Sector Analysis Report 2022

Community pharmacy: essential to the resilience of health care systems

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The primary sources of information and data in this publication were responses from WPC member organisations to the WPC Sector Analysis Survey conducted in September and October 2022. Other references are cited.

WPC Membership

WPC member organisations have access to an extended version of the Sector Analysis Report.

The Pharmacy Guild of Australia
Danmarks Apotekerforening (Denmark)
Irish Pharmacy Union
Pharmacy Guild of New Zealand
Associação Nacional de Farmácias (Portugal)
Consejo General de Colegios Oficiales de Farmaceuticos España (Spain)
Pharmaceutical Services Negotiating Committee and National Pharmacy Association (UK)
National Community Pharmacists Association (USA)

The mission of the World Pharmacy Council is to build international recognition of community pharmacy, its role, policies and value, and to influence, promote and secure acceptance of community pharmacy as an important and integral part of health systems.

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*THIS IS A PUBLIC VERSION OF THE SECTOR ANALYSIS 2022 REPORT. THE MARKED SECTIONS ARE AVAILABLE ONLY IN THE FULL WPC MEMBERS’ VERSION.
About this report

NOTE: THIS IS THE PUBLIC VERSION OF THE SECTOR ANALYSIS 2022 REPORT. SOME SECTIONS ARE AVAILABLE ONLY IN THE FULL WPC MEMBERS’ VERSION.

This is the fifth annual World Pharmacy Council Sector Analysis Report. The report provides an overview of community pharmacy practice, regulation, trends, opportunities, research and statistics focused primarily on the eight WPC member countries as at November 2022 - Australia, Denmark, Ireland, New Zealand, Portugal, Spain, United Kingdom and United States of America. References to other OECD countries are also included.

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Methodological note – currency conversion

Where figures in this report are stated in US Dollars, they have been converted from the local currency using the World Bank’s published Purchasing Power Parities (PPPs) for 2021. PPPs are favoured over exchange rates as they are based on the number of units of a country’s currency required to buy the same amount of goods and services in the domestic market as a US Dollar would buy in the USA. PPPs are less volatile than exchange rates, and are intended to reflect the worth of a currency in each country (for example, the PPP for Ireland is different to the PPP for Germany, even though both use the Euro as their local currency – this is due to price level differences). PPPs can be viewed at http://data.worldbank.org/indicator/PA.NUS.PPP (accessed 12 October 2022).

<table>
<thead>
<tr>
<th>Country</th>
<th>PPP 2021 as used (relative to USA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1.44</td>
</tr>
<tr>
<td>Denmark</td>
<td>6.59</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.79</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1.49</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.57</td>
</tr>
<tr>
<td>Country</td>
<td>Score</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Spain</td>
<td>0.62</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.69</td>
</tr>
<tr>
<td>United States of America</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Before the COVID-19 pandemic, the Sector Analysis Report 2019 observed advancements in community pharmacy practice in many areas, for the benefit of patients, funders and local communities. The roles highlighted in that 2019 report included enhanced medication management services, administration of seasonal influenza vaccinations, and provision of triage, advice and treatment for common ailments. We did not know at the time that the capability and accessibility of community pharmacy in these and many other areas would become so much more vital over the ensuing three years of unprecedented pressure on health care around the world.

Community pharmacies have historically been quiet achievers in healthcare. In many countries they are the most visited health care destination, providing not only medicines but health and wellbeing advice and a growing range of professional services. As reported in the two most recent Sector Analysis Reports, the pandemic has shone a spotlight on community pharmacy. No longer seen as being on the periphery of health care (and in truth they never were), community pharmacies are now considered to be essential service providers and key to the resilience of health care systems, with roles being advanced out of necessity and as a result of long-overdue recognition of pharmacists broad set of competencies.

As the pandemic took hold, governments and regulatory bodies began to recognise the gaps that were opening up in the healthcare system. Systems lacked the resilience, redundancy and flexibility required to deal with such a massive shock. Many soon realised that community pharmacists were competent, able and willing to fill those gaps – if only they were authorised to do so.

Changes that were triggered in WPC member countries due to COVID-19 were detailed in last year’s report. These included the authority to extend or adapt prescriptions, the authority to dispense medicines previously only available through hospitals, and the extension of vaccination administration authority to include greater age ranges and more vaccine types (including COVID-19 vaccination). In most countries community pharmacies have also either distributed or performed COVID-19 antibody or antigen tests.

The implementation of the new authorities has been extremely successful. This is not surprising, as the activities were always within the competency of pharmacists. A recent challenge, and one that will continue into 2023, is to convince governments that these sensible changes – many of which were given only temporary status or have been wound back as the pandemic eased - should remain in place, permanently, for the benefit of patients and all parts of the healthcare system. Forward-thinking governments and health administrators should take a lead from those countries and jurisdictions that have permanently and successfully expanded a broad range of authorised and funded community pharmacist services for many years, such as Canadian provincial governments.
INTRODUCTION: Chief Economist’s Overview

The potential for community pharmacists to do more, through enabling full scope of practice and providing funding for new services, is now being realised, although the pace of change is variable from country to country (and, in many cases, varies within a country). This year’s report discusses many areas of progress - including, for example:

