Country case studies on pharmacy-based vaccination

Key learnings from seven countries

2026

FIP Development Goals

International Pharmaceutical Federation

Colophon

International Pharmaceutical Federation (FIP)
Andries Bickerweg 5
2517 JP The Hague
The Netherlands
www.fip.org

Authors:
Nisa Masyitah, FIP Lead for Workforce Intelligence
Grace Adebayo, FIP Project and Data Support Coordinator
Tatiana Soares Ribeiro, FIP Global Pharmaceutical Observatory (GPO) Intern

Editors:
Dr Catherine Duggan, FIP Chief Executive Officer

Recommended citation:
International Pharmaceutical Federation (FIP). Country case study on pharmacy-based vaccination: Key learnings from seven countries. The Hague: International Pharmaceutical Federation; 2026.

Cover image:
your_photo, Dobrila Vignjevic, SDI Productions | iStockphoto

Contents

Acknowledgements **3**
1 Introduction **4**
1.1 Background 4
1.2 Purpose 4
2 Case studies **5**
2.1 Australia 6
2.1.1 Policy landscape 7
2.1.2 Workforce capacity 11
2.1.3 Training requirements 11
2.1.4 Financing and reimbursement 12
2.1.5 Vaccination records 13
2.1.6 Quality monitoring system 14
2.1.7 Implementation and scale-up strategies 14
2.1.8. Key enablers and barriers 17
2.2 Canada 19
2.2.1 Policy landscape 20
2.2.2 Workforce capacity 20
2.2.3 Training requirements 20
2.2.4 Financing and reimbursement 21
2.2.5 Vaccination records 21
2.2.6 Quality monitoring system 21
2.2.7 Implementation and scale up strategies 22
2.2.8 Key enablers and barriers 22
2.3 France 24
2.3.1 Policy landscape 25
2.3.2 Workforce capacity 25
2.3.3 Training requirements 25
2.3.4 Vaccination records 26
2.3.5 Quality monitoring system 26
2.3.6 Implementation and scale-up strategies 27
2.3.7 Key enablers and barriers 27
2.4 Ireland 28
2.4.1 Policy landscape 29
2.4.2 Workforce capacity 30
2.4.3 Training requirements 30
2.4.4 Financing and reimbursement 30
2.4.5 Vaccination records 31
2.4.6 Quality monitoring system 31
2.4.7 Implementation and scale-up strategies 31
2.4.8 Key enablers and barriers 32
2.5 Italy 33
2.5.1 Policy landscape 34
2.5.2 Workforce capacity 35
2.5.3 Training requirements 35
2.5.4 Financing and reimbursement 36
2.5.5 Vaccination records 36
2.5.6 Quality monitoring system 37
2.5.7 Implementation and scale-up strategies 37
2.5.8 Key enablers and barriers 38
2.6 Portugal 40

2.6.1 Policy landscape 41
2.6.2 Workforce capacity 41
2.6.3 Training requirements 42
2.6.4 Financing and reimbursement 43
2.6.5 Vaccination records 44
2.6.6 Quality monitoring system 44
2.6.7 Implementation and scale-up strategies 44
2.6.8 Key enablers and barriers 45
2.7 United Kingdom 46
2.7.1 Policy landscape 47
2.7.2 Workforce capacity 49
2.7.3 Training requirements 50
2.7.4 Financing and reimbursement 50
2.7.5 Vaccination records 51
2.7.6 Quality monitoring system 51
2.7.7 Implementation and scale-up strategies 52
2.7.8 Key enablers and barriers 53
3 Conclusion 54
Special acknowledgements 55
References 56

Acknowledgements

FIP thanks its member organisations and case study authors for their contributions to this project. The list of member organisation that contributed to the case studies can be found in the special acknowledgements section.

This resource is supported through unrestricted funding from Merck. The content of this report has been produced independently by FIP.

1 Introduction

1.1 Background

Vaccination remains one of the most effective public health interventions, significantly reducing mortality and morbidity while safeguarding health, functional ability, and well-being across all ages. The success of vaccination programmes depends not only on the availability of vaccines but also on the widespread administration and accessibility to all population groups. Yet, despite its proven effectiveness, adult vaccination coverage varies considerably across vaccines and countries, often remaining below recommended public health targets.[1] The persistent gaps, compounded by ageing populations, workforce shortages, and the ongoing threat of infectious disease outbreaks, underscore the needs to expand and diversify vaccination delivery approaches.

Pharmacists have emerged as a critical part of the solution. As some of the most accessible healthcare professionals in the community, pharmacists are well positioned to close vaccination gaps, offering extended hours, convenient locations, and consistent direct patient contact. Evidence from systematic reviews confirms that vaccination coverage increases when pharmacists are involved in immunisation programmes, whether as vaccine educators, facilitators, or administrators.[2] As pharmacy-based vaccination continues to expand globally, pharmacists are becoming key contributors to national immunisation strategies.[3,4] By leveraging the widespread availability and accessibility of community pharmacies, pharmacy-based vaccination has the potential to improve immunisation rates, ease pressure on overburdened healthcare settings, and contribute meaningfully to public health targets.[3,5]

The scope of pharmacist practice has steadily broadened to reflect this role. In 2023, FIP published its statement of policy on the role of pharmacy in life-course vaccination, affirming the profession's commitment to expanding vaccination schedules and strategies beyond early childhood, as well as integrating pharmacists into immunisation pathways at every stage of life. FIP's vaccination efforts align directly with the WHO Immunisation Agenda 2030, particularly two of its strategic objectives: ensuring universal protection through full immunisation regardless of location, age, socioeconomic status, or gender (objective 3); and, enabling all individuals to benefit from recommended vaccines throughout life, integrated with other essential health services (objective 4).[6] In pursuit of these objectives, FIP has been systematically gathering data from member organisations to track global trends in pharmacy-based vaccination through multinational needs assessments and ongoing surveillance.

The most recent comprehensive data, collected in 2024 by FIP, showed that PBV was available in 56 countries, of which 44 authorise pharmacists to administer vaccines directly.[5] Several of these countries have well-established programmes enabling pharmacists to deliver a broad portfolio of vaccines, including those on national immunisation schedules and travel vaccines, while others remain in earlier stages, with authorisation limited to influenza and COVID-19 vaccines and only partial integration into routine delivery.[7]

With the landscape continuing to evolve rapidly, a review of progress made as of 2026 is both timely and necessary. Persistent gaps in adult vaccination coverage, compounded by demographic and workforce pressures, reinforce the continued importance of strengthening and expanding pharmacy-based approaches.

1.2 Purpose

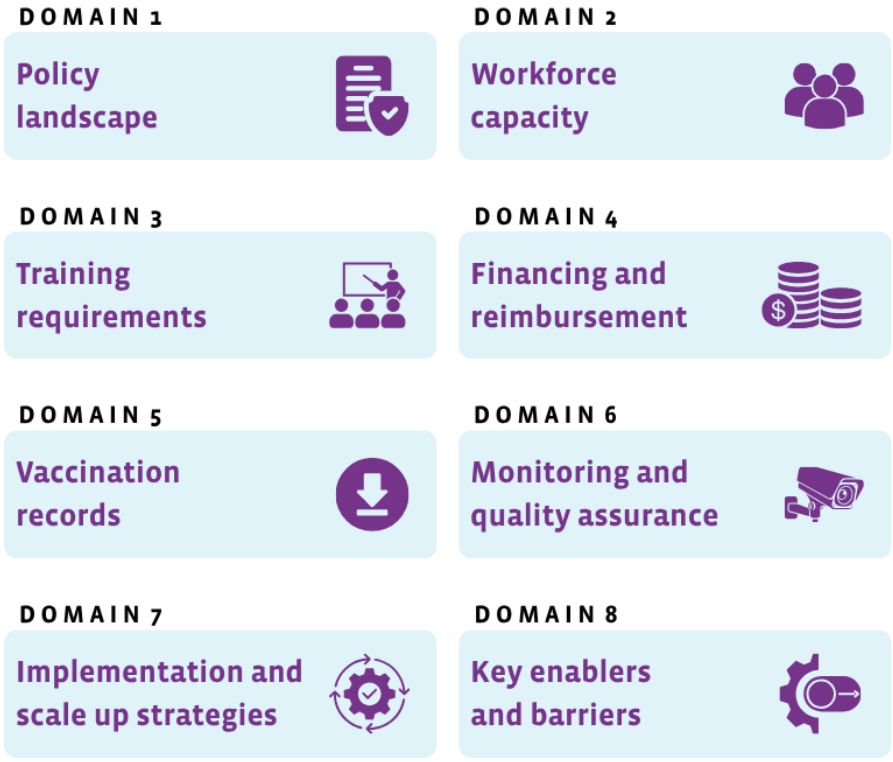
This report presents an updated collection of country case studies offering a detailed account of PBV progress globally as of 2026. Member organisations from Australia, Canada, France, Ireland, Italy, Portugal, and the UK, each representing countries with mature pharmacy-based vaccination implementation, were invited to document their national experience across eight domains: policy landscape, workforce capacity, training and education, finance and reimbursement, vaccination records, quality assurance and monitoring, scale-up and implementation, and key enablers and challenges.

2 Case studies

This chapter presents a compilation of seven case studies submitted by FIP member organisations, alongside data extracted from the FIP database based on surveys conducted in 2016,[8] 2019,[9] and 2024.[10] The FIP database contains information collected from member organisations to assess the evolving role of pharmacists in vaccination. It tracks changes in vaccine administration and prescribing authority, education and training for the pharmacy workforce, as well as barriers to the implementation and expansion of pharmacy-based vaccination (PBV) services.

The case studies provided by Australia, Canada, France, Ireland, Italy, Portugal, and the UK, examine the following eight domains, as shown in Table 1.

Table 1: Eight domains of case-study analysis



2.1 Australia

KEY SUMMARY

PHARMACY-BASED VACCINATION (PBV)

AUSTRALIA

KEY INDICATORS

Population (Millions)	Pharmacies	Trained pharmacist vaccinators	Vaccines administered in pharmacies (%)	Year PBV was established
27.2	~5,800	9,000+	19.4 (of all vaccines)	2014

VACCINATION SERVICE DELIVERY

POLICY LANDSCAPE
National Immunisation Strategy 2025–2030 explicitly recognises pharmacists as key providers. Scope has progressively expanded to more vaccines, lower age limits, and off-site delivery.

FINANCING
National Immunisation Program Vaccinations in Pharmacy (NIPVIP) covers both the vaccine and administration fee for eligible patients, with no out-of-pocket costs.

TRAINING
Accredited immunisation programme (approximately 23 hours blended learning) including injection technique and CPR.

VACCINATION RECORDS
Mandatory upload to Australian Immunisation Register (AIR), a lifetime national registry. Automated via clinical software at point of care.

QUALITY ASSURANCE
Pharmacy Board of Australia oversees professional conduct. State health departments maintain jurisdictional vaccination authority and conduct site audits.

ENABLERS

- Strong government and policy support for expanding pharmacist roles, reflected in national strategies, funding programmes, and scope-of-practice reforms.
- Recognition of pharmacies as essential providers during public health emergencies, enhancing legitimacy.
- Pharmacist immunisers are increasingly recognised as safe, competent and effective vaccinators by individuals.
- Increasing acceptance of team-based care models.

BARRIERS

- Complexity: Slow progress in harmonising divergent policy positions across jurisdictions, despite shared commitments to harmonise poisons regulations.
- Variable awareness of scope: Most individuals remain unaware of the full range of vaccines available in pharmacies. Some individuals have difficulty self-navigating regulatory complexity when trying to identify where to access vaccination.

Case study provided by the Pharmaceutical Society of Australia, reflecting PBV developments up to May 2026.

Member organisation:	Pharmaceutical Society of Australia (PSA)
Case study author:	Peter Guthrey; Senior Pharmacist, Strategic Policy & Advocacy

Indicators	
Population (millions)[11]	27.2
Population > 65 years (% total)[11]	18
Health expenditure (% GDP)[11]	10.4

2.1.1 Policy landscape

Pharmacy-based vaccination is well established in Australia and forms a routine component of community-based immunisation delivery. Pharmacists are authorised to initiate and administer vaccines without a prescription, subject to completion of accredited training. The range and limitation of this authority vary between Australian jurisdictions.

