmacists' roles have evolved and pharmacists are being recognized as the medication experts of the health team. Vaccination services have greatly expanded through community pharmacies and are considered to be highly successful, reflecting the reach and accessibility of the pharmacy network. The challenge for the future in Australia will be determining which professional services are envisaged by payers to be delivered via the community pharmacy structure, and which services will be delivered by other types of pharmacists, not linked nor employed by community pharmacies. Interestingly, there is endorsement from consumer associations such as Consumers Health Forum of Australia. Leanne Wells, Chief Executive of the Consumers Health Forum of Australia in 'The future of pharmacy is in the primary care sector' highlights the need for care to be better coordinated and delivered by a cohesive team comprising a GP, nurse and a pharmacist at a minimum with appropriate care from others as needed. 105 In addition, the 2018 Pharmacy Barometer survey of 361 that community Australian pharmacists showed pharmacists reported 'very good' working relationships with GPs, and the majority identified that their opinion and expertise is well respected.⁵⁸

CONFLICT OF INTEREST

None declared.

FUNDING

None.

References

- Australian Bureau of Statistics. Population clock. Available at: https://www.abs.gov.au/ausstats/abs%40.nsf/94713ad445ff1425ca25682000192af2/1647509ef7e25faaca2568a900154b6
 (accessed May 5, 2020).
- The Conversation. Australia's health system is enviable, but there's room for improvement. Available at: https://theconversation.com/australias-health-system-is-enviable-but-theres-room-for-improvement-81332 (accessed May 5, 2020).
- Department of Health. Primary Health Reform Steering Group Established. Available at: https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/primary-health-reform-steering-group-established (accessed May 5, 2020).
- Pharmaceutical Society of Australia. Medicines Safety: Take Care. Available at: https://www.psa.org.au/wp-content/uploads/2019/01/PSA-Medicine-Safety-Report.pdf (accessed May 5, 2020).
- 5. Armstrong B, Gillespie J, Leeder S, Rubin G, Russell L. Challenges in health and health care for Australia. Med J Aust. 2007;187(9):485-489. https://doi.org/10.5694/j.1326-5377.2007.tb01383.x
- 6. Australian Institute of Health and Welfare. Ageing and the health system: challenges, opportunities and adaptations. Available at: https://www.aihw.gov.au/getmedia/19dbc591-b1ef-4485-80ce-029ff66d6930/6 9-health-ageing.pdf.aspx (accessed May 5, 2020).
- 7. Department of Health. Australia's Long Term National Health Plan. Available at: https://www.health.gov.au/resources/publications/australias-long-term-national-health-plan (accessed May 5, 2020).
- 8. The Commonwealth Fund. International Health Care System Profiles. Available at: https://international.commonwealthfund.org/countries/australia/ (accessed May 5, 2020).
- Australian Institute of Health and Welfare. Health expenditure Australia 2017–18. Available at: https://www.aihw.gov.au/reports/health-welfare-expenditure/health-expenditure-australia-2017-18/contents/summary (accessed May 5, 2020).
- Department of Health. National Primary Health Care Strategic Framework. Available at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/nphc-strategic-framework (accessed May 5, 2020).