- In **England**, a new Pharmacy Contraception Service will begin in 2023, along with a further expansion of the New Medicines Service.
- In the **US** state of Iowa, community pharmacies can now test and treat for influenza, strep and COVID-19.
- In **New Zealand**, community pharmacies have administered the majority of COVID-19 vaccinations in 2022 – becoming the vaccination destination of choice.
- In **Spain**, an arrangement implemented during the pandemic involving collaborative dispensing of hospital medicines through community pharmacies has been maintained as an ongoing arrangement by four out of the six regions it was implemented in, and has been picked up by another.
- In Queensland (**Australia**) pharmacists can now prescribe and dispense antibiotics for uncomplicated urinary tract infections, while in North Queensland a pilot of full scope of practice is about to commence, and the governments of New South Wales and Victoria have recently announced similar arrangements.
- In **Scotland**, a country with a population of 5.4 million people, the NHS Pharmacy First program resulted in 2.6 million consultations related to common conditions in 2021, and a further 1.5 million in the six months to June 2022. In more than 85% of these cases, the pharmacist was able to dispense an item to treat the condition.
- In **Denmark**, a political agreement has been reached to investigate where pharmacies can contribute more, with a report expected early in 2023.
- In **Portugal**, the provision of in-pharmacy rapid antigen COVID-19 testing was shown to improve accessibility compared with alternative arrangements.

The evidence base on the economic and other benefits of community pharmacy services and interventions continues to build, year on year and month on month. This report summarises some of the most significant findings from recent research.

This year’s report also focuses on workforce issues. In most countries the pharmacy workforce is exiting the pandemic in a more fragile state than it entered. Demands have increased however the supply of pharmacists and technicians has been constrained, partly due to some exiting the workforce, partly due to lower rates of migration and partly due to community pharmacy being unable to compete with other employers’ wages. Some of this will be transitory. However there is also an urgent need in some countries for investment to create greater future capacity.

The workforce crunch is occurring in parallel with a global trend of higher inflation, pushing up business operating costs and elevating calls for greater and more equitable funding arrangements for community pharmacy services.

The problems relating to workforce pressures and inflation are not unique to pharmacy. They are affecting other parts of the healthcare system equally if not more significantly, and do not diminish the need for healthcare systems to become more agile, responsive and resilient. In fact these problems in many cases only amplify the case for urgently expanding the use of the most accessible and most frequently visited (but still most underused) healthcare destination – community pharmacy.
SECTION 1: Summary of community pharmacy in each WPC country

This section provides a high-level overview of community pharmacy in each country, including the general regulatory structure and funding framework. This section is intended to provide background and context for the remaining sections of the report.

1.1 Summary statistical profile

Figures below are for the most recent available year of data (ranging from 2019 to 2022). Data is sourced from WPC member organisations and official sources.

<table>
<thead>
<tr>
<th>Country</th>
<th>Population (million)</th>
<th>Number of Pharmacies</th>
<th>People per Pharmacy</th>
<th>Average Prescription Items Dispensed per Pharmacy per Year</th>
<th>Average Prescription Items Dispensed per Person per Year</th>
<th>% of Community Prescriptions that are Government-Subsidised</th>
<th>% of Pharmacies that are Pharmacist-Owned</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUS</td>
<td>25.7</td>
<td>5,875</td>
<td>4,374</td>
<td>61,552</td>
<td>14.1</td>
<td>60%</td>
<td>97%</td>
</tr>
<tr>
<td>DEN</td>
<td>5.9</td>
<td>599 (inc. branches)</td>
<td>9,850</td>
<td>122,000</td>
<td>12.4</td>
<td>-100%</td>
<td>100%</td>
</tr>
<tr>
<td>ESP</td>
<td>47.3</td>
<td>23,222</td>
<td>2,037</td>
<td>42,287</td>
<td>20.8</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>IRE</td>
<td>5.0</td>
<td>1,981</td>
<td>2,524</td>
<td>49,123</td>
<td>19.5</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>NZ</td>
<td>5.1</td>
<td>1,085</td>
<td>4,705</td>
<td>77,880</td>
<td>16.6</td>
<td>-80%</td>
<td>99% (majority owned by pharmacists)</td>
</tr>
<tr>
<td>POR</td>
<td>10.3</td>
<td>2,920</td>
<td>3,526</td>
<td>77,848</td>
<td>22.0</td>
<td>73%</td>
<td>84%</td>
</tr>
<tr>
<td>UK (England)</td>
<td>56.5</td>
<td>11,244</td>
<td>5,025</td>
<td>87,584</td>
<td>17.4</td>
<td>-100%</td>
<td>38%</td>
</tr>
<tr>
<td>USA</td>
<td>331.9</td>
<td>56,910</td>
<td>5,832</td>
<td>63,228 (for independent pharmacies)</td>
<td>N/A</td>
<td>54% (independents)</td>
<td>35%</td>
</tr>
</tbody>
</table>

1 Includes originals (initial items) and repeats
2 Includes originals (initial items) and repeats. While this is a broad comparator for drug usage, it is crude as there are variations between countries with regard to quantities dispensed and frequency of dispensing.
1.2 Community Pharmacy Operation and Regulation

Australia

With only minor exceptions due to grandfathering of previous legislation, community pharmacies in Australia must be 100% owned by registered pharmacists. Almost all community pharmacies are approved through the federal government to dispense medicines subsidised under the national Pharmaceutical Benefits Scheme (PBS). Items dispensed under this scheme account for almost 90% of dispensing, although around one-third of these are paid for entirely by the patient as the drug price is less than the applicable co-payment.