The regulation of pharmacist vaccination is primarily the responsibility of state and territory governments, resulting in minor jurisdictional variation in scope; however, all jurisdictions now permit pharmacists to prescribe (initiate) and administer a broad range of vaccines across the life course.

a. Pharmacists' authorisation to administer and prescribe vaccines

Across all Australian states and territories, appropriately trained pharmacists are authorised (as pharmacist immunisers) to initiate (supply and/or prescribe where applicable) and administer vaccines in community pharmacy settings. Authorisation is generally granted through medicines and poisons legislation or specific vaccination standards issued by chief health officers or health departments.

Pharmacists must practise within their individual scope and in accordance with national clinical references and expert advice. For example, most regulatory instruments require compliance with the Australian Immunisation Handbook[12], which serves as the national clinical reference standard for vaccination.

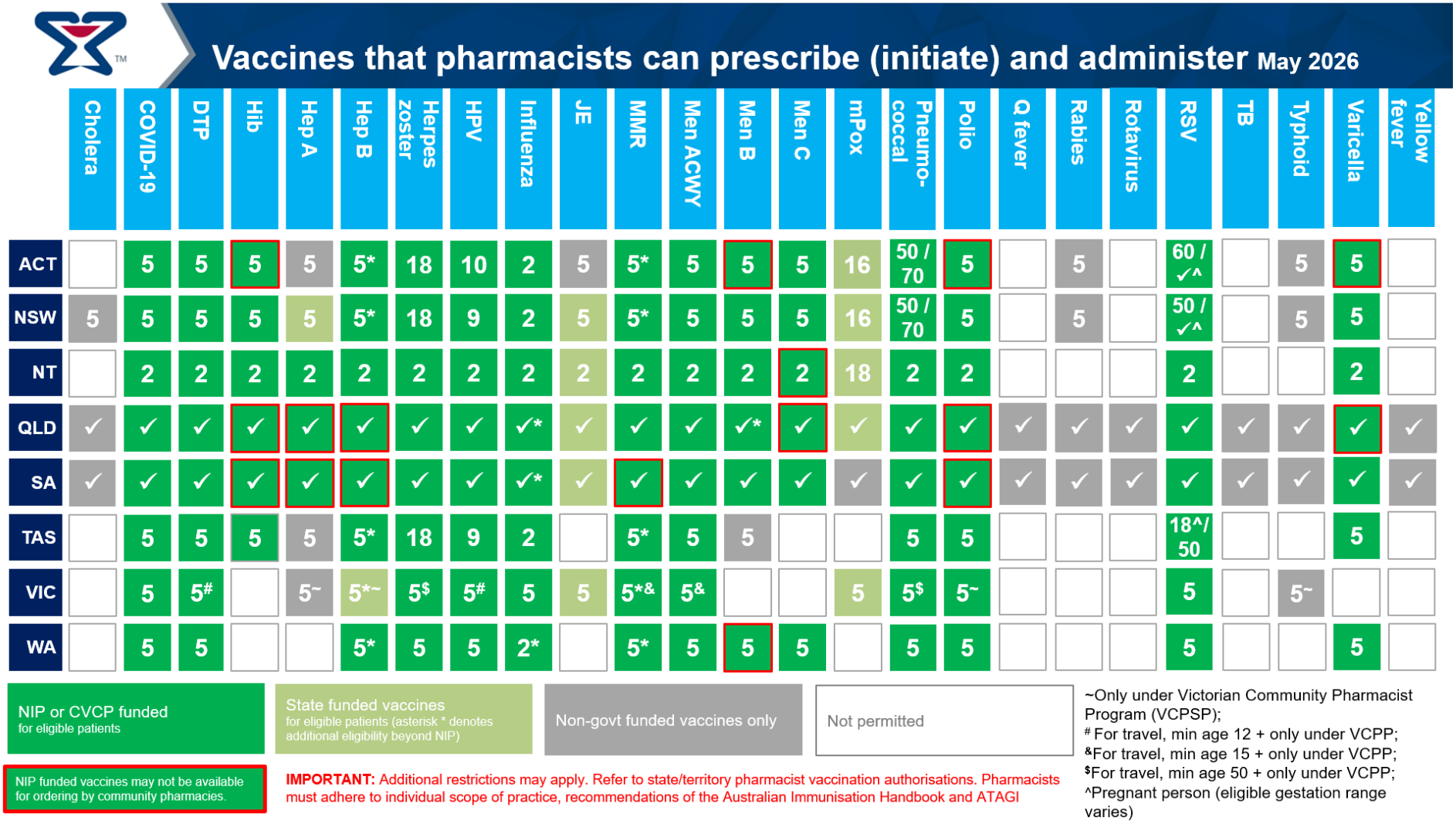
Pharmacists are also generally able to administer any medicine which a patient has legal possession of, such as any vaccine dispensed from a prescription by an authorised prescriber. This authority is separate from state/territory pharmacist immuniser authorities, however pharmacists must be able to demonstrate administration is within their individual scope of practice.

b. Vaccines provided and eligible populations

Pharmacist immunisers in Australia can initiate and administer the majority of available vaccines to most individuals. The breadth of this authority has substantially grown over the past decade.

This authority varies by jurisdiction, as depicted in Table 2 below:

Table 2: Vaccines that pharmacists can prescribe (initiate) and administer (May 2026)[13]



In all jurisdictions (minimum ages vary):

- COVID-19
- diphtheria, tetanus and pertussis-containing vaccines
- herpes zoster
- human papillomavirus (HPV)
- influenza
- measles, mumps and rubella containing vaccines
- pneumococcal
- respiratory syncytial virus

Note: criteria for inclusion in the above list is that vaccinator authority is not linked to expanded scope programme.

Age eligibility and specific conditions vary by vaccine and jurisdiction, but minimum age thresholds have progressively decreased over time. Currently, the minimum age for pharmacist initiation and administration of vaccines is:

- Not defined in Queensland and South Australia (i.e., no restrictions)
- Five years of age in other jurisdictions for most vaccines (influenza vaccines: two years of age in Australian Capital Territory (ACT), New South Wales (NSW), Tasmania and Western Australia)

The formularies mean provision of travel health services is possible in most jurisdictions (requires additional authority in Victoria through Victorian Community Pharmacy Programmes).

Pharmacist immunisers also have authority to support specific targeted vaccination campaigns, such as mpox and Japanese encephalitis, subject to jurisdictional regulation.

c. Integration into Australia's immunisation programmes:

1. National Immunisation Programme (NIP)

The National Immunisation Programme is Australia's publicly funded immunisation programme, established to provide free vaccination against priority vaccine-preventable diseases to eligible people across the life course. It provides nationally agreed, ongoing funding for core vaccines. The programme is jointly funded by the Australian Government, and state and territory governments and is delivered through a range of authorised immunisation providers, including general practices, community health services, Aboriginal Community Controlled Health Services, and community pharmacies.[14]

It includes childhood vaccination, adolescent vaccination and adult vaccination. Some vaccines are limited to specific population cohorts based on age, medical conditions or other risk factors for severe disease.

NIP vaccines available through pharmacies are managed by state and territory health departments and currently generally include all NIP vaccines which pharmacists have authority to initiate and administer in that jurisdiction.

2. National Immunisation Programme Vaccinations in Pharmacy (NIPVIP) Programme

Community pharmacy-based vaccination is fully integrated into Australia's National Immunisation Programme through the NIPVIP programme. This programme was introduced on 1 January 2024 and funds the administration fee for NIP vaccines. Under the NIPVIP Programme, pharmacist immunisers in participating community pharmacies can administer NIP-funded vaccines to eligible individuals, with no out-of-pocket cost to patients. Pharmacists and pharmacies receive a service payment for each NIP vaccine administered, with participating pharmacies required to meet programme and jurisdictional authorising requirements.[15]

3. State-based immunisation programmes

Australia's state- and territory-funded immunisation programmes exist to complement and extend the National Immunisation Programme by enabling timely, targeted vaccination responses to local public health needs and priorities. State and territory programmes allow governments to respond flexibly to

epidemiological risk, outbreaks, population-specific gaps, and implementation challenges within their jurisdictions.

Examples of state-funded vaccines community pharmacies can initiate for at-risk individuals:

- Intranasal influenza vaccine: Time-limited programme for children in NSW, SA and WA in 2026
- Measles, mumps and rubella: adult-vaccination catch up programme
- Meningococcal B (Queensland and SA)
- mPox (ACT, NSW, Queensland, Victoria)
- Japanese encephalitis (NSW, NT, Queensland, SA, Victoria)
- Hepatitis A and Hepatitis B (NSW)

Note: This list is illustrative and is not comprehensive.

d. Data on coverage and doses delivered

While most publicly reported coverage data are not routinely disaggregated by provider type, the following data are available:

- Pharmacist immunisers in community pharmacies administered 19.4% (n=4,547,996) of all vaccines in Australia in 2025[16]
- Community pharmacies are one of the major provider types for cyclical vaccination, with ~30% (n=2,648,160 [2025]) of all influenza vaccine doses[17] and approximately half of COVID-19 vaccine doses in recent years being administered in a community pharmacy.
- Australia's childhood vaccination rate is high by global standards, with 92% of five-year-old children considered up to date with vaccination. This, however, is below the national target of 95% and has fallen over the past five years. Data on pharmacist immuniser doses administered to young children is unavailable but is deduced to be very low as it is only permitted in South Australia and Queensland (other than influenza) and a funding mechanism for the administration fee does not exist.

The proportion of vaccines administered by pharmacist immunisers in Australia varies substantially between vaccine-preventable disease, as outlined in Figure 1.

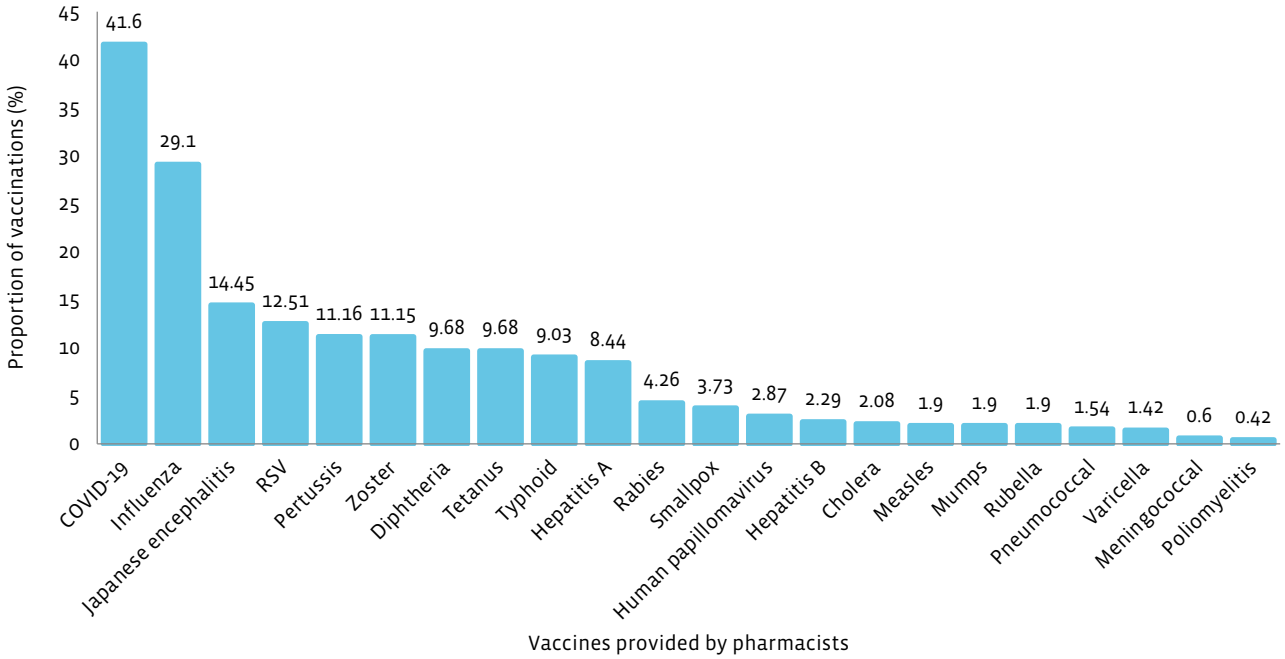


Figure 1. Proportion of vaccinations provided by pharmacists

2.1.2 Workforce capacity

Australia has a well-established and rapidly expanding pharmacy-based vaccination workforce. Since its introduction in 2014, pharmacy-based vaccination has increased to the point where:

1. Most community pharmacists have become pharmacist immunisers. While there is no publicly available data which tracks the total number of pharmacist vaccinators, more than 9,000 pharmacists have completed accredited immunisation training programmes, representing a substantial pool of authorised pharmacist immunisers.
2. Most community pharmacies now provide vaccination services, with both walk-in or appointment-based immunisation services available. As the most equitably distributed health setting, community pharmacy provides substantial capacity for pharmacist vaccination services for both routine and campaign vaccinations.
3. Pharmacy-based vaccination has become a major delivery channel, with approximately one-quarter of all vaccinations in Australia administered in community pharmacies.
4. Pharmacists have provided substantial surge capacity during vaccination campaigns, such as COVID-19 pandemic response and winter vaccination campaigns. Each year pharmacists in community pharmacies administer over 2 million (~30%) influenza vaccines and have administered over 14.1 million doses of COVID-19 vaccines.