- 11. Department of Health. About the PBS. Available at: http://www.pbs.gov.au/info/about-the-pbs (accessed May 5, 2020).
- 12. Guild Forefront. Primary role for community pharmacy. Available at: https://www.guild.org.au/news-events/news/forefront-article/2015/08/18/primary-role-for-community-pharmacy (accessed May 5, 2020).
- Australian Industry and Skills Commitee. Community Pharmacy. Available at: https://nationalindustryinsights.aisc.net.au/industries/retail-and-wholesale/community-pharmacy (accessed May 5, 2020).
- 14. Pharmacy Board. March 2020 Newsletter. Available at: https://www.pharmacyboard.gov.au/News/Newsletters/March-2020.aspx (accessed May 5, 2020).
- 15. Pharmacy Guild of Australia. Vital Facts on Community Pharmacy (March-April 2020- infographic). Available at: https://www.guild.org.au/about-us/fact-sheets (accessed May 5, 2020).
- Pharmaceutical of Society of Australia. Pharmacists in 2023: For patients, for our profession, for Australia's health system. Available at: https://www.psa.org.au/wp-content/uploads/2019/02/Pharmacists-In-2023-digital.pdf (accessed May 5, 2020).
- Department of Health. Pharmacy Location Rules Applicant's Handbook. Available at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/health-pbs-general-pharmacy-acpa-acpaintro.htm
 (accessed May 5, 2020).
- Department of Health. National Medicines Policy. Available at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/National+Medicines+Policy-1 (accessed May 5, 2020).
- Department of Health. The National Strategy for Quality Use of Medicines. Available at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/3B48796D9E2DDD8ACA257BF00021DD88/\$File/National-Strategy-for-Quality-Use-of-Medicines.pdf (accessed May 5, 2020).
- McLachlan A, Aslani P. National Medicines Policy 2.0: a vision for the future. Aust Prescr 2020;43(1):24-26. https://doi.org/10.18773/austprescr.2020.007
- 21. Viva Communications. Medicines safety now a national health priority. Available at: https://vivacommunications.com.au/blog/medicines-safety-now-a-national-health-priority/ (accessed May 5, 2020).
- 22. Royal Commission into Aged Care Quality and Safety. Interim Report. Available at: https://agedcare.royalcommission.gov.au/publications/Pages/interim-report.aspx (accessed May 5, 2020).
- Pharmaceutical of Society of Australia. Medicine Safety: Take Care report. Available at: https://www.psa.org.au/wp-content/uploads/2019/01/PSA-Medicine-Safety-Report.pdf (accessed May 5, 2020).
- 24. Department of Health. Health ministers unite in response to Aged Care Royal Commission Interim Report. Available at: https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/health-ministers-unite-in-response-to-aged-care-royal-commission-interim-report (accessed May 5, 2020).
- World Health Organization. Integrated Care Models. Available at:
 http://www.euro.who.int/ data/assets/pdf file/0005/322475/Integrated-care-models-overview.pdf

 (accessed May 5, 2020).
- 26. Goodwin N. Understanding Integrated Care. Int J Integr Care. 2016;16(4):6. https://doi.org/10.5334/ijic.2530
- 27. Western Sydney Primary Health Network. The New Frontier of Healthcare. Available at: https://www.wslhd.health.nsw.gov.au/ArticleDocuments/1231/The%20New%20Frontier%20of%20Healthcare Western%2 0Sydney%20Integrated%20Care%20Demonstrator%202014-2017.pdf.aspx (accessed May 5, 2020).
- Australian Institute of Health and Welfare. Australia's Health 2018. Available at: https://www.aihw.gov.au/getmedia/7c42913d-295f-4bc9-9c24-4e44eff4a04a/aihw-aus-221.pdf.aspx?inline=true (accessed May 5, 2020).
- 29. Harris M, Furler J. How can primary care increase equity in health. N S W Public Health Bull. 2002;13(3):35-38. https://doi.org/10.1071/pb02017
- 30. Lewis J, Baeza J, Alexander D. Partnerships in primary care in Australia: Network structure, dynamics and sustainability. Soc Sci Med. 2008;67(2):280-291. https://doi.org/10.1016/j.socscimed.2008.03.046
- 31. Bennett C. A healthier future for all Australians: an overview of the final report of the National Health and Hospitals Reform Commission. Med J Aust 2009;191(7):383-387. https://doi.org/10.5694/j.1326-5377.2009.tb02845.x
- 32. Pharmaceutical Society of Australia. Delivering better patient care through better utilisation of pharmacists. Available at: https://www.parliament.vic.gov.au/images/stories/documents/council/SCLSI/Community_Pharmacy/Submissions/Sub_12_Pharmaceutical_Society_of_Australia_30062014.pdf (accessed May 5, 2020).
- 33. Braithwaite J, Zurynski Y, Ludlow K, Holt J, Augustsson H, Campbell M. Towards sustainable healthcare system performance in the 21st century in high-income countries: a protocol for a systematic review of the grey literature. BMJ Open. 2019;9(1):e025892. https://doi.org/10.1136/bmjopen-2018-025892
- 34. Department of Health. Primary Health Networks. Available at: www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Home (accessed May 5, 2020).
- NSW Government. Working with the primary health networks. Available at: https://www.health.nsw.gov.au/integratedcare/Pages/working-with-phns.aspx (accessed May 5, 2020).
- 36. Western Sydney Primary Health Network. Western Sydney General Practice Pharmacist Program. Available at: https://wentwest.com.au/wp-content/uploads/chronic disease prevention and management/Report General-Practice-Pharmacist-Program 201809.pdf (accessed May 5, 2020).
- Department of Health. PHN Needs Assessment Guide. Available at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/PHN-Needs Assessment Guide (accessed May 5, 2020).
- 38. Department of Health. Health Care Homes. Available at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/health-care-homes (accessed May 5, 2020).