There are two levels of co-payment for PBS prescriptions. The lower co-payment applies for people aged over 65, people with a disability, the unemployed, and war veterans. A higher co-payment - which will be reduced for the first time from $42.50 to $30.00 in 2023 - applies for the rest of the population. Many items are priced below this co-payment and their price is unregulated for this portion of the population. Since January 2016, co-payments have been allowed to be discounted by up to $1 (any discounting beyond this results in no government subsidy being paid).

Since 1990 there has been a series of five-year Community Pharmacy Agreements negotiated between the Australian Government and The Pharmacy Guild of Australia. These agreements include the rates of remuneration for dispensing and wholesaling of PBS prescriptions. The most recent agreements, including the current Seventh Community Pharmacy Agreement (7CPA) have provided funding for a range of professional services and programs. Some of these programs are specific to rural and remote pharmacies and indigenous populations.

Services funded under the 7CPA include dose administration aids, staged supply, home medicines reviews (HMRs), residential (aged care) medication management reviews (RMMRs), and medicine use reviews (Medschecks). Pharmacies also provide a range of other services outside of the 7CPA, many of them free of charge. Pharmacists have also been authorised to administer a growing range of vaccinations, with the scope varying from state to state.

Denmark

The Danish Medicines Agency has the overall responsibility for the legislation that pharmacies must comply with, and their economic framework. Pharmacies in Denmark are operated by private individuals - the proprietary pharmacist (or pharmacy owner) - who has been granted a licence by the Danish...
Medicines Agency to run a pharmacy at a specific location. Pharmacies in Denmark have exclusive right to sell prescription-only medicines to consumers, and in addition there are many over-the-counter (OTC) drugs that only pharmacies are allowed to sell. Separately there is a non-pharmacy only OTC medicines category, which is also sold in retail outlets authorised by the Danish Medicines Agency.

Pharmacies must annually report their pharmacy financial accounts to the Danish Medicines Agency. Pharmacies in Denmark must pay a number of fees to the agency. In return, the pharmacies are compensated for the services they offer. Special rules apply to pharmacies’ profit margins on the sale of medicines in order to make sure the same prices are charged at the customer's pharmacy of choice. These rules apply a dispensing fee and mark-up on the purchase price. The purchase price from manufacturers is set every two weeks via a tender system. Reimbursement for patients is only for the cheapest of interchangeable medicines, and all patients are offered a generic if available.

New regulations, which took effect in July 2015, liberalised how close pharmacies can be located to one another. It is now possible for a main pharmacy to open up to seven new branches located within a radius of 75 km of the main pharmacy. This has led to a 55% increase in the number of pharmacies in Denmark. Prescription medicines can be delivered by carrier or mail order by all pharmacies.

The population to pharmacy ratio in Denmark remains relatively high, at just under 10,000 people per pharmacy. Pharmacies on average have about 13 employees (pharmacists and qualified pharmacy technicians). Pharmacy technicians in Denmark are referred to as pharmaconomists and have undertaken a three-year tertiary degree, compared with the five-year tertiary degree completed by pharmacists. Pharmaconomists can dispense and work as pharmacy managers but cannot own a pharmacy. The Ministry of Health appoints the new pharmacy owners via a special appointment committee that decides which candidate is the most competent to take over a pharmacy.

The Irish government operates several different schemes related to medicines. Under the Medical Card Scheme, there is a Prescription Levy of €1.50 per item on medicines, with a cap of €15.00 per month. The Drugs Payment Scheme (DPS) allows individuals and families who do not hold medical cards to limit the amount they have to spend on prescribed drugs. Under the DPS, no individual or family has to pay more than €80 in any calendar month for approved prescribed drugs, medicines and appliances. The Over 70s Scheme is means tested and anyone who is eligible does not have to pay for healthcare costs. The High-Tech Scheme was introduced to facilitate the supply of certain medicines, for example those used in conjunction with chemotherapy, which had previously been supplied primarily in the hospital setting. The Long Term Illness (LTI) Scheme has been set up to provide access to medicines for
persons who suffer from one or more chronic illnesses.

Pharmacy ownership is not regulated in Ireland.

Community pharmacists provide services including vaccination, blood pressure measurement, opioid treatment services, cholesterol testing and smoking cessation. During the COVID-19 pandemic, legislative changes allowed pharmacists to use their professional judgment to extend prescriptions and to dispense emergency supplies of controlled drugs. These legislative changes are still in operation, supporting patients and the wider primary healthcare team.

**New Zealand**

Each of New Zealand’s community pharmacies has entered into a contract for the provision of pharmacy services. Until June 2022 these contracts were with one of 20 District Health Boards however these have been disbanded and replaced by Te Whatu Ora – Health New Zealand. The standard Integrated Community Pharmacy Services Agreement (ICPSA) came into effect on 1 October 2018\(^3\). The ICPSA is an evergreen contract. It covers service and quality requirements as well as payment and claiming terms. The ICPSA includes the remuneration for dispensing and professional advisory services (including a Long Term Conditions service focused on medication adherence) as well as nationally consistent services, including the opioid substitution treatment service, aseptic service, sterile manufacturing, clozapine service, and influenza immunisation services.

The prescription medicine charge is usually $5 per new prescription item, although this is now being waived by certain pharmacy groups. There is no charge for fully subsidised medicine for children aged 13 and under, and no charge for repeat dispensing. Pharmacies may charge for extra services such as delivering medicines or compliance packaging. Individuals and their family who have more than 20 initial items dispensed in a year qualify for free medicines for the remainder of the year.