2.1.3 Training requirements

Pharmacists in Australia must meet nationally consistent (but jurisdictionally applied) training and regulatory requirements to administer vaccines. Key elements include:

a. Initial certification

Pharmacists must complete an accredited Immunisation Training Programme aligned with the Australian Pharmacy Council (APC) accreditation standards. PSA is the largest provider of this training. These programmes include ~23 hours of blended learning (online modules plus practical workshops), which includes assessment of clinical knowledge and injection technique.

To be authorised as a pharmacist immuniser, pharmacists generally must also:

- Hold general or provisional registration with the Australian Health Practitioner Registration Authority (AHPRA) (national regulator) on behalf of the Pharmacy Board of Australia
- Maintain current First Aid and cardiopulmonary resuscitation (CPR) certification
- Maintain ongoing competence in individual scope of practice. This is supported by online training courses in vaccination, webinars, reviewing clinical resources and/or attending practical workshops.

e. Collaborative arrangements with other healthcare providers

Pharmacist immunisers are autonomous practitioners and do not require supervision from other health professionals to initiate and administer vaccines within their personal scope of practice and legal authority.

However, collaborative arrangements with other healthcare providers include:

- Shared reporting and records: Reporting of all vaccinations to the Australian Immunisation Register to support shared visibility of vaccination history and continuity of care across providers (GPs, nurses, hospitals etc.)
- Team-based care and referral pathways: Pharmacists collaborate with other vaccination providers for patients outside of individual scope of practice, or where specialist immunisation services are required (e.g., individuals with additional needs who require low-stimulation vaccination environments and/or sedation for vaccination). There are examples of referral to reduce financial costs to patients, such as accessing NIP vaccines for young children, including catch-up vaccines, or to access humanitarian immunisation programmes (e.g., refugees).
- Outreach and aged care services: Under programmes such as NIPVIP, pharmacists may deliver vaccination off-site (e.g., residential aged care facilities and disability settings), often in coordination with other healthcare providers.

2.1.4 Financing and reimbursement

Pharmacy-based vaccination (PBV) in Australia is funded through a range of financing and reimbursement arrangements, including:

1. Commonwealth government funding
2. State/territory government funding
3. Workplace programmes
4. Patient funded

Private health insurance generally does not cover the cost of vaccination. However, some private health insurance policies will partially reimburse private prescriptions dispensed, which may include vaccines.

Funding arrangements are considered to be complex, particularly where funding mechanisms for the vaccine and administration fee do not align (e.g., NIP vaccines for children under the age of five years, NIP vaccines administered off-site, or state funded vaccines with no administration fee funding).

a. Commonwealth Government funding

The Commonwealth Government funds the cost of vaccines supplied to community pharmacies via the National Immunisation Programme (NIP) and the COVID-19 vaccination programme. These vaccines are distributed by state and territory government health departments to pharmacy sites.

Patient eligibility for NIP vaccines is dependent on:

- Eligibility for Medicare (Australia's universal health scheme)
- Patient age, medical conditions, and vaccination status
- Aboriginal and Torres Strait Islander status (broader accessibility to NIP vaccines).

Funding of the administration fee for Commonwealth-funded vaccines is provided through:

1. National Immunisation Programme Vaccination in Pharmacy Programme (NIPVIP)

Community pharmacy-based vaccination is formally funded under the NIPVIP programme. Through this programme, participating community pharmacies are reimbursed for administering eligible NIP-funded vaccines to eligible individuals, with no out-of-pocket cost to patients. Eligible individuals include people over the age of five years who are entitled to a Medicare card (i.e., people entitled to access Australia's universal health scheme). The Australian Government announced in May 2026 that patient eligibility will soon extend to children under the age of five years.

Under NIPVIP:

- Pharmacies receive a fixed service administration payment per vaccine administered, paid through the Pharmacy Programmes Administrator. In 2025/26, this fee is $A20.05 (indexed annually).
- Programme rules require the NIP-funded vaccine to be administered to a person over five years of age on-site in the community pharmacy or at a residential aged care or disability care facility in order to be eligible for the fee.

2. COVID-19 Vaccine in Community Pharmacy (CVCP) Programme

Introduced in 2021, this programme formed part of Australia's COVID-19 vaccine programme. Community pharmacies have administered 14.1 million COVID-19 vaccine doses in this programme. This programme was developed and continues to operate separately to Australia's National Immunisation Programme. However, steps towards adopting COVID-19 vaccines into the NIP are underway (e.g., alignment of service fee, Pharmaceutical Benefits Advisory Committee (PBAC) recommendation for NIP listing).

b. State- and territory-funded immunisation programmes

State and territory governments operate jurisdiction-specific immunisation programmes (See Section A). These programmes are used to support:

- Targeted outbreak or emergency responses (e.g., mpox, Japanese encephalitis)
- Expanded access to selected vaccines for defined at-risk cohorts
- Time-limited public health initiatives aligned with local epidemiology.

In several jurisdictions, community pharmacists administer state-funded vaccines, which are provided to the pharmacy without charge.

Generally, state-funded programmes provide no-cost vaccines and do not cover the full cost of service delivery. However, funding models vary and may include:

- Provision of government-supplied vaccine stock only
- Reimbursing pharmacies for the cost of the vaccine (influenza 'free flu vaccine' programmes only)
- Vaccine administration payments to pharmacies (generally limited to influenza 'free-flu vaccine' programmes)
- Hybrid models where vaccines are supplied by state government health departments but administration funding is limited or absent.

c. Patient private vaccination services

For vaccines not funded through the NIP or state programmes, PBV is typically provided on a **private basis**, with costs met by patients.

In these cases:

- Patients usually pay for the vaccine cost and an administration fee charged by the pharmacy.
- Pricing is not nationally regulated and may vary by vaccine type, jurisdiction, and pharmacy business model.

Private vaccination services commonly include travel vaccines and other recommended vaccines that fall outside public funding criteria. In some jurisdictions, additional authority or programme participation is required for pharmacists to deliver these services.

2.1.5 Vaccination records

The Australian Immunisation Register (AIR) is Australia's whole-of-life national immunisation register.

Community pharmacies are recognised vaccination providers and are required to submit vaccination data to AIR in a timely manner. All pharmacist-administered vaccinations must be recorded in the AIR (exception: mpox vaccination can be withheld from upload at patient request).

While there is an expectation for all vaccine providers to upload all vaccine events to the AIR, upload is mandatory for all vaccines which are NIP-funded or are antigens for influenza, COVID-19 or Japanese encephalitis.[18]

This occurs instantaneously with use of clinical software. The AIR serves as an individual person's lifetime vaccine records, as well as contributing data for national monitoring of vaccine coverage and programme performance.

Vaccination providers can access a person's AIR record through:

- Clinical software
- Web login to PRODA (Australia's health provider digital access platform)
- My Health Record (MHR) (Australia's digital patient record system [opt-out model with ~90% of Australians having a MHR)])

Vaccine encounters by other health providers (e.g., overseas) can be uploaded via PRODA. Individuals can access their AIR record via My Health Record or through other MyGov services (online government portal).

2.1.6 Quality monitoring system

Quality and safety of pharmacy-based vaccination (PBV) services in Australia are managed through a combination of national clinical standards, jurisdictional regulatory instruments, and professional practice requirements, as outlined in Table 3 below.

Table 3: Quality, safety, and performance of PBV services

Requirements	Description
Pharmacist practitioner	Pharmacist immunisers must practise within their individual scope and comply with conditions set out in relevant state and territory medicines and poisons legislation or vaccination standards issued by health departments.
Pharmacy providers	Pharmacies must comply with programme-specific rules and audit requirements, including eligibility checks, record-keeping, and claims verification.
State health departments	• Maintain authority for pharmacist vaccination in each jurisdiction, which may include clinical governance levers such as formulary scope, site requirements, training requirements etc. • Some state health departments undertake inspections and audits of vaccination sites. • Vaccination safety units monitor reports of adverse events following vaccination.
Pharmacy Board of Australia	Oversight of professional conduct of registered pharmacists, including responding to notifications regarding vaccination services.
Commonwealth Government	• Responsibility for Australia's Immunisation Strategy and coordination of jurisdictional implementation, including role of pharmacy immunisation programmes. • Australian Technical Advisory Group on Immunisation: Provides expert committee clinical guidance on Australia's immunisation programmes, including advice in the *Australian Immunisation Handbook*. • Maintains Australian Immunisation Register, including data integrity and use. • Maintains National Vaccine Storage Guidelines (Strive for 5) which apply to all providers of vaccination services. • The Therapeutic Goods Administration has oversight of registration of medicines, including vaccines. This includes post-market surveillance of adverse events following vaccination.
Professional organisations	• Pharmaceutical Society of Australia maintains practice guidelines for vaccination services provided by pharmacists.[19] • Liaise with government to support design, delivery and regulation of PBV. • Provision of advice to individuals, and news alerts. • Provision of ongoing education in vaccination.
Accreditation programmes	Community pharmacy vaccinations services are subject to audit by quality accreditation programmes. Over 92% of Australian community pharmacies are currently accredited to *AS85000 Quality Care Community Pharmacy Standard*.[20]

2.1.7 Implementation and scale-up strategies

PBV services are provided in Australia in the following premises:

a. Community pharmacies[19]

PBV services in Australia are delivered as integrated clinical services within routine community pharmacy workflow. While each practice will have an individualised approach to service set-up, common features include:

Physical setup and infrastructure

- A consultation or "professional services" room should be used to provide visual and auditory privacy to patients. This room is separate from the retail area and must not be within the dispensary.
- Typical specifications include infection control, and safe management of adverse events.

- These consultation rooms must be equipped for clinical care, including seating for the patient and a support person, and emergency management capacity (e.g., anaphylaxis kit and space to manage anaphylaxis).
- An area to allow patients to be seated and observed for 15 minutes post-vaccination must also be set-up.

Staffing and workflow

- Services are delivered by a trained pharmacist immuniser, supported by other pharmacy staff (e.g., pharmacy assistants).
- Support staff roles generally include patient triage and booking, workflow coordination, and post-vaccination observation. Some jurisdictions require first aid and CPR certification of support staff involved in post-vaccination observation or similar.