- 39. Pharmacy Guild of Australia. Community Pharmacy 2025. Available at: https://www.guild.org.au/about-us/community-pharmacy-2025 (accessed May 5, 2020).
- 40. Pharmacy Guild of Australia. Community health hub. Available at: https://www.guild.org.au/about-us/community-pharmacy-2025/framework/community-health-hub (accessed May 5, 2020).
- 41. Retail Pharmacy. The Guild's 2025 vision. Available at: https://retailpharmacymagazine.com.au/the-guilds-2025-vision/ (accessed May 5, 2020).
- 42. Department of Health. Australian Government response to the review of pharmacy remuneration and regulation. Available at: http://www.health.gov.au/internet/main/publishing.nsf/content/7E5846EB2D7BA299CA257F5C007C0E21/\$File/Pharmacy
 - http://www.health.gov.au/internet/main/publishing.nsf/content/7E5846EB2D7BA299CA257F5C007C0E21/\$File/Pharmacy-Review-Aus-Gov-Response-3-May-2018.pdf (accessed May 5, 2020).
- Bankwest. Future of Business: Focus on Pharmacy 2019 release. Available at: https://www.bankwest.com.au/content/dam/bankwest/documents/business/insights/focus-on-pharmacy-report-2019.pdf (accessed May 5, 2020).
- Sixth Community Pharmacy Agreement. About 6CPA. Available at: http://6cpa.com.au/about-6cpa/ (accessed May 5, 2020).
- 45. Australian Pharmacist. Minister Hunt commits to PSA being a signatory to 7CPA. Available at: https://www.australianpharmacist.com.au/psa-sign-7cpa/ (accessed May 5, 2020).
- 46. Benrimoj SI, Frommer MS. Community pharmacy in Australia. Aust Health Rev. 2004;28(2):238-246. https://doi.org/10.1071/ah040238
- 47. Department of Health. Sixth Community Pharmacy Agreement. Available at: http://www.pbs.gov.au/info/general/sixth-community-pharmacy-agreement (accessed May 5, 2020).
- 48. Department of Health. Remuneration to Community Pharmacy for medicines dispensed under the PBS and RPBS. Available at: http://www.pbs.gov.au/info/general/sixth-cpa-pages/remuneration-to-community-pharmacy (accessed May 5, 2020).
- 49. Department of Health. Community Service Obligation for Pharmaceutical Wholesalers. Available at:
 https://www1.health.gov.au/internet/main/publishing.nsf/Content/community-service-obligation-funding-pool (accessed May 5, 2020).
- 50. Department of Health. Community Pharmacy Programs. Available at: http://www.pbs.gov.au/info/general/sixth-cpa-pages/community-pharmacy-programmes (accessed May 5, 2020).
- Parliament of Australia. New pharmacy agreement due this year. Available at:
 https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/FlagPost/2020/February/Pharmacy_Agreement (accessed May 5, 2020).
- 52. Parliament of Australia. Budget Review 2017–18 Index. Available at:
 https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview2017_18/PBS (accessed May 5, 2020).
- 53. Guild Care. Patient Services. Available at: http://www.guildlink.com.au/guildcare/products1/guildcare-programs/patient-services/ (accessed May 5, 2020).
- 54. Australian Journal of Pharmacy. Are professional services catching on? Available at: https://ajp.com.au/news/professional-pharmacy-services-catching/ (accessed May 5, 2020).
- 55. Pharmacy Guild of Australia. Placing a Value on Community Pharmacy Services. Available at: https://www.guild.org.au/news-events/blog/2017/placing-a-value-on-community-pharmacy-services (accessed May 5, 2020).
- 56. Yuan C, Ding Y, Zhou K, Huang Y, Xi X. Clinical outcomes of community pharmacy services: A systematic review and meta-analysis. Health Soc Care Community. 2019;27(5):e567-e587. https://doi.org/10.1111/hsc.12794
- Dineen-Griffin S, Benrimoj SI, Rogers K, Williams KA, Garcia-Cardenas V. Cluster randomised controlled trial evaluating the clinical and humanistic impact of a pharmacist-led minor ailment service. BMJ Qual Saf. 2020. [Epub ahead of print] https://doi.org/10.1136/bmigs-2019-010608
- 58. University of Technology Sydney. Pharmacy Barometer 2018. Available at: https://www.uts.edu.au/about/graduate-school-health/pharmacy/what-we-do/pharmacy-barometer (accessed May 5, 2020).
- Pharmacy Programs Administrator. Dose Administration Aids. Available at: https://www.ppaonline.com.au/programs/medication-adherence-programs/dose-administration-aids (accessed May 5, 2020).
- 60. Department of Health. Clinical Intervention Final Evaluation Report. Available at: http://www.pbs.gov.au/general/sixth-cpa-pages/cpp-files/6CPA-PPI-CI-Final-Evaluation-Report.PDF (accessed May 5, 2020).
- 61. Pharmacy Programs Administrator. Clinical Interventions. Available at: https://www.ppaonline.com.au/programs/medication-adherence-programs/clinical-interventions (accessed May 5, 2020).
- 62. Pharmacy Programs Administrator. MedsCheck and Diabetes MedsCheck. Available at: https://www.ppaonline.com.au/programs/medication-management-programs/medscheck-and-diabetes-medscheck (accessed May 5, 2020).
- 63. Australian Association of Consultant Pharmacy. Reaccreditation for MMRs. Available at: https://aacp.com.au/app/uploads/No-5-Reaccreditation-for-MMRs-May-2018.pdf (accessed May 5, 2020).
- 64. Pharmacy Programs Administrator. Home Medicines Review. Available at:
 https://www.ppaonline.com.au/programs/medication-management-programs/home-medicines-review (accessed May 5, 2020).
- 65. Sixth Community Pharmacy Agreement. Medication adherence and medication management programs. Available at: http://6cpa.com.au/6cpa-programs/medication-adherence-and-medication-management-programs/ (accessed May 5, 2020).