Pharmacies in New Zealand must be majority owned by a pharmacist or pharmacists. This pharmacist or these pharmacists must always have effective control of the company. Ownership is limited to five pharmacies for any individual pharmacist.

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\(^3\) [https://tas.health.nz/assets/Uploads/ICPSA-Contract.pdf](https://tas.health.nz/assets/Uploads/ICPSA-Contract.pdf)
Portugal

In Portugal, all community pharmacies are privately owned and, similarly to other countries, their core activity is to dispense prescription and non-prescription medicines. Community pharmacies hold the exclusivity of supply for prescription medicines, however since 2005 the sale of other medicines has been allowed outside of community pharmacies.

Since 2007, the range of pharmaceutical services provided has been widened with the introduction of immunisation services, disease management campaigns, and home care support.

Pharmacies provide programs for medication adherence, medicines reconciliation and unit dose dispensing, as well as education programmes on appropriate use of medical devices, and point of care testing. Pharmacies can also take part in campaigns and programmes on health promotion and education, disease prevention and healthy lifestyles.

It should be noted that for many of these services community pharmacies in Portugal are not reimbursed by the National Healthcare System for the provision of any of these services, however patients pay out-of-pocket for some of them.

Spain

All residents in Spain have access to the public Spanish healthcare system, although there is also the option of having private health insurance. There is a wide range of reimbursed medicines (in 2020 there were 21,703 medicines on the reimbursement list, inclusive of all forms and dosages\(^4\)), with a patient co-payment which is a percentage of the cost of prescription medicines. The percentage depends on income and whether the person is of working age or a state pensioner, and is also capped at 10% for chronic disease medicines. For pensioners there is a monthly cap on total co-payments. Schemes are handled by each of the 17 Spanish autonomous regions.

Spain has a relatively broad range of medicines available without a prescription, so pharmacies are a regular destination for minor ailments. Prescription and non-prescription medicine sales are restricted to sale only through pharmacies (medicines, including those such as paracetamol, cannot be sold in any other outlet).

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\(^4\) [https://jasmin.goeg.at/1687/1/PPRI_Pharma_Brief_ES_20201229.pdf](https://jasmin.goeg.at/1687/1/PPRI_Pharma_Brief_ES_20201229.pdf)
Many pharmacies offer certain health checks and treatments to patients, including cholesterol and blood pressure, as part of a set of services related to prevention and promotion of health.

Only individual pharmacists can own and run community pharmacies. Community pharmacies must be in possession of an authorisation granted by the appropriate authority in the autonomous region where the pharmacy is located, which is issued according to a quota system based on geographic location and population. Direct mailing, distance and online selling is prohibited for prescription-only medicines.

Prices are regulated. Discounts or any other offer on prescription only medicines or on medicines that can be advertised to the public are not allowed. Advertising to consumers is only allowed for medicines that (a) are not included in the public reimbursement system, (b) are not subject to medical prescription and (c) do not contain narcotic or psychotropic substances.

**United Kingdom**

Community pharmacy is one of the four primary care contractor groups under the National Health Service (NHS) in England. Whilst the core role remains dispensing medicines, community pharmacies also provide other national services such as a New Medicines Service, hypertension case-finding, influenza vaccination and the recently established Community Pharmacist Consultation Service. Others that may be commissioned at local level include screening and prevention services.

NHS England commissions community pharmacy owners to provide NHS pharmaceutical services through a Community Pharmacy Contractual Framework (CPCF). The CPCF consists of nationally commissioned Essential Services (services that all pharmacies must provide), Advanced Services (national services that can be provided by all pharmacies once accreditation requirements are met) and locally commissioned Enhanced Services (commissioned by local NHS England teams to meet certain identified needs).

There are two regulated and registered professions:

- Pharmacists, who train for 4 years at Masters Degree level plus a 1 year foundation year;
- Pharmacy Technicians, who train for 2 years for a Level 3 Diploma.

Pharmacists are able to prescribe certain medicines if they undertake suitable postgraduate training. By 2026, all graduating pharmacists will be independent prescribers.

Community pharmacy contractors to the NHS who own six or more pharmacies are known as ‘multiple contractors’ (also known as pharmacy chains). Those who own five or fewer pharmacies are known as ‘independents’. Most major supermarket chains in the UK operate pharmacy chains.
SECTION 1: Summary of community pharmacy in each WPC country

In Scotland, a three-year funding deal was signed in 2020 – a first for pharmacy in Scotland. As well as funding core services, this agreement introduced a new NHS Pharmacy First Scotland service. This is designed to encourage everyone to visit their community pharmacy as the first port of call for all minor illnesses and specific common clinical conditions.

A CPCF also exists in Wales, and has been extended and expanded in 2022 to include a broader range of services (see Section 5).

United States of America

Just over half of prescriptions dispensed in the USA are covered by one of two Government programs. Medicare Part D is for over 65s and younger people with disabilities, who do not have access to drug coverage through their employment-related benefits. Enrolment in Medicare Part D totals around 30 million people. The Medicaid program is funded through the states and provides coverage for low-income residents.

Most of the remaining prescriptions are covered by Prescription Drug Benefit insurance provided by the person’s employer or union.

Pharmaceutical Benefit Managers (or PBMs) are third-party intermediary administrators of prescription drug programs for health plans, including employee health plans and Medicare Part D plans. There are around 30 PBMs operating in the USA, but the two largest are Express Scripts and CVS, which cover more than half of all prescriptions filled in the USA annually. PBMs create many issues for pharmacies, consumers, and from a drug cost perspective. There is growing recognition of, and action on, some of these issues.