Service workflow

Standard PBV service in community pharmacy generally involves:

- *Patient access* – walk-in or appointment booking (often same-day availability)
- *Patient screening and consent* – clinical assessment against suitability for vaccination, precautions and contraindications. Patients (or authorised legal representative) must provide informed verbal or written consent.
- *Vaccine preparation and administration*: involve the safe handling, preparation, and delivery of vaccines to ensure their effectiveness and patient safety.
- *Documentation and reporting:* This usually occurs in clinical software in the consultation room. Some providers may complete this after the vaccine encounter (e.g., outreach services). It is mandatory to upload pharmacist-administered vaccines to the Australian Immunisation Register, which is usually automated by clinical software, but can be done manually via web-portal.
- *Post-vaccination observation:* This occurs in a waiting area consistent with clinical guidance and is usually 15 minutes duration.
- *Follow-up or referral if required*: For example, booking appointment for next vaccine dose or referring a person to an alternate provider for vaccination if their needs are outside the pharmacist immuniser's individual scope of practice.

These workflows are embedded within routine pharmacy operations but follow formal clinical governance protocols and national guidelines (i.e., *Australian Immunisation Handbook*, cold-chain requirements [*Strive for 5 National Vaccine Storage Guidelines*]).[21, 22]

Community pharmacy vaccination services models have grown beyond in-pharmacy vaccination, and include:

- Permanent in-pharmacy clinics (most common)
- Seasonal vaccine campaign in-pharmacy clinics (e.g., influenza vaccination periods)
- In-home outreach vaccination service
- Outreach services to other provider settings, such as residential aged care and residential disability care settings
- Outreach pop-up clinics (e.g., at a community event, religious institution or workplace vaccination)

These models allow for both pre-booked and opportunistic vaccination (e.g., opportunistic vaccination during medicine dispensing or non-prescription medicine consultation). This flexible organisation allows pharmacies to scale services depending on demand, including mass vaccination during public health emergencies.

b. Hospital pharmacy

Hospital pharmacists generally do not routinely initiate and administer vaccines within hospitals. However, pharmacists in hospitals will often have oversight of vaccination programmes, including responsibility for chain of custody of vaccines (including cold chain) within public health services (e.g., public health units) and mass vaccination services, such as those established during the acute phase of the COVID-19 pandemic.

There are generally no regulatory impediments to hospital pharmacists taking on the role of pharmacist immunisers, but the role is generally not contained in hospital policies and procedures.

d. Other primary care providers

Pharmacist immunisers are practising to varying degrees in other primary care settings such as general practice (medical centres) or Aboriginal Community Controlled Health Organisations (ACCHOs). While in many cases practice nurses lead vaccination services in these settings, on-site pharmacists are increasingly providing surge capacity or workforce resilience for vaccination.

There are generally no regulatory impediments to pharmacists in General Practice or ACCHOs immunising patients; however, government funding structures do not currently provide remuneration for pharmacists to undertake vaccination in these roles.

Referral pathways and care integration

PBV services operate within Australia's primary health system where consumers have a choice of provider for their health services. Referral pathways are predominantly informal and are generally used where a community pharmacist immuniser is unable to support an individual's vaccination needs due to personal scope of practice, vaccine availability, patient preference or additional patient needs not able to be met in the pharmacy (e.g., low stimulation environment, sedation etc.)

Mandatory reporting to the Australian Immunisation Register (AIR) ensures that all providers (GPs, nurses, pharmacists) can access up-to-date vaccination histories, supporting continuity of care.

GPs and other providers may direct patients to pharmacies for convenient or timely vaccination.

Approaches to scale-up

Australia has demonstrated strong capability to scale PBV services through a combination of policy, funding, and workforce strategies:

a. Leveraging accessibility of community pharmacy network: With >5,800 pharmacies nationally, PBV scale-up relies on distributed access points embedded in local communities, enabling rapid expansion of services. For example, during the COVID-19 pandemic, community pharmacies provided surge capacity, increasing service delivery from an average of 20,000 doses daily to 80,000 doses daily within days. This allowed rapid vaccination in a health emergency, including adopting short-notice changes in clinical guidance and patient eligibility.
b. National funding programmes: Through providing no-cost access to vaccination, the National Immunisation Programme Vaccinations in Pharmacy (NIPVIP) programme has supported scaling up of pharmacist vaccination. For example, the proportion of influenza vaccines pharmacists administer each year grew 20% (19.9% in 2023 to 23.7% in 2024) in the first year the programme was introduced. Similarly, pharmacists administer a much higher proportion of vaccines where those vaccines have been launched following the introduction of the NIPVIP programme (e.g., herpes zoster (shingles) and RSV).
c. Other funding measures: While the NIPVIP programme has supported recent scaling of PBV, early growth in PBV was fuelled by initiatives such as state funded vaccine programmes, availability of NIP vaccines, and aged care accreditation requirements. These encourage pharmacy participation and continue to support scaling.
d. Flexible delivery models: Pharmacist immunisers can deliver both on-site and off-site vaccination services, including in aged care and disability settings, improving reach to priority populations. Walk-in access and extended hours of community pharmacies reduce patient barriers and support service sustainability.
e. Integration into government policy: The National Immunisation Strategy 2025–2030 promotes a "whole-of-system" approach, explicitly recognising pharmacists as key providers for improving access and equity.

Recent innovations and policy developments

Recent years have seen significant innovation and reform supporting PBV expansion:

a. Expansion of funded programmes and service settings: The NIPVIP programme (introduced in 2024, with expansion in April 2024 [off-site vaccination in residential aged care and disability settings] and 2026 [date TBC] [children under five years age]).
b. Expansion of scope of practice: Jurisdictions have progressively expanded scope of practice. Advancements in the past 18 months have included:

- Lowering age eligibility to two years (Northern Territory) for all permitted vaccines (except mpox) and for influenza (NSW, ACT, Tasmania, Western Australia)
- Broader range of vaccines: examples include addition of cholera (NSW), rabies (NSW, ACT), Haemophilus influenzae type b (Tasmania)
- Broadening scope to all vaccines (South Australia and Queensland)
- Authority for intern pharmacists to administer vaccines in some jurisdiction.

c. National policy direction and harmonisation: Peak bodies are advocating for nationally consistent vaccination rules and expanded access ("all vaccines, all ages, all locations"), aiming to remove jurisdictional variability and maximise utilisation of the pharmacy workforce.

d. Service design and digital innovation: Pharmacies are consistently adopting improved consultation room design, booking systems, and workflow optimisation to support higher-quality, higher-volume service delivery. Most pharmacy banner groups and some independent pharmacies now provide online booking systems for vaccination, which are linked from HealthDirect, the Australian Government's public health services directory.

2.1.8. Key enablers and barriers

The factors supporting and hindering PBV implementation in Australia are described in Table 4 below.

Table 4: Factors supporting and hindering PBV implementation in Australia

Factors	Factors supporting PBV implementation	Factors hindering PBV implementation
Policy	• Momentum: Progressive expansion of scope of practice with increasingly permissive jurisdictional regulatory instruments. • Access to NIP vaccines in PBV: Broad access to NIP vaccines through community pharmacies improves access equity for patients. • National Immunisation Strategy 2025–2030: Promotes a "whole-of-system" approach, explicitly recognising pharmacists as key providers to improve access, equity, and workforce capacity.	• Jurisdictional inconsistency: Variation in vaccine eligibility, age limits, and practice conditions reduces efficiency and consistency in service delivery. • Regulatory complexity and administrative burden: Pharmacists must navigate multiple legislative instruments, approvals, and programme rules, which can hinder uptake or scaling. This can also lead to reduced consumer confidence through health practitioner hesitation when navigating complexity.
Workforce	• Large, accessible workforce: Community pharmacists are widely distributed and accessible without appointment, supporting opportunistic vaccination and rapid scale-up. • Established credentialled training programmes: Externally accredited training programmes for pharmacist immunisers have built up the workforce over time. • PBV at workforce entry: The vast majority of pharmacist interns have completed immunisation training during or immediately after their intern year, supporting large growth in the number of pharmacist immunisers. This is a result of some intern training providers having bundled pharmacist immuniser training with their intern training course.	• Workforce pressure and competing demands: Pharmacists balance vaccination services alongside dispensing and other clinical roles, potentially limiting capacity. • Variation in workforce readiness: Not all pharmacists are trained immunisers, and training uptake may vary by region or employer support. • Need for ongoing upskilling: Expanding vaccine scope and new vaccines (e.g., RSV) needs continuous education.
Financing	• Funding NIP vaccines and funding administration fee for NIP vaccines: NIPVIP supports cost-free access to NIP-vaccines for eligible individuals, removing fee variation. • Indexation and funding expansion: Recent reforms include indexed payments and	• Modest service fees: Payment levels may not fully reflect service delivery costs (staff time, training, infrastructure), limiting expansion. • Funding fragmentation: Separate funding arrangements for different vaccines/programmes (e.g., COVID-19 vs NIP)

Factors	Factors supporting PBV implementation	Factors hindering PBV implementation
	inclusion of additional service settings (e.g., aged care), improving viability. • Private market flexibility: Pharmacies can offer privately funded vaccines (e.g., according to individual business pricing policy).	can create administrative complexity (although reforms are improving alignment). • Upfront investment requirements: Pharmacies must invest in consultation rooms, training, and equipment.
Data and monitoring systems	• Australian Immunisation Register (AIR): Mandatory upload of vaccine events ensures national, real-time vaccination records. This enables government coordination across providers (GPs, pharmacists, public health). AIR can also produce reports at a practice level of patients due for vaccination to facilitate patient reminders. • National datasets support monitoring of coverage and programme effectiveness, with interactive dashboards for providers, policymakers and the general public under development. • Formation of the Australian Centre for Disease Control will improve provision of advice and surveillance coordination.	Data utilisation gaps: While data is collected, targeted interventions and performance monitoring (a priority in national strategy) will require clinical systems to be further developed and integrated.
Stakeholder engagement (e.g., policymakers, other healthcare providers and the public)	• Strong government and policy support for expanding pharmacist roles, reflected in national strategies, funding programmes, and scope-of-practice reforms. • Recognition of pharmacies as essential providers during public health emergencies, enhancing legitimacy. • Increasing acceptance of team-based care models. • Growing consumer trust and confidence: Pharmacist immunisers are increasingly recognised as safe, competent and effective vaccinators by consumers due to familiarity, individual experience, word-of-mouth and absence of incidents which would adversely affect this confidence. Pharmacist immuniser contribution to COVID-19 vaccination programme particularly accelerated the building of public confidence and normalised pharmacists as vaccinators in minds of consumers.	• Complexity: Slow progress in harmonising divergent policy positions across jurisdictions, despite shared commitments to harmonise poisons regulations. • Variable awareness of scope: Most consumers remain unaware of the full range of vaccines available in pharmacies. Some consumers have difficulty self-navigating regulatory complexity when trying to identify where to access vaccination. • Political advocacy expressing concern about extent of pharmacist scope, particularly regarding full vaccine formulary across all ages.

2.2 Canada

KEY SUMMARY

PHARMACY-BASED VACCINATION (PBV)

CANADA

KEY INDICATORS

Population (Millions)	Pharmacies	Trained pharmacist vaccinators	PBV public support (%)	Year PBV was established
41.3	~10,152	8,000+ (in Ontario)	~70	2007 (in Alberta)

VACCINATION SERVICE DELIVERY

POLICY LANDSCAPE
PBV in Canada is widely implemented, with pharmacists authorised to administer vaccines in nearly all provinces and territories, though prescribing authority and eligible vaccines vary by jurisdiction.

FINANCING
PBV is primarily funded by provincial governments through reimbursement for publicly funded vaccines, though coverage and payment levels differ significantly between jurisdictions.

TRAINING
Pharmacists in Canada must complete additional certified training to administer vaccines, most commonly through programmes accredited by the Canadian Council on Continuing Education in Pharmacy (CCCEP).

VACCINATION RECORDS
Vaccination data is recorded locally and shared through provincial registries rather than a unified national system, enabling continuity of care within provinces but limiting cross-jurisdictional data exchange.

QUALITY ASSURANCE
Quality and safety are ensured through national and provincial guidelines, with adverse events monitored via established reporting systems and coordinated public health surveillance.