- 66. Sixth Community Pharmacy Agreement. Community Pharmacy in Health Care Homes trial program. Available at: http://6cpa.com.au/community-pharmacy-in-health-care-homes-trial-program/community-pharmacy-in-health-care-homes-trial-program-interim/ (accessed May 5, 2020).
- 67. Department of Health. Health Care Homes. Available at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/health-care-homes-cp/\$File/HCH-Handbook-Feb-2019.pdf (accessed May 5, 2020).
- 68. Pharmacy Programs Administrator. Naloxone Pilot. Available at: https://www.ppaonline.com.au/naloxone-pilot (accessed May 5, 2020).
- 69. Sixth Community Pharmacy Agreement. Pharmacy Trial Program. Available at: http://6cpa.com.au/pharmacy-trial-program/ (accessed May 5, 2020).
- 70. Department of Health. Pharmacy Trial Program. Available at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/pharmacy-trial-programme (accessed May 5, 2020).
- 71. Department of Health. Australian type 2 diabetes risk assessment tool (AUSDRISK). Available at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/chronic-diab-prev-aus (accessed May 5, 2020).
- Krass I, Carter R, Mitchell B, Mohebbi M, Shih STF, Trinder P, Versace VL, Wilson F, Namara KM. Pharmacy Diabetes Screening Trial: protocol for a pragmatic cluster-randomised controlled trial to compare three screening methods for undiagnosed type 2 diabetes in Australian community pharmacy. BMJ Open. 2017;7(12):e017725. https://doi.org/10.1136/bmjopen-2017-017725
- 73. Griffith University. The Indigenous Medication Review Service. Available at: https://www.griffith.edu.au/menzies-health-institute-queensland/our-research/imerse-project (accessed May 5, 2020).
- 74. Billot L, Serhal S, Armour C. Pharmacy Trial Program Asthma and Rhinitis Control (PTP-ARC) trial: Statistical Analysis Plan. Available at: https://doi.org/10.31219/osf.io/mjzrn (accessed May 5, 2020).
- 75. Couzos S, Smith D, Stephens M, Preston R, Hendrie D, Loller H, Tremlett M, Nugent A, Vaughan F, Crowther S, Boyle D, Buettner P, Biros E. Integrating pharmacists into Aboriginal Community Controlled Health Services (IPAC project): Protocol for an interventional, non-randomised study to improve chronic disease outcomes. Res Social Adm Pharm. 2019 [Epub ahead of print]. https://doi.org/10.1016/j.sapharm.2019.12.022
- 76. Lim R, Bereznicki L, Corlis M, Kalisch Ellett LM, Kang AC, Merlin T, Parfitt G, Pratt NL, Rowett D, Torode S, Whitehouse J, Andrade AQ, Bilton R, Cousins J, Kelly L, Schubert C, Williams M, Roughead EE. Reducing medicine-induced deterioration and adverse reactions (ReMInDAR) trial: study protocol for a randomised controlled trial in residential aged-care facilities assessing frailty as the primary outcome. BMJ Open. 2020;10(4):e032851. https://doi.org/10.1136/bmjopen-2019-032851
- 77. Department of Health. Pharmacy Trial Program (PTP) Update. Available at: http://www.pbs.gov.au/general/sixth-cpa-pages/cpsf-files/Pharmacy%20Trial%20Program.PDF (accessed May 5, 2020).