There is broad commonality among states regarding a pharmacist’s ability to deliver preventive services. The vast majority of states authorise pharmacists to perform preventive services, which include diabetes, cholesterol and blood pressure screening, smoking cessation, diet and obesity counselling and a range of immunisations. Physicians and certain non-physician health care professionals are reimbursed under Medicare Part B for providing necessary health care services. With only a few exceptions pharmacists’ services are not reimbursed in this fashion, which limits their uptake.

With the exception of North Dakota (majority pharmacist ownership) and Michigan (25% minimum pharmacist ownership), there are no pharmacy ownership restrictions in the USA. Overall, about 34% of pharmacies are independently pharmacist-owned and about 36% are pharmacy chains (the largest being CVS and Walgreens). The remainder are supermarkets or mass merchants, while mail order also holds a significant market share, driven by PBM-owned businesses such as Express Scripts.
The statistics below come directly from, or are based on, the OECD Health Statistics database\(^5\). All data are for the latest available year, which is generally 2020 or 2021. The USA has the worst affordability for prescribed medicines, while the UK - where most prescribed medicines are dispensed free of charge - has the lowest rate of prescribed medicines skipped due to cost.

SECTION 2: Community pharmacy is key to more resilient healthcare systems


Any future public health crisis will almost certainly have different characteristics to the COVID-19 experience. However any such crisis will inevitably create a surge impact on demand on primary and secondary care health resources and/or restrict the accessibility of these resources. At the same time, even between major crises, underlying demand on health systems will continue to increase due to ageing populations and the growing burden of chronic illness. These pressures will make these systems even more vulnerable when faced with inevitable future shocks. This may be worsened by workforce undersupply, as is being felt in many parts of the world currently.

Permanent preparatory measures for future shocks must include enabling community pharmacists to take a greater role as part of more agile and flexible health systems. This section briefly outlines some of the evidence and statistics related to the pandemic experience and the opportunities that exist for using community pharmacy more effectively as part of more productive and resilient health systems and integrated, streamlined, primary care teams.

Community pharmacy has now demonstrated its ability to take on roles traditionally delivered elsewhere in the systems, and these should be made permanent unless there is strong evidence supporting reversal to the pre-pandemic arrangements. For the future, health system leaders should go beyond established new roles for pharmacy, building on patient trust and value attached to community pharmacies. They should review evidence and experience from around the world – and, where necessary, gather new evidence - to see how health services can be improved through better use of community pharmacies.

Inefficient distribution of tasks between components of primary health care is a major contributor to reduced resilience

Before the pandemic, in a May 2019 OECD policy brief entitled “Realising the Full Potential of Primary Health Care”, the problem of the current maldistribution of activities among members of primary health care teams was well highlighted. The OECD’s brief also referred to examples of increasing community pharmacists’ role in prevention or management of chronic conditions in order to improve the efficiency of health care system investment. It stated:

“The current distribution of skills and tasks among primary health care teams is inefficient. According to the OECD PIAAC [Programme for the International Assessment of Adult Competencies] survey of adult competencies, as many as 76% of doctors and 79% of nurses reported being over-skilled for some of the tasks that they have to do in their day-to-day work, across OECD countries. Given the length of training of doctors and nurses, this represents a waste in human capital. There
SECTION 2:
Community pharmacy is key to more resilient healthcare systems

...are some good examples of reforms to provide nurses with advanced roles and to increase the role of community pharmacists in prevention or management of chronic diseases...These efforts enable better use of health professionals’ human capital.⁶

Section 2.1: Examples of community pharmacy’s contribution to health system resilience

The COVID-19 pandemic has exposed the fragility of the existing primary care model in most developed countries. It has also highlighted how community pharmacy can be a cornerstone of the solution to that problem, providing strength and resilience to health care systems.

Some of the major policy and practice changes that were triggered by the pandemic in WPC member countries (and others) have included:

1. the implementation and/or extension of vaccination administration authority to include greater age ranges and more vaccine types (including, in many countries, COVID-19 vaccination).
2. involvement in point-of-care COVID-19 antigen or antibody testing, and/or the provision of take-home test kits.

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Community pharmacy is key to more resilient healthcare systems

3. the authority to extend or adapt prescriptions to ensure continuity of treatment when access to doctors was limited.
4. the authority to dispense medicines previously only available through hospitals.
5. enabling of, and specific funding for, medicine home delivery services (especially for vulnerable or isolated people); and
6. social support services through pharmacies, such as protocols to help victims of domestic violence observed during lockdowns.

Example 1: Vaccination services

In addition to reducing strain on other parts of the health system infrastructure, community pharmacy-based vaccination services have consistently been shown to increase overall vaccination rates in the target population.

All 36 studies evaluated in a 2016 systematic review and meta-analysis found an increase in vaccine coverage when pharmacists were involved in the immunisation process. This is largely due to the convenience and accessibility of pharmacies and the high level of community trust in pharmacists.

Evidence of the safety, acceptance, capability and effectiveness of community pharmacy-based vaccination services is now abundantly clear, and all governments should now enable and encourage community pharmacies as the public’s principal destination for all vaccination programs for adults and children.