ENABLERS

- **Expanded pharmacist roles and public trust**
  The COVID-19 pandemic strengthened pharmacists' role in vaccination.
- **High accessibility of pharmacies**
  Widely available locations and extended hours make vaccination more convenient and improve timely access for diverse populations.
- **Integration into routine care**
  Vaccination is increasingly embedded in pharmacy practice.

BARRIERS

- **Fragmented policies and funding**
  Differences in scope of practice and reimbursement across provinces lead to inconsistent access to vaccines.
- **Limited data integration**
  The lack of a unified national system restricts data sharing and limits effective monitoring.
- **Vaccine hesitancy and workforce pressure**
  Misinformation concerns reduce uptake, while workload challenges constrain service delivery.

Case study provided by the Canadian Pharmacists Association, reflecting PBV developments up to May 2026.

Member organisation:	Canadian Pharmacists Association (CPhA)
Case study authors:	• Madeline Hieneman; Manager, Policy & Stakeholder Engagement • Sadaf Faisal; Chief Pharmacist Officer

Indicators	
Population (millions)[11]	41.3
Population > 65 years (% total)[11]	20
Health expenditure (% GDP)[11]	11.3

2.2.1 Policy landscape

In Canada, all provinces and territories, except Northwest Territories, allow pharmacists to administer vaccines. However, pharmacists' authorisation to prescribe vaccines varies by jurisdiction and is also dependent upon whether the vaccine is publicly funded and/or requires a prescription. CPhA's injection authority and vaccine administration chart[23] outlines pharmacists' authorisation to administer and prescribe vaccines, the types of vaccines pharmacists are eligible to administer, and eligible patient ages (current as of February 2025).

In 2007, Alberta became the first province to allow pharmacists to administer vaccines.[24] In May 2025, Nunavut passed legislation enabling pharmacists to administer vaccines, with implementation expected in 2026.[25] The Northwest Territories is the only territory where pharmacists cannot administer vaccines.

Pharmacists are authorised to prescribe vaccines in all jurisdictions except British Columbia, Ontario, Nunavut, and the Northwest Territories. However, the lack of authorisation to prescribe vaccines does not always create a barrier to pharmacy-based vaccination. In British Columbia, for example, pharmacists are able to independently assess, recommend, initiate, and administer all recommended vaccines based on individual patient assessment and alignment with national and international guidance, despite not having authorisation to prescribe vaccines.

The Public Health Agency of Canada (PHAC) is responsible for making vaccine recommendations and vaccination coverage assessment.[26] The National Advisory Committee on Immunisation (NACI) provides PHAC with expert advice on the use of vaccines authorised in Canada and the development of national vaccination strategies. NACI develops recommended vaccine schedules for infants, children, and adults, which can be viewed under the Canadian Immunization Guide.[27] However, each province decides which vaccines will be publicly reimbursed and determines under what conditions each vaccine will be offered.[28]

2.2.2 Workforce capacity

Number of pharmacists or pharmacies participating in pharmacy-based vaccination by province (data is not available in all jurisdictions):

- **Alberta** – Over 5,000 pharmacists deliver influenza vaccines each year.[29]
- **British Columbia** – 5,240 pharmacists authorised to administer drugs and vaccines by injection as of 2024.[30]
- **Manitoba** – 1,292 pharmacists authorised to administer drugs and vaccines by injections as of 2024.[31]
- **New Brunswick** – 70% of active pharmacists authorised to administer vaccines as of 2020.[32]
- **Ontario** – 8530 pharmacists authorised to administer vaccines as of 2022 (74.6% of the total number of active pharmacists practicing in community settings).[33]

Canada's pharmacy workforce is currently facing several challenges that strain capacity to deliver pharmacy services. Pharmacists in Canada have the slowest growth rate among eight health professions.[34] Additionally, pharmacists are facing increased workload and high levels of burnout. Pharmacists have reported that delivering vaccination services contributes to increased workload.[35]

2.2.3 Training requirements

Most provinces in Canada require additional training to administer or prescribe.[23] The main requirements for each province include:

- **Alberta** – Requires pharmacists to obtain Additional Prescribing Authority if they are prescribing vaccines that require a prescription.[36]
- **British Columbia** – To administer vaccines, or drugs by injection and intranasal route, pharmacists must complete the Immunisation Competency Programme and Practical Administration of Injections and possess certification in CPR and first aid.
- **Manitoba** – Must complete a CCCEP Stage II competency mapped injection training programme and complete the Injection Competency - Manitoba Module 16 training module.[37]
- **New Brunswick** – Must complete a Stage II CCCEP accredited training programme on the administration of drugs by injection.[38]
- **Newfoundland and Labrador** – Must complete a training programme accredited by the Canadian Council on Continuing Education in Pharmacy (CCCEP) to administer vaccines and hold certification in CPR and first aid.
- **Nova Scotia –** Must obtain a CCCEP Competency Mapped Accreditation in administration of drugs by injection.[39]
- **Ontario** – Must hold an Immunization and Injections Certificate to administer vaccines and hold certification in CPR and first aid.[40]
- **PEI** – Must complete a CCCEP stage II accredited immunization[41] and injection training and education programme to receive an Extended Practice Certificate in Drug Administration, as well as certification in first aid and CPR. Pharmacists who received their education and training on the administration of injections as part of the pharmacy programme core curriculum within the last year do not need to meet this requirement.
- **Saskatchewan** – Must hold an Advanced Method Certification (AMC) to administer vaccines and hold certification in CPR and first aid.[41]
- **Quebec**– Must complete basic immunisation course (~10 hours online), training on using the provincial vaccination registry, Injection/administration techniques (theory + hands-on practice) and CPR certification.

2.2.4 Financing and reimbursement

Pharmacies receive reimbursement for publicly funded vaccines from provincial governments. The reimbursement covers the administration fee. However, reimbursement varies by jurisdiction. CPhA's resource on injection authority and vaccine administration displays the variations in reimbursement by jurisdiction.[23] For example, in Saskatchewan, Ontario, and Newfoundland and Labrador, pharmacies only receive reimbursement for COVID-19 and influenza vaccines. In Ontario, individuals who receive a vaccine from a pharmacy that is not an influenza or COVID-19 vaccine are responsible for covering the cost of the vaccine, which may be eligible for private insurance coverage.[42] British Columbia and Quebec cover the highest number of publicly funded vaccines with 12 vaccines eligible for pharmacy reimbursement in each province.

2.2.5 Vaccination records

In Canada, vaccination data is recorded at the point of care—such as a pharmacy, clinic, or physician's office—where healthcare providers document details like the vaccine type, lot number, date, and dose in their local electronic medical record system. This information is then submitted to a provincial or territorial immunisation registry, since Canada does not have a single national registry but instead relies on province-specific systems.[43] For example, in Quebec, all vaccinations are entered into the Québec Vaccination Registry, which serves as the central, authoritative record and can be accessed by authorised professionals such as pharmacists, physicians, nurses, and public health officials. These registries allow healthcare providers across the province to view a patient's vaccination history, helping ensure continuity of care and avoid duplicate vaccinations. While data sharing across provinces is more limited, Canada uses national standards—such as the Canadian Immunization Registry Functional Standards and standardised data dictionaries—to support interoperability and improve information exchange where possible.

2.2.6 Quality monitoring system

The federal government provides guidance on vaccine practices for health professionals who administer vaccines. This includes the National Advisory Committee on Immunization (NACI)'s national guidelines for immunization practices,[44] NACI vaccine administration guidelines,[45] and the Public Health Agency of Canada's Immunization Competencies for Health Professionals.[46]

Most provinces have developed their own standards and protocols for administering vaccines:

- **Alberta** – Immunization Program Standards Manual[47] and Adverse Event Following Immunization Reporting[48]
- **British Columbia** – Immunization Manual[49]
- **Manitoba** – Manitoba Immunization Program Manual [50] and Practice Direction: Administration of Drugs including Vaccines[51] (specific to pharmacists)
- **New Brunswick** – Immunization Practice Standards[52] and Standards for Reporting Adverse Events Following Immunizations[53]
- **Newfoundland and Labrador** Newfoundland and Labrador Immunization Manual[54]
- **Nova Scotia** – Immunization Manual[55]
- **Ontario** – Administering a Substance by Injection Guideline[56] (specific to pharmacists) and Reporting Adverse Reactions to Vaccines and Medications[57]
- **Quebec** – Quebec Immunisation Protocol (PIQ)[58]
- **Saskatchewan** – Immunization Manual[59]

Nationally, adverse reactions to health products marketed in Canada are reported through MedEffect Canada on a voluntary basis.[60] The Canada Vigilance Program, established in 1965, is responsible for the collection and assessment of adverse reactions to health products.[61] Most jurisdictions (Ontario, Quebec, Nova Scotia, Manitoba, New Brunswick, Saskatchewan, Prince Edward Island and Northwest Territories, BC, Alberta and Nunavut) have legislative requirements that mandate reporting for adverse reactions to local or regional public health units.[62]

2.2.7 Implementation and scale up strategies

Pharmacies may scale up vaccine delivery services in order to increase vaccination coverage or target specific populations. For example, the Adult Immunization Initiative[63] operated by the pharmacy chain, Neighbourly Pharmacy, administered over 4,300 adult immunisations, specifically RSV, HPV, pneumococcal disease and shingles vaccines, over a 12-week period. Neighbourly Pharmacy prioritised using education and workforce optimisation to support the integration of vaccine services across three hundred pharmacies, including clinical training webinars and education materials for pharmacist technicians and assistants.

Pharmacies may vaccinate individuals outside of the physical location of a pharmacy under specific conditions. For example, in Ontario, pharmacies may administer influenza vaccines to residents in retirement homes[64] within the boundaries of the pharmacy's local public health unit. Some pharmacies may operate vaccine clinics outside of the pharmacy at public locations such as schools or office buildings to increase vaccine coverage. In British Columbia, the pharmacy chain Rexall held vaccine clinics for first-responders,[63] specifically providing the vaccine that prevents shingles.

2.2.8 Key enablers and barriers

1. **Key enablers**

Since the COVID-19 pandemic, the role of the pharmacist has been evolving. Pharmacists were integral to the delivery of COVID-19 vaccines, underscoring the role that pharmacists can play in delivering vaccines and supporting public health goals. In Canada, pharmacists are now the dominant providers of influenza vaccines.[65] At the same time, recent expansion in scope of practice across Canada has led to pharmacists providing more primary care services (e.g., vaccinations, common or minor ailment assessment, and point of care testing), demonstrating how pharmacists are key partners in delivering equitable and timely access to care. Public awareness and opinion of pharmacy-based vaccination also contribute to PBV implementation. In a 2021 survey, almost 70% of Canadians supported routine vaccinations being made available in pharmacies.[66]

2. **Key barriers**

a. Pharmacy scope of practice is not harmonised across Canada and fractured governance among the federal government and provincial and territorial governments results in inconsistencies in vaccine policies and coverage.[28] Although all provinces and territories (except the Northwest Territories) permit pharmacists to administer vaccines, not all jurisdictions permit pharmacists to prescribe vaccines and the type of vaccines that pharmacists can administer may vary by province. For example, all provinces except Ontario allow pharmacists to administer the MMR, diphtheria/tetanus,

and polio vaccines. During the 2025-2026 respiratory season, Alberta and Quebec[67] announced they would no longer cover the COVID-19 vaccine and that coverage would be limited to certain at-risk groups. As noted in section C, some provinces only provide public coverage for influenza and COVID-19 vaccines, further limiting pharmacy-based vaccination. Improving compensation for pharmacy-based vaccination could help improve vaccine coverage and address pharmacy business concerns about the cost of vaccinations.[68] Additionally, pharmacists have reported challenges with recommending vaccines that patients must pay for out of pocket or that a pharmacist cannot administer.[69] Allowing pharmacists to administer all publicly funded vaccines in all jurisdictions could improve these barriers.