- 78. Sixth Community Pharmacy Agreement. Chronic Pain MedsCheck trial. Available at: http://6cpa.com.au/chronic-pain-medscheck-trial/ (accessed May 5, 2020).
- 79. Australian Journal of Pharmacy. Commitments to pharmacy. Available at: https://ajp.com.au/app2019/app2019-videos/commitments-to-pharmacy/ (accessed May 5, 2020).
- 80. Department of Health. Continued support for Australia's community pharmacies. Available at: https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/continued-support-for-australias-community-pharmacies (accessed May 5, 2020).
- 81. Medical Recruitment. New WIP Funding for GP Pharmacists: What you need to know. Available at: https://www.medicalrecruitment.com.au/blog/2020/02/new-wip-funding-for-gp-pharmacists-what-you-need-to-know (accessed May 5, 2020).
- 82. North Western Melbourne Primary Health Network. Pharmacists in general practice. Available at: https://nwmphn.org.au/commisioned-activity/pharmacists-general-practice/ (accessed May 5, 2020).
- 83. Australian Capital Territory Primary Health Network. Pharmacists in General Practice Pilot Report. Available at: https://www.chnact.org.au/sites/default/files/CHN_PiPG.pdf (accessed May 5, 2020).
- 84. Western Sydney Primary Health Network. WentWest Clinical Pharmacist Project: Evaluation. Available at: https://wentwest.com.au/wp-content/uploads/reports/primary_health_network_reports/2016-Wentwest-Clinical-Pharmacist-Project-Evaluation-Report.pdf (accessed May 5, 2020).
- 85. Department of Health. Workforce Incentive Program. Available at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/work-pr-wip-workforce-incentive-program (accessed May 5, 2020).
- 86. Pharmaceutical Society of Australia. General Practice Pharmacist. Available at: https://www.psa.org.au/career-and-support/career-pathways/general-practice-pharmacist/ (accessed May 5, 2020).
- 87. Deeks L, Naunton M, Han Tay G, Peterson G, Kyle G, Davey R, Dawda P, Goss J, Cooper GM, Porritt J, Kosari S. What can pharmacists do in general practice. Austr J Gen Pract. 2018;47(8):545-549. https://doi.org/10.31128/AJGP-03-18-4520
- 88. Pharmaceutical Society of Australia. Practice Guidelines for the provision of immunisation services within pharmacy. Available at: https://my.psa.org.au/s/article/immunisation-quidelines (accessed May 5, 2020).
- 89. Pharmaceutical Society of Australia. Nationally consistent approach to pharmacist administered vaccinations will improve access for all Australians. Available at: https://www.psa.org.au/pharmacist_administered_vaccinations/ (accessed May 5, 2020)
- Northern Territory Government. NT Immunisation Information for Pharmacists. Available at: https://www.health.gov.au/sites/default/files/documents/2020/01/foi-request-1352-nationally-consistent-approach-to-pharmacists-administered-vaccination-nt-immunisation-information-for-pharmacists.pdf (accessed May 5, 2020).