According to official figures from the USA’s Centers for Disease Control & Prevention (CDC) as of October 18th 2022, more than 276.4 million doses of COVID-19 vaccines have been administered in the USA through pharmacies under the federal program, across more than 41,000 pharmacy locations.

Also, for the 2020-21 season, more adults received their influenza vaccinations at a pharmacy (39%) than any other location type including a doctor’s office or health maintenance organisation (HMO) (34%).

Meanwhile, in New Zealand, community pharmacies have become the leading vaccination provider of choice. As at the end of September 2022, although the community pharmacy share of total COVID-19 vaccinations sits at 29.4%, the more recent monthly data shows that pharmacy’s monthly market share has grown to over 55% of all COVID-19 vaccinations during 2022 (see chart below). Community pharmacy has been able to develop its capacity to this point despite being the last vaccination destination to be brought on by funders in New Zealand.

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7 Isenor, J E et al. “Impact of pharmacists as immunizers on vaccination rates: A systematic review and meta-analysis.” Vaccine vol. 34,47 (2016): 5708-5723. doi:10.1016/j.vaccine.2016.08.085,
8 CDC, accessed June 2022: https://www.cdc.gov/vaccines/covid-19/retail-pharmacy-program/index.html
10 Data and chart supplied by the Pharmacy Guild of New Zealand based on official data.
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Example 2: Point of care testing

The pandemic has demonstrated that community pharmacies are an ideal location for point-of-care testing and for distribution of at-home test kits. Pharmacies were designated as a primary source of free tests under government programs established in many countries, including the USA, England and Australia. Research in Portugal demonstrated how community pharmacy’s involvement there achieved greatly improved accessibility and equality of access to testing.

An evaluation by the Centre for Health Evaluation & Research in Portugal shows how the provision of in-pharmacy rapid antigen testing in that country improved accessibility compared with alternative arrangements. As of 31 January 2022, there were 1,369 community pharmacies and 635 laboratories and other registered sites for performing tests for the diagnosis of SARS-CoV-2 in mainland Portugal covered by the national scheme. The CEFAR geo-spatial analysis showed that in a scenario without the participation of pharmacies, the average distance of each person to the closest testing place would have been 3.7 km, compared to 1.8 km with the inclusion of the participating pharmacies. Importantly, along with improved accessibility came improved equality of access. The Gini index for the distribution of access by income levels reduced from 0.42 to 0.26 with the participation of pharmacies (a reduction of about 39% in inequality).

11 https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/14/fact-sheet-the-biden-administration-to-begin-distributing-at-home-rapid-covid-19-tests-to-americans-for-free/
14 CEFAR Infosausde (2022), “Performance Of Rapid Antigen Test (Trag) For Professional Use For The Diagnosis Of Sars-Cov-2 In Community Pharmacies” Provided to WPC by ANF; copy available on request.
Community pharmacy has demonstrated its ability to implement quickly

During the height of the pandemic, the UK Government had purchased stocks of lateral flow test (LFD) devices and needed a way to distribute them free-of-charge to the public, beyond using a mail order solution, which had a fixed capacity due to the workforce challenges the pandemic brought to the postal system. A national distribution service (Pharmacy Collect) was set up in a matter of days and the vast majority of pharmacies in England signed up to provide the system within two weeks. In 2021/22, pharmacies undertook 25.5 million supplies of test kits to the public. Further information can be found at https://psnc.org.uk/national-pharmacy-services/advanced-services/c-19-lateral-flow-device-distribution-service/.

Beyond COVID-19 testing, there is increasing evidence of community pharmacies as an important destination for point-of-care testing for other diseases and for the effective distribution of take-home test kits. For example, community pharmacies in some countries - including WPC members Australia15, USA and Portugal16 - are being used to distribute HIV testing kits. The USA’s CDC has stated17:

_The accessibility of pharmacies for HIV testing presents a unique opportunity for pharmacists to contribute to the identification of undiagnosed HIV. It is estimated that 70% of rural consumers live within 15 miles of a pharmacy, and 90% of urban consumers live within 2 miles of a pharmacy. A Centers for Disease Control and Prevention (CDC)-funded feasibility study offering rapid, point-of-care testing in community pharmacies and retail clinics stated: “Pharmacies and retail clinics represent a vast, largely untapped potential for the delivery of HIV testing in settings that are more accessible and, for some people, less stigmatizing than traditional testing.”_

**Example 3: Prescription extension & independent pharmacist prescribing**

During the pandemic, many countries provided new or additional authorisation for community pharmacists to renew or extend existing prescriptions related to stable chronic conditions.

In Australia, as a result of the 2020 bushfire crisis and the COVID-19 pandemic, the pre-existing Continued Dispensing arrangements (which were only applicable for certain lipid-lowering drugs and oral contraceptives) were expanded to include most medicines subsidised for chronic conditions under the country’s Pharmaceutical Benefits Scheme. Continued Dispensing is allowed where there is an immediate need for the medicine but where it is not practicable to obtain a valid PBS prescription. As a result, in the 12 months to June 2021, community pharmacists dispensed more than 498,000 items to

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17 https://www.cdc.gov/hiv/effective-interventions/diagnose/hiv-testing-in-retail-pharmacies
patients who could not otherwise obtain a new prescription\textsuperscript{18}, compared to just 14,000 in the year to June 2019. This averted significant disruption in therapy and demonstrated the ability for pharmacists to take a closer role in managing and continuing treatments for chronic conditions on an ongoing basis. This opens up much needed capacity in general practice. Unfortunately, despite the clear success of the expansion, the Australian government decided to wind the eligible list of medicines back to a more limited set from 1 July 2022\textsuperscript{19}.