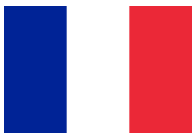
b. Lack of an integrated digital health system and national data collection system: Canada's federal government currently collects data on vaccine coverage,[70] but not all provinces participate, leading to incomplete national data and monitoring. Additionally, Canada lacks common digital health standards,[71] meaning that the access and sharing of digital health records and information varies among and within jurisdictions. A survey of pharmacists in Quebec found that lack of access to vaccination data is a main source of frustration for pharmacists who administer vaccines.[68] A comprehensive national data collection system could help inform vaccination strategies, including improving vaccine coverage and targeting specific population groups. Improving access to complete health data, including a patient's vaccine history, could help pharmacists with pharmacy-based vaccination and support overall patient health.

c. Gaps in vaccine coverage persist due to:
   - Public hesitancy and the rise of vaccine misinformation and disinformation:
     - According to a 2025 poll from Leger Healthcare,[72] vaccine hesitancy in Canada is rising. Around one-third (33%) of Canadians are not comfortable with the COVID-19 vaccine, while 28% are not comfortable with the flu vaccine. Vaccine hesitant individuals identify safety concerns (61%), misinformation from social media influencers (53%), and mistrust in government or public health (48%) as the top three reasons for vaccine hesitancy.
     - According to a 2023 report from UNICEF,[73] public perception of the importance of childhood vaccines declined 8% in Canada since the beginning of the pandemic.
     - Support such as educational tools and resources can help pharmacists address vaccine hesitancy in patients.
   - Delays in childhood vaccination emerged as a result of the COVID-19 pandemic. Routine childhood vaccinations for children were delayed especially during the early months of the pandemic and particularly for children under the age of two years.[74] In a survey of 2,036 parents in Canada conducted in January 2023, 19-25% of parents reported their child missed or delayed a routine vaccination due to the pandemic.[75] Furthermore, 34% of parents stated that improving access to routine immunisation services, such as in a pharmacy, would make it easier to catch up their child's routine vaccinations.
   - Disparities in access depending on location: In Ontario, researchers found that rural communities had fewer full-time pharmacists eligible to administer injections than urban communities (0.41 FTEs/1000 people in rural areas versus 0.58FTEs/1000 people in urban communities).[76]

Not all actively practicing pharmacists are authorised to administer drugs or vaccines by injection because pharmacists must obtain additional training requirements in most provinces. For example, in Ontario, 74.6% of pharmacists are eligible to provide injections.[76]

2.3 France

KEY SUMMARY



PHARMACY-BASED VACCINATION (PBV)

FRANCE

KEY INDICATORS

Population (Millions)	Pharmacies	Community pharmacists	Pharmacists (Total workforce)	Year PBV was established
68.6	20,202	53,693	75,080	2023

VACCINATION SERVICE DELIVERY

POLICY LANDSCAPE
Vaccination is guided by the Ministry of Health and the National Authority for Health and includes routine and campaign-based vaccines such as influenza, COVID-19, and human papillomavirus.

TRAINING
Pharmacists must complete standardised certified training (~10.5 hours), covering clinical, technical, and communication competencies.

VACCINATION RECORDS
Vaccination data is recorded in a centralised electronic system (*Dossier Pharmaceutique*) and the patient's shared national health record, ensuring traceability and continuity of care.

QUALITY ASSURANCE
Pharmacovigilance is managed by the French National Agency for the Safety of Medicines and regional centres, ensuring real-time monitoring of vaccine safety. Systems are aligned with EU pharmacovigilance standards.

ENABLERS

- Good communication and collaboration between health professionals and key stakeholders played a key role in the implementation of PBV.
- The satisfaction and demand of the public.
- Positive experiences have led to trust from the public in PBV and pharmacists.

BARRIERS

- Resistance was initially experienced from other healthcare providers, driven by concerns over pharmacists' training and scope of practice.

Case study provided by the French Chamber of Pharmacists, reflecting PBV developments up to May 2026.

Member organisation: French Chamber of Pharmacists

Indicators	
Population (millions)[11]	68.6
Population > 65 years (% total)[11]	22
Health expenditure (% GDP)[11]	11.5

2.3.1 Policy landscape

In France, the policy framework governing PBV has been significantly expanded in recent years, reflecting a broader strategy to improve vaccine accessibility and coverage. A key regulatory milestone is the Decree no. 2023-736 of 8 August 2023,[77] which formally extended the vaccination competencies of pharmacists, alongside other healthcare professionals. This decree authorises pharmacists – working in a community setting, a hospital pharmacy or a clinical biology laboratory – with adequate training to prescribe and administer vaccines included in the national vaccination schedule for eligible populations, with age eligibility varying by vaccine type. Third cycle pharmacy students can also administer these vaccines. However, they can only prescribe vaccines against the seasonal flu and COVID-19.

Within this framework, pharmacists are permitted to deliver most routine vaccines listed in the national immunisation calendar,[78] including those targeting diphtheria, tetanus, poliomyelitis, pertussis, influenza, human papillomavirus (HPV), measles, mumps, and rubella. These vaccinations can be prescribed and administered to individuals aged 11 years and older, according to national recommendations, except in specific situations such as the prescription of live vaccines in immunocompromised patients.

The same regulatory framework also defines broader eligibility for specific public health campaigns, allowing pharmacists to prescribe and administer seasonal influenza vaccines to all individuals aged 11 years and older regardless of target group status, and COVID-19 vaccines to individuals aged 5 years and older, irrespective of prioritisation criteria.

The Ministry of Health (Ministère de la Santé) is responsible for defining national vaccination policy and issuing recommendations, while the Haute Autorité de Santé (HAS) provides scientific guidance on vaccine strategies and updates to the national vaccination calendar.[78] The national vaccination schedule serves as the reference framework for both public vaccination policy and pharmacist-delivered immunisation. However, operational implementation occurs through regulated delegation to healthcare professionals, including community pharmacists, within the scope defined by national decrees and public health recommendations. It should also be noted that pharmacists are not authorised to prescribe or administer travel vaccines.

2.3.2 Workforce capacity

France has a large pharmacy network of 20,202 community pharmacies, which supports broad access to PBV delivery.[79] Approximately 53,693 registered pharmacists work in community pharmacy, with 75,080 total pharmacists in the country.[79] Workforce capacity for PBV is formally recorded at the practitioner level, as the French Chamber of Pharmacists requires each pharmacist to individually declare vaccination activity through its professional reporting system.[80] As a result, the number of active vaccinators is not centrally aggregated at national level, and effective PBV capacity depends on pharmacists who have completed training and formally registered their vaccination activity. As an example, for the influenza vaccination campaign of 2025 -2026, 67% of vaccinations were administered by pharmacists.

In addition to pharmacists, vaccination delivery capacity is extended through regulated task-sharing within pharmacies. The French framework allows trained pharmacy support staff, including advanced-stage pharmacy students and qualified pharmacy assistants, to administer certain vaccines under defined conditions and pharmacist supervision. This organisational model enhances service capacity while maintaining professional oversight and compliance with regulatory requirements.[80]

2.3.3 Training requirements

In France, pharmacists who wish to prescribe or administer vaccines in community pharmacies must complete specific education and training requirements established by national regulations. The extension of

pharmacists' vaccination competencies was reinforced by Decree No. 2023-736 of 8 August 2023,[77] which broadened the scope of vaccines that pharmacists are authorised to prescribe and administer.

To perform vaccination activities, pharmacists must either have completed training related to vaccine administration and prescription during their initial pharmacy education or undertake additional certified training delivered by an accredited training organisation. These programmes must comply with the pedagogical objectives defined by ministerial decree. Pharmacists already trained in vaccine administration are exempt from repeating this component but must still complete the prescription-specific module if they intend to prescribe vaccines.

The training framework is highly standardised. Pharmacists authorised to prescribe vaccines must complete a dedicated 10.5-hour training course[81] aligned with the requirements established in the Executive Order of 8 August 2023.[77] Training completed before this regulatory update may not be considered valid if it does not fully comply with the new educational standards.

Education focuses on both theoretical and practical competencies, including vaccine indications and contraindications, injection techniques, patient assessment, management of adverse reactions, traceability of vaccinations, and communication with patients. In addition, pharmacists must be trained in the use of digital health tools such as the shared pharmaceutical record ("DP"), the electronic medical record ("DMP"), and other national health information systems to ensure proper documentation and continuity of care.[80]

The French system also allows pharmacy residents and trained pharmacy technicians ("préparateurs en pharmacie") to participate in vaccination activities under defined conditions. Third-cycle pharmacy students may administer vaccines during supervised internships after completing the required theoretical and practical training. Similarly, trained pharmacy technicians may administer certain vaccines after completing dedicated training, although they cannot prescribe vaccines.[80]

Beyond technical competencies, vaccination training supports the expanding public health role of pharmacists in prevention and patient education. Community pharmacists are increasingly recognised as primary healthcare providers involved in prevention campaigns, health promotion, and improving vaccination coverage among the population.[82]

2.3.4 Vaccination records

Vaccination dispensing data in France are recorded and shared through a centralised electronic system known as the Dossier Pharmaceutique (DP), which enables community pharmacies to collect, store, and manage records of medicines, including vaccines. Managed by the French Chamber of Pharmacists,[83] the DP securely stores patient medication and vaccination information and is shared nationally across community pharmacies, with recent expansion to hospital pharmacists and physicians to support continuity of care across the healthcare system. Since June 2023, the DP is automatically created for patients using their Carte Vitale unless they choose to opt out, although access and data sharing remain subject to patient consent.

When pharmacists administer an authorised vaccine, they electronically record key details such as the vaccine name, batch number, and injection date in the patient's digital file. This ensures traceability and supports follow-up care. Pharmacists can also use these records to remind patients of their vaccination status and notify them when subsequent doses or booster vaccinations are due.[8]

In addition to the DP, pharmacists enter immunisation data into the patient's shared national health record, Mon espace santé (My Health Space), which allows other healthcare providers, including general practitioners and hospital-based professionals, to access updated vaccination histories. Management of records for some other vaccinations, particularly routine childhood immunisations, may also involve physicians and schools. Patients may also retain a physical record through the carnet de vaccination or carnet de santé, which pharmacists can manually update or stamp upon request, ensuring continuity of care across healthcare settings.

2.3.5 Quality monitoring system

In France, the quality, safety, and performance of pharmacy-based vaccination services are maintained through a structured pharmacovigilance system aligned with European standards, including EMA Good

Pharmacovigilance Practices.[84] Pharmacists follow standardised protocols for vaccine administration, documentation, and adverse event reporting, with compliance overseen by the French National Agency for the Safety of Medicines (ANSM) and a national network of Regional Pharmacovigilance Centres (RPVCs).[84, 85] These centres collect and assess adverse event reports from healthcare professionals and patients, ensuring traceability and adherence to safety standards.

Using COVID-19 vaccination as an example, RPVCs conducted continuous real-time monitoring of adverse drug reactions (ADRs), including daily and weekly analyses, expert reviews, and regular reporting to ANSM.[85] Weekly public reports and ongoing surveillance supported transparency, rapid detection of safety signals, and implementation of risk reduction measures. This integrated system enables timely responses to emerging risks, continuous service improvement, and the maintenance of high standards of vaccination practice across pharmacies and other healthcare settings.

2.3.6 Implementation and scale-up strategies

PBV services have evolved from an initial hybrid pre-implementation model where community pharmacies were fully integrated into the national immunisation system but did not directly administer vaccines[8] to an expanded service delivery model in which pharmacists now both prescribe and administer a broad range of vaccines.[86] Pharmacists are authorised to provide vaccination services for adults and for children aged 11 years and above (5 years old and above for COVID-19), although eligibility and scope vary depending on the specific vaccine. Vaccinations can be delivered both within dedicated consultation areas inside community pharmacies and, where permitted, in external settings for vaccination campaigns such as in schools, improving accessibility and convenience for patients.

Approaches to scale-up PBV can focus on strengthening pharmacists' role as accessible frontline vaccinators and expanding the range of vaccines delivered through pharmacies. Additional scale-up should include vaccination advocacy to further support implementation and long-term sustainability of PBV services and further expand the scope of vaccinations that pharmacists can prescribe and administer by including travel vaccinations, which would address an important public need and a public health issue.