- 91. NSW Government. NSW pharmacist vaccination program. Available at: https://www.health.nsw.gov.au/immunisation/Pages/pharmacist-vaccination-expansion.aspx#bookmark1 (accessed May 5, 2020).
- 92. Pharmacy Guild of Australia. Vaccination legislation, regulations and training. Available at: https://www.guild.org.au/programs/vaccination-services (accessed May 5, 2020).
- 93. Government of Western Australia. Pharmacist influenza vaccination trial. Available at: https://www.health.wa.gov.au/Articles/N_R/Pharmacist-influenza-vaccination-trial (accessed May 5, 2020).
- 94. Pharmaceutical Society of Australia. NSW Pre-budget Submission. Available at: https://my.psa.org.au/s/article/PSA-NSW-Pre-budget-Submission (accessed May 5, 2020).
- 95. Pharmacy Daily. Give pharmacies access to NIP flu vax: Guild. Available at: https://pharmacydaily.com.au/news/pd-breaking-news-give-pharmacies-access-to-nip-flu-vax-guild/89190 (accessed May 5, 2020).
- 96. Pharmacy Guild of Australia. Nationally consistent approach to pharmacist administered vaccination. Available at: https://www.guild.org.au/news-events/news/2018/nationally-consistent-approach-to-pharmacist-administered-vaccination (accessed May 5, 2020).
- 97. Dineen-Griffin S, García-Cárdenas V, Williams K, Benrimoj SI. An Australian Minor Ailments Scheme. Evaluation of an integrated approach by Community Pharmacists and General Medical Practitioners. 2019. Report. ISBN-13: 978-0-646-80883-3.
- 98. University of Technology Sydney. Research reveals impact of Australian Minor Ailments Scheme. Available at: https://www.uts.edu.au/about/graduate-school-health/news/research-reveals-impact-australian-minor-ailments-scheme (accessed May 5, 2020).
- 99. Department of Health. Prescribing Medicines Information for PBS Prescribers. Available at: https://www.pbs.gov.au/info/healthpro/explanatory-notes/section1/Section1/2 Explanatory Notes#PBS-prescribers (accessed May 5, 2020).
- 100. Health Workforce Australia. Health Professionals Prescribing Pathway. Available at: https://www.aims.org.au/documents/item/400 (accessed May 5, 2020).
- 101. Pharmacy Board of Australia. Pharmacist prescribing Position statement. Available at:
 https://www.pharmacyboard.gov.au/News/Professional-Practice-Issues/Pharmacist-Prescribing-Position-Statement.aspx (accessed May 5, 2020).
- 102. Queensland University of Technology. Qld pharmacies trial fast access to urinary tract infection medication. Available at: https://www.qut.edu.au/news?id=159910 (accessed May 5, 2020).
- 103. Department of Health. Ensuring continued access to medicines during the COVID-19 pandemic. Available at: https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/ensuring-continued-access-to-medicines-during-the-covid-19-pandemic (accessed May 5, 2020).
- 104. Australian Government Services Australia. Continued dispensing. Available at: https://www.servicesaustralia.gov.au/organisations/health-professionals/services/medicare/pbs-pharmacists/initiatives/continued-dispensing (accessed May 5, 2020).
- 105. Consumers Health Forum of Australia. The future of pharmacy is in the primary care sector. Available at: https://chf.org.au/blog/future-pharmacy-primary-care-sector (accessed May 5, 2020).