Even before the pandemic, some countries had advanced much further than this Australian example and in doing so had established more adaptability and resilience in the health system prior to the COVID-19 pandemic. A much more complete pharmacist scope of practice is in place in most provinces of Canada, as is discussed further in Section 5.2.\textsuperscript{20} While a nationally (and internationally) consistent approach is preferred, the fact that major jurisdictions such as Alberta have (for some time) successfully implemented full, or near full, scope of practice provides a model for others to follow.

Many studies support the safety and effectiveness of allowing pharmacists to initiate treatment or to adapt existing prescriptions (such as through a change in dosage or therapeutic substitution). For example, findings support the effectiveness of direct pharmacy access to contraception and in encouraging pharmacist contraception prescribing policies and widespread implementation.\textsuperscript{21} These findings are being acted upon in some countries and jurisdictions, such as in England where a new Pharmacy Contraception Services is being introduced (this is covered further in Section 5).

Pharmacist prescribing of COVID-19 therapeutics was also vital to the treatment of patients in the USA, especially those in lower socio-economic circumstances.

The community pharmacy response to COVID-19 in the USA has included expanded roles in prescribing and providing COVID-19 therapeutics such as Paxlovid\textsuperscript{®} and monoclonal antibody subcutaneous infusions\textsuperscript{22}. Through collaboration with healthcare partners, pharmacy networks, and the federal PREP Act, pharmacists have helped provide COVID therapeutics to the most socially vulnerable patients during the Public Health Emergency.

\textsuperscript{19} https://www.pbs.gov.au/info/general/continued-dispensing
\textsuperscript{20} https://www.pharmacists.ca/advocacy/scope-of-practice/
\textsuperscript{22} https://ncpa.org/covid-19-therapeutics
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Example 4: Transfer of the dispensing of hospital-only medicines to community pharmacies

There is inconsistency between countries in terms of what types of medicines are restricted to being dispensed only through hospitals and what is available through the much more easily accessed community pharmacy channel. With hospital resourcing stretched and repurposed, the pandemic highlighted the inefficiencies of some of these arrangements from the point of view of both the health care system and patients. Evidence during the pandemic, following changes to some of these arrangements, showed benefits not only in patient satisfaction but also in adherence to medication, as described below in the Spanish and Portuguese examples.

During the pandemic, collaborative dispensing of outpatient hospital diagnostic (DHDH) medicines was implemented in six Spanish regions to maintain continuity of treatment, quality of pharmaceutical care and reduce the risk of transmission of COVID-19 infection to vulnerable patients. As of October 2022 the service has been maintained in four out of the six regions where it was introduced during the pandemic. One new region incorporated the service and another one is working to implement it.

To date, patients who have chosen this option have received nearly 200,000 medicines, all of them with the assurance that this system guarantees the presence of a pharmacist throughout the process. This service is enabling these patients - most of whom are chronically ill and immunocompromised - to obtain hospital medicines from their nearest pharmacy, thanks to the work and coordination of pharmacists working in 69 hospital pharmacy services, 6,059 community pharmacies and 19 pharmaceutical distribution warehouses.

In October 2021, Spain’s General Pharmaceutical Council presented a report prepared with the consultancy firm HIRIS on the impact in the first 6 regions where collaborative dispensing was introduced. This report revealed that:

- a high rate of patient satisfaction, and an experience that brings humanisation to their care.
- patients who are prescribed DHDH medicines also use other dispensing treatments in community pharmacy therefore, it is ideal to carry out pharmacotherapeutic monitoring in collaboration between hospital pharmacists and community pharmacists.
- 100% of respondents would prefer to continue with this new circuit for DHDH medicines and not return to the previous system of collection at the hospital.
- the most valued arguments were convenience and speed (48%), not having to go to the hospital (40%), avoiding

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| annoying journeys (38%), proximity to the pharmacy (24%), savings in transport (22%) and extended pharmacy opening hours (20%). |

In Portugal, the dispensing of most outpatient specialty medicines is performed exclusively through hospital pharmacies and totally financed by the National Health Service. During the COVID-19 first wave, the government allowed the transfer of the dispensing of hospital-only medicines to community pharmacies. A study published in 2022\(^24\) aimed to measure the value generated by the intervention of community pharmacy in the dispensing of hospital-only medicines. It found a statistically significant (P < .0001) increase in mean adherence score to therapy, annual savings of €262 per person (through reduced travel and absenteeism) and a significant increase in satisfaction levels in all evaluated domains - pharmacist's availability, opening hours, waiting time, privacy conditions, and overall experience.

For the benefit of patients and to reduce the burden on hospital resources, governments should reduce the number of medicines that are restricted to supply and/or administration through hospitals only.

**Section 2.2: Where can community pharmacy add even more value in terms of system resilience?**

In addition to expanding community pharmacies’ roles in the areas discussed above, there is also great potential in many other areas.