2.3.7 Key enablers and barriers

1. Key enablers

- Good communication and collaboration between health professionals and key stakeholders play a key role in the implementation of PBV.[87]
- The satisfaction and demand of the public.
- Positive experiences have led to trust from the public in PBV and pharmacists.[87]

2. Key barriers

- Resistance was initially experienced from other healthcare providers, driven by concerns over pharmacists' training and scope of practice.[87]

2.4 Ireland

KEY SUMMARY

PHARMACY-BASED VACCINATION (PBV)

IRELAND

KEY INDICATORS

Population (Millions)	Pharmacies	Community pharmacists	Vaccines administered in pharmacies	Year PBV was established
5.4	~1,915	~5,081	1/3 (influenza and COVID-19)	2011

VACCINATION SERVICE DELIVERY

POLICY LANDSCAPE
Pharmacists in Ireland are authorised to administer multiple vaccines, including influenza and COVID-19, in both pharmacy and outreach settings.

FINANCING
Vaccination services are publicly funded for eligible groups under national programmes. Pharmacists receive reimbursement for administering these vaccines, supporting accessibility.

TRAINING
Pharmacists complete accredited training through the Pharmaceutical Society of Ireland, including CPR and emergency response.

VACCINATION RECORDS
HSE PharmaVax is a secure, online portal developed by the Health Service Executive that allows pharmacies to record details of, and claim reimbursement for, the COVID-19, influenza and pneumococcal vaccinations.

QUALITY ASSURANCE
Pharmacies must report vaccine adverse events to the Health Products Regulatory Authority (HPRA), maintain emergency protocols, and retain documentation for regulatory inspection.

ENABLERS

- **Strong policy support and established role**
  Pharmacists are well integrated into national vaccination strategies and programmes.
- **Accessible and trusted setting**
  Community pharmacies improve convenience and encourage vaccine uptake.
- **Standardised training and guidance**
  Clear national frameworks ensure safe, consistent service delivery.

BARRIERS

- Lack of a shared national Electronic Health Records (EHR) limits pharmacists' involvement in vaccination programmes.
- Some National Immunisation Advisory Committee (NIAC)-recommended vaccines are not publicly funded, requiring patients to pay privately.

Case study provided by the Irish Pharmacy Union, reflecting PBV developments up to May 2026.

Member organisation:	Irish Pharmacy Union (IPU)
Case study author:	Susan O'Donnell, Professional Services Pharmacist

Indicators	
Population (millions)[11]	5.4
Population > 65 years (% total)[11]	16
Health expenditure (% GDP)[11]	6.9

2.4.1 Policy landscape

Pharmacists in Ireland have been authorised to supply and administer the seasonal influenza vaccine and adrenaline (epinephrine) injections for the emergency treatment of anaphylactic shock that may arise from the administration of vaccines since 2011.

Additions and amendments to pharmacy and medicines legislation in the intervening period have expanded the range of vaccines that can be provided by pharmacists, the range of patients who can be vaccinated, and the locations where vaccination can occur.

The following policy changes have occurred starting from 2011:

a. The legislation S.I. No. 525/2011 - Medicinal Products (Prescription and Control of Supply) (Amendment) Regulations 2011 enables trained pharmacists to supply and administer the seasonal influenza vaccine, at registered pharmacies, without the requirement for a prescription.[88]
b. In **October 2015** the legislation was amended to permit pharmacists to supply and administer two additional vaccines: the pneumococcal polysaccharide, and herpes zoster (shingles) vaccines.[89]
c. In **July 2020** legislation was amended to permit pharmacists to supply and administer the influenza vaccine nasal spray suspension also known as Live Attenuated Influenza Vaccine (LAIV).[90]
d. In **October 2020**, legislation was amended to permit appropriately trained pharmacists to supply and administer the influenza vaccine at any suitable and appropriate place (i.e., within or offsite from the retail pharmacy business premises) having regard to public convenience and the need to protect the health and safety of the public.[90] This includes the influenza vaccine suspension for injection presented as a pre-filled syringe, and the influenza vaccine nasal spray suspension.
e. Since **December 2020**, appropriately trained pharmacists may also supply and administer COVID-19 vaccines as part of the national COVID-19 vaccination programme.[91]
f. A Health (Miscellaneous Provisions) Bill 2023, published in early 2024 allows, in the event of a public health emergency being declared, community pharmacists to administer all the primary immunisation vaccines, including MMR.[92]

Community pharmacists now administer one in every three vaccinations under the influenza and COVID-19 vaccination programmes.

Table 5 below demonstrates community pharmacies' activity within the autumn/winter vaccination programme.

Table 5: Community pharmacies' activity within the autumn/winter vaccination programme

	2022/23	2023/24	2024/25	2025/26
COVID-19				
Total COVID vaccine administration	252,760	271,401	177,603	172,673
Market share COVID-19 vaccination	25%	35%	32%	33%
Influenza				
Total QIV administration	272,355	248,360	259,652	324,708
Total LAIV administration	68,088	77,301	126,870	149,398
Market Share LAIV	45%	45%	58%	56%

Total QIV & LAIV	340,443	325,661	386,522	474,106
Total market share QIV & LAIV	29%	28%	32%	36%

2.4.2 Workforce capacity

There are currently 1,915 registered pharmacies in Ireland; 1,140 pharmacies have administered a COVID-19 vaccine, and 1,456 pharmacies have administered a flu vaccine during the most recent autumn/winter vaccination programme which took place between October 2025 and April 2026.

Pharmacists who have completed the required training are permitted, under Regulation 4B and/or 4F of the Medicinal Products (Prescription and Control of Supply) Regulations 2003 (as amended),[93] to supply and administer certain vaccines and emergency medicines listed in the Eighth and Twelfth schedules to the Regulations. These include the influenza vaccine, pneumococcal polysaccharide vaccine, herpes zoster (shingles) vaccine, and COVID-19 vaccines.

2.4.3 Training requirements

The Pharmaceutical Society of Ireland (PSI) outlines that in order to supply and administer any vaccine, pharmacists must first undertake training in the following programmes:

a. CPR for adults and children
b. Responding to an Emergency Situation and Management of Anaphylaxis (RESMA)
c. Medicines Administration (Parenteral) (PAMT)
d. Delivery of a Pharmacy-Based Vaccination Service

Pharmacists are also required to have up to date knowledge on any vaccine which is administered and can meet the training requirements in this regard by:

a. Completing the specific training modules where available; and/or
b. Reviewing or having up-to-date knowledge in the relevant national immunisation guidelines for Ireland, the Summary of Product Characteristics (SPC) for the vaccine, and Health Service Executive (HSE) guidance (where applicable).

The validity of the training programmes varies. For example, CPR and RESMA training is valid for two years, whereas PAMT training programme must be repeated in circumstances where a pharmacist has had a two-year or longer break in vaccination practice.

Pharmacists are expected to review the training requirements for the delivery of the service(s) they wish to provide each year and check that their training in each programme is up to date. There is a self-assessment and self-declaration form which pharmacists can use to reflect on their skills and competency in delivering vaccination and emergency medicine services.

The PSI carried out a review of vaccination and emergency medicines training requirements for pharmacists in 2025 which may provide some useful insights. The report on this review can be found here.[94]

Other injectables may be administered by community pharmacists. The PSI recently issued guidance in relation to pharmacists who are offering or are planning to offer services to administer injectable medicines that are supplied on foot of a prescription. This guidance can be found here.[95]

2.4.4 Financing and reimbursement

The national programmes for influenza and COVID-19 are operationalised at community pharmacy level. Those eligible to access their influenza or COVID-19 vaccine in a community pharmacy see both the vaccine and administration fee reimbursed by the state. The community pharmacy order or receive the vaccine stock for use within these national programmes free of charge from the national vaccine stock. Pharmacists are reimbursed for administration by the state. The rate of reimbursement varies depending on the vaccine type.

The individuals eligible for a vaccine as part of the national programme are based on clinical recommendations from the National Immunisation Advisory Committee (NIAC) and the operational recommendations from the National Immunisation Office (NIO).

The Community Pharmacy Agreement 2025 (CPA25)[96] formally expanded the role of community pharmacists in public Pneumococcal Polysaccharide Vaccine (PPV23) administration as part of the national immunisation programme. From 1 May 2026, community pharmacists can administer the PPV23 to healthy individuals over 65 years old who hold certain eligibility, such as a General Medical Scheme (GMS) Card, General Practitioner Visit Card (GPVC) or Health Amendment Act (HAA) Card.

These schemes allow patients to access certain aspects or all aspects of healthcare free of charge for certain individuals. To be eligible for these schemes certain criteria are in place. For these patients the reimbursement in place for the pharmacy is similar to influenza and COVID-19 vaccinations in that both the vaccine and administration is funded by the state. Where the individual is over-65 and clinically eligible but does not have GMS/GPVC/HAA eligibility, the pharmacist is permitted to vaccinate using HSE vaccine stock and the patient is charged a private fee by the pharmacy for administration of the PPV23.

All other vaccines and injectables are provided as part of a private service.

2.4.5 Vaccination records

HSE PharmaVax was introduced in April 2021 and first used to support the COVID-19 vaccination programme in community pharmacies and is now also used for influenza and pneumococcal vaccinations vaccine administration recording. Shingles vaccinations will also be brought onto this platfrom for recording purposes only. Shingles vaccinations are not currently reimbursed for any cohort in Ireland.

HSE PharmaVax is a secure, online portal developed by the HSE that allows community pharmacies to record details of, and claim reimbursement for, the COVID-19, influenza and pneumococcal vaccinations that they administer. HSE Pharmavax works as part of a broader national vaccination recording solution called COVAX which supported all vaccines administered to the public given as part of the HSE national programmes until recently.

The National Immunisation Information System (NIIS) has now replaced COVAX. NIIS is being expanded on a phased basis to include all immunisations provided by all clinicians and will serve as an integrated record of all immunisations administered. As additional functionality is incorporated into the NIIS, this will create the conditions whereby community pharmacies can expand their role in immunisation programmes.

For vaccine administration that the national registry does not support the details must be captured on the patients PMR and printed off in hard copy format as part of the daily audit log and certified as above.

All records relating to the vaccine administration must be maintained for two years onsite at the registered retail pharmacy premised so they are available for inspection.

2.4.6 Quality monitoring system

Vaccine safety monitoring and adverse event management are conducted through national pharmacovigilance systems overseen by the Health Products Regulatory Authority (HPRA). Suspected adverse reactions, including cases of anaphylaxis following vaccination, should be promptly reported to the HPRA through its pharmacovigilance reporting mechanisms, with the brand name and batch number of the vaccine included in each report. PSI guidance[97] also requires pharmacies to maintain protocols for the management of adverse events, needle-stick injuries, cold-chain incidents, and emergency situations, including the availability and administration of adrenaline for anaphylaxis management. Relevant policies and procedures must be reviewed regularly, particularly before each vaccination season, to incorporate updated guidance and lessons learned from practice. Vaccination records and audit documentation must be retained onsite and made available for inspection as part of ongoing quality assurance and regulatory oversight processes.

2.4.7 Implementation and scale-up strategies

A recent innovation within PBV in Ireland is the provision of Live Attenuated Influenza Vaccine (LAIV) as part of a school's programme.[98] LAIV was first introduced in Ireland during the autumn/winter vaccination programme 2020/21. Uptake within the recommended cohort of children aged two to 17 years remained low. It became a key public health priority to increase rates of vaccination in this population, particularly those aged two to 12 years.[99]

International evidence had shown that vaccination rates increased when LAIV was provided in a school setting. Although there were health service capacity challenges, community pharmacy had demonstrated strong performance (40%) with delivery of LAIV campaign within their retail pharmacy premises. Structures were in place which enabled community pharmacists to provide these vaccinations in an off-site location such as a school, and allowances were also provided to enable informed consent capturing in advance of vaccination.

An exception was allowed when administering a LAIV nasal influenza vaccine as part of the HSE vaccination programme in a school setting, the parent could provide informed consent prior to the vaccine being administered. The NIO facilitated community pharmacies and GP practices to link with local primary schools to provide on-site LAIV to children in other year groups where possible.