**Area 1: Management of Long-Term Conditions**

Findings from systematic reviews and meta-analyses show that community pharmacist-led management of hypertension (as one example) significantly reduces systolic blood pressure compared with usual GP care\(^25\). Further clinical trial evidence has also demonstrated that the benefits of pharmacist intervention, including education, consultation and/or prescribing, can help to reduce blood pressure. A Canadian trial found an even larger 18.3 mmHg reduction in systolic blood pressure associated with pharmacist care and prescribing\(^26\). For a systolic blood pressure reduction of 18.3 mmHg,

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\(^{25}\) By between -6.1 mmHg (95% confidence interval [CI] -8.4 to -3.8) and -7.2 mmHg (95% CI -5.8 to -8.7) - [https://pharmaceutical-journal.com/article/research/effective-detection-and-management-of-hypertension-through-community-pharmacy-in-england](https://pharmaceutical-journal.com/article/research/effective-detection-and-management-of-hypertension-through-community-pharmacy-in-england)

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the estimated impact is 0.21 fewer cardiovascular events per person and, discounted at 5% per year, 0.3 additional life-years, 0.4 additional quality-adjusted life-years and C$6,364 cost savings over a lifetime. Results of an American trial published in April 2021 also showed the cost-effectiveness of pharmacist-led hypertension management.27

Hypertension management is only one example of the potential for community pharmacists to take a much greater role in management of long-term chronic conditions, freeing up other health system resources.

RESEARCH SPOTLIGHT: Data supports community pharmacy services for diabetes patients in Ireland

A study published in August 2022 examined the views and experiences of people with type 2 diabetes being cared for by their community pharmacist. In the surveyed population, people were highly satisfied with the pharmacy care provided to them, and the researchers concluded that the data supports the implementation of enhanced community pharmacy services for these patients in Ireland.28

Area 2: Addressing medication non-adherence

The high prevalence of medication non-adherence is associated with increased morbidity and mortality, disease progression and increased utilisation of health care resources and accompanying expenditure. OECD Health Working Paper No. 105, published in 2018,

https://doi.org/10.1016/j.jval.2020.10.008,
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concluded that investing in medication adherence not only improves health outcomes but also increases health system efficiency\(^{29}\). It also reported that “the problem of poor adherence has rarely been explicitly included in national health policy agendas”. Community pharmacists, as the medicines experts, are in the best position to address this problem.

The OECD’s Working Paper described several pharmacy-delivered programs aimed at addressing non-adherence, including England’s New Medicine Service (NMS), which was highlighted as being cost-effective\(^ {30}\). The service provides support for people with long-term conditions newly prescribed a medicine to help improve medicines adherence. It is focused on specific patient groups and conditions.

The NMS commenced in 2011. As a result of the ongoing success of this service, the NMS was expanded in September 2021 to include 13 additional conditions, and from April 2023 (subject to positive evaluation of an ongoing pilot) the NMS will expand to include antidepressants to enable patients who are newly prescribed an antidepressant to receive extra support from their community pharmacist.

Area 3: Triage and treatments for common conditions

Community pharmacies are being recognised as a first port of call for advice and treatment for minor health issues and common clinical conditions. Some countries have established formal schemes encouraging patients to visit pharmacies first.

In Scotland, a country with a population of 5.4 million people, the NHS Pharmacy First program resulted in 2.6 million consultations in 2021, and a further 1.5 million in the six months to June 2022. In more than 85% of these cases, the pharmacist was able to dispense an item to treat the condition. Just 4% of the consultations resulted in a referral to another health care practitioner, which shows that the program has successfully reduced unnecessary visits to doctors – allowing them to spend time in managing cases of more urgency and requiring greater clinical knowledge.


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Area 4: Public Health & Prevention

In many countries community pharmacists are the most accessible and most frequented health professional\(^\text{31}\). As shown in the previous examples in relation to vaccination and testing, the pandemic has demonstrated the vital importance of population-wide preventive health and community pharmacy has established its pivotal place in application of effective measures to prevent and contain the spread of infection. Community pharmacies have a long history of adapting to address new health challenges. These include participation in programs for influenza and other vaccinations, services for drug misusers, smoking cessation, sun protection and prevention of skin cancer, and many others. These are important roles as the principal local provider of public health services, but it is frequently not fully recognised, valued or adequately remunerated.

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\textbf{Australia’s Take Home Naloxone (THN) Program} makes the medicine naloxone free and available without a prescription to people who are at risk of, or who may witness, an opioid overdose or adverse reaction. The 2022-23 Federal Budget included $19.6 million (over four years), for a national, ongoing THN Program. The program was initially piloted in New South Wales, South Australia and Western Australia between 1 December 2019 and 30 June 2022 before being expanded nationally from 1 July 2022.

Additionally, in the Australian state of Victoria, administration by pharmacists of long-acting injectable buprenorphine (following completion of relevant training) is allowed as part of an Opioid Treatment Program\(^\text{32}\). This has also been trialled in the state of New South Wales and is being considered by other states.

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THIS SECTION IS AVAILABLE ONLY IN THE FULL WPC MEMBER VERSION.
SECTION 4: Pharmacy Workforce

THIS SECTION IS AVAILABLE ONLY IN THE FULL WPC MEMBER VERSION.
SECTION 5: Pharmacy Services & Scope

THIS SECTION IS AVAILABLE ONLY IN THE FULL WPC MEMBER VERSION.
SECTION 6: Economic & Business Conditions

THIS SECTION IS AVAILABLE ONLY IN THE FULL WPC MEMBER VERSION.
SECTION 7: Digital Health Systems & Initiatives

THIS SECTION IS AVAILABLE ONLY IN THE FULL WPC MEMBER VERSION.
Appendix 1: Health System Statistics

THIS APPENDIX IS AVAILABLE ONLY IN THE FULL WPC MEMBER VERSION.