Community pharmacies recorded almost 78,000 LAIV administrations and a market share of 45% of the total LAIV nasal spray activity for the 2023/24 season. During the most recent 2025/26 season, community pharmacists recorded almost 150,000 LAIV and held a market share of 56%. Administration rates for children aged two to 17 years were 24.6% for this season compared to 16.6% in 2021/22 before the LAIV schools programme commenced.

2.4.8 Key enablers and barriers

Immunisation is one of the most effective of all public health interventions, helping people of all ages live longer and healthier lives. The tri-party agreement developed by the Department of Health, Health Service Executive and the Irish Pharmacy Union through the CPA 25 recognises and outlines the role that community pharmacy plays in the provision of vaccination.[96] This agreement has been a key enabler for the expansion of the role of community pharmacy, particularly as it concerns vaccination.

It was recognised as a national priority to increase vaccine uptake among eligible populations, with community pharmacists playing a critical role in vaccination delivery, currently administering one in every three vaccines provided through the national programmes in which they participate.

To improve the uptake of the pneumococcal polysaccharide vaccine (PPV23), community pharmacies were identified as suitable vaccination providers. As of May 2026, community pharmacies are now reimbursed to provide vaccines to healthy adults aged 65 years and above.

Community pharmacies are also expected to play an important role in future catch-up vaccination programmes as they emerge, such as HPV and MMR catch-up campaigns.

The success of the LAIV schools programme has further demonstrated the value of pharmacist involvement in vaccination delivery. In relation to school immunisation programmes, which includes routine childhood vaccines such as 4 in 1, MMR, HPV, Tdap and MenACWY vaccines, consideration is being given to expand the potential role of community pharmacies in the programme delivery to support the achievement of WHO childhood vaccination targets.

In addition, many injectable medicines and vaccines, including travel vaccines, currently require a prescription before a pharmacist can administer them. Simplifying this process to enable pharmacists to supply and administer a wider range of medicines, where clinically and therapeutically appropriate, would simplify the patient journey. This also highlights that pharmacists as vaccinators are a key provider in the context of new and emerging vaccine preventable disease.

Lack of a national shared electronic health record is at present, a barrier to involvement of pharmacists in some of the national vaccination programmes. As the NIIS and National Electronic Health Record (EHR) projects are implemented, this will create the conditions whereby community pharmacies can expand their role in immunisation programmes.

Health service funding is available for some, but not all, vaccines recommended by NIAC. As such, patients currently pay privately for certain vaccines, herpes zoster (shingles) vaccine meaning uptake is limited to those with an ability to meet out of pocket costs.

2.5 Italy

KEY SUMMARY

PHARMACY-BASED VACCINATION (PBV)

ITALY

KEY INDICATORS

Population (Millions)	Pharmacies	Community pharmacists	Pharmacies administring vaccines	Year PBV was established
59	~20,160	~100,800	~5,000	2021

VACCINATION SERVICE DELIVERY

POLICY LANDSCAPE
Pharmacist-led vaccination is now structurally embedded in Italy's healthcare system, with pharmacies recognised as official vaccination access points within the National Vaccination Prevention Plan.

FINANCING
Vaccination in pharmacies is publicly funded, with a national fee per administration and dedicated investment to support service expansion.

TRAINING
Pharmacists must complete certified training, including administration techniques, emergency response (e.g., anaphylaxis), and basic life support.

VACCINATION RECORDS
A national vaccination registry supports population-level monitoring and integration with electronic health records. However, full real-time data exchange across regions is still being implemented.

QUALITY ASSURANCE
Robust national protocols and pharmacovigilance systems ensure high standards of safety and service delivery. Local health authorities actively monitor compliance through inspections and reporting systems.

ENABLERS

- **Extensive pharmacy network and high trust**
  A dense network of pharmacies and strong public trust support broad access to vaccination services.
- **Clear regulatory framework post-COVID-19**
  National laws and agreements have formalised and stabilised the role of pharmacists in vaccination.
- **Structured training and pandemic experience**
  Standardised training and experience gained during COVID-19 support effective service delivery.

BARRIERS

- **Regional fragmentation**
  Differences in implementation, funding, and digital systems across regions.
- **Inadequate reimbursement**
  Current fees often do not cover full service costs, limiting participation, especially for smaller pharmacies.
- **Incomplete digital integration**
  Partial interoperability of data systems hinders real-time monitoring and coordination of care.

Case study provided by the Italian Pharmacy Owners Federation, reflecting PBV developments up to May 2026.

Member organisation:	Italian Pharmacy Owners Federation (FEDERFARMA)
Case study author(s):	Erminia Pietrobono; Legal and Policy Officer

Indicators	
Population (millions)[11]	59.0
Population > 65 years (% total)[11]	25
Health expenditure (% GDP)[11]	8.4

2.5.1 Policy landscape

a. General regulatory framework

PBV found its primary legal basis in Italy in Decree-Law No. 44 of April 1, 2021.[100] This provision authorised licensed pharmacists to administer vaccines as part of the COVID-19 vaccination campaign, subject to specific training.

The framework was subsequently consolidated and expanded by Decree-Law No. 24 of March 24, 2022 (converted by Decree-Law No.52 of May 19, 2022),[101] based on which a Memorandum of Understanding was signed in July 2022 between the Government, the Regions, and FEDERFARMA; the administration of COVID-19 and flu vaccines by pharmacists was confirmed as a rule, transcending the emergency dimension.

The regulatory framework is provided by Decree-Law No. 44 of October 3, 2009.153 (so-called "service pharmacy"),[102] which introduced into Italian law the possibility for contracted pharmacies to provide new healthcare services within the National Health Service (SSN), laying the foundation for a local pharmacy model highly integrated with the healthcare system.

Further regulatory developments were introduced by Decree-Law No. 182 of December 2, 2025 (so-called "Simplification Law"),[103] which strengthened the role of pharmacies in community healthcare by providing:

- simplification of authorisation procedures for the provision of healthcare services in pharmacies, including vaccination
- expansion of the activities that pharmacists can perform within the pharmacy service, with greater integration into prevention programmes
- reduction of administrative requirements for the activation of vaccination services, with standardised models at the national level.

The Decree-Law 199[104] (2026 Budget Law) further consolidated this structure, introducing structural financing measures and contributing to the full integration of vaccination in pharmacies into the territorial care of the SSN.

b. Authorised vaccines and eligible population

The Memorandum of Understanding of July 28, 2022, subsequently incorporated and consolidated by the National Collective Agreement (NCA)[105] approved by the State-Regions Conference on 9th November 2022,[106] defined the operating procedures for administering vaccines in pharmacies, prioritising influenza and COVID-19 vaccinations. It established minimum safety conditions, training requirements, and procedures for liaising with general practitioners (GPs).

Following the provisions of the 2026 Budget Law,[104] an expansion of the types of vaccines that can be administered in pharmacies is planned, based on updates to the National Vaccination Prevention Plan (PNPV) and subject to technical and scientific evaluation by Italian Medicines Agency (AIFA) and the Ministry of Health, with particular reference to vaccines for adults and the elderly for primary and secondary prevention purposes.

The categories of vaccines that can be administered in pharmacies currently include all vaccines included in the PNPV. The eligible population generally includes individuals aged 12 and over, even those receiving their first vaccination. Vaccination of minors is not currently available in the pharmaceutical context.

c. Integration into the national vaccination prevention plan

The National Vaccination Prevention Plan (PNPV) 2023-2025,[107] approved by the State-Regions Agreement[108] and adopted by Prime Ministerial Decree, explicitly recognises pharmacies as access points for vaccination as part of the strategy to expand vaccination coverage. The policy document identifies pharmacies as "additional settings" to local health authority vaccination centres and general practitioner clinics.

The involvement of pharmacies in achieving the vaccination coverage targets set by the WHO (≥95% for childhood vaccinations; ≥75% for influenza in those over 65 years old),[109] is considered one of the main tools for expanding access, thanks to their widespread distribution across the country.

d. Coverage data

Data on vaccination coverage in pharmacies are not yet collected uniformly at the national level due to the fragmentation of regional information systems. A more detailed discussion of this issue is presented in section 2.5.6 Quality .

2.5.2 Workforce capacity

As of 2025, Italy has exactly 20,160 pharmacies open to the public (of which approximately 18,390 are privately operated and approximately 1,500 are municipal), and a total of approximately 100,800 pharmacists registered with provincial professional registers, according to 2024 data from ENPAF (National Agency for Pharmacists' Welfare and Social Security).[110]

Not all pharmacists are authorised to administer vaccines; authorisation is subject to completion of the specific training programme. According to Federfarma estimates, in 2024, approximately 5,000 pharmacies were active in administering vaccines, with at least one licensed pharmacist per location.[111]

Organising vaccinations in pharmacies requires coordination with General Practitioners (GPs) and Local Health Authorities (ASL). The Memorandum of Understanding of 28th July 2022[106] establishes that the vaccinating pharmacist is required to notify the patient's primary care physician of the vaccination within 24 hours of administration. The pharmacist is also required to record the vaccination in regional information systems. This automatically feeds the patient's National Vaccination Registry (AVN) and Electronic Health Record (FSE). The ASL supervise and monitor the quality of vaccination services provided in pharmacies and are responsible for supplying vaccine doses in most regions.

2.5.3 Training requirements

The minimum training requirements for vaccination administration in pharmacies were defined by the Memorandum of Understanding of 28th July 2022, and subsequently updated by the Agreement of 9th November 2022.[106] The programme includes:

- Theoretical and practical course on administration technique: at least 8 hours, with hands-on simulation of intramuscular and subcutaneous administration.
- Training on anaphylaxis: recognition, immediate management, and use of self-injectable adrenaline (such as EpiPen).
- BLSD (Basic Life Support and Defibrillation) certification: mandatory for all pharmacies offering vaccination services; renewable every two years.
- Training on specific vaccines: characteristics, storage (cold chain), contraindications, and interactions.

Training is provided by accredited CME (Continuing Medical Education) providers, in accordance with the national professional development system. The minimum CME credit required is 50 biennial credits for pharmacists working in vaccination services.

Mandatory equipment for vaccination pharmacies includes adverse reaction management kits (adrenaline, corticosteroids, antihistamines), a blood pressure monitor, a pulse oximeter, a reclining bed/chair for post-vaccination observation lasting at least 15 minutes, and an Automated External Defibrillator (AED).

The 2025 Simplification Law[103] also introduced the option of providing part of the training in certified digital format, promoting faster dissemination of skills among pharmacists and greater regional consistency.

2.5.4 Financing and reimbursement

a. Sources of funding

PBV funding in Italy is structured on multiple levels:

1. Public funding (SSN): This is the main source for vaccines included in national campaigns. Vaccine doses (influenza, COVID-19) are purchased centrally by the Ministry of Health/AIFA or by the regions through aggregated purchasing procedures and distributed to pharmacies through ASL or authorised wholesalers.
2. Service reimbursement: Pharmacies receive a flat fee for vaccine administration, separate from the cost of the dose.
3. Patient co-payment: This is generally not available for vaccinations included in the Essential Levels of Assistance (LEA),[112] but is provided for some optional vaccines (e.g., travel vaccines).

The 2026 Budget Law[104] established a fund dedicated to strengthening pharmacy services, with a EUR 50 million allocation earmarked for in-pharmacy vaccination prevention activities, aimed at ensuring regional consistency and the economic sustainability of the service.

b. Funding mechanisms

The LEA, redefined by the Prime Ministerial Decree of 12th January 2017,[112] include vaccinations provided for by the current PNPV.[107] The pharmacy administration fee for the COVID-19 and influenza vaccination campaigns has been set, by emergency legislation and subsequent agreements, at approximately EUR 6.16 per administration, including professional services but excluding the cost of the dose.

The Decree-Law 199/2025[104] initiated a process to revise the remuneration rates for pharmaceutical services, aimed at aligning the compensation with the actual cost components of the vaccination service. The remuneration of healthcare services provided by pharmacies at NHS expense is defined through:

- National Collective Agreement (NCA): Establishes principles and criteria for remuneration within the limits of earmarked resources;[105]
- Regional Supplementary Agreements: Negotiated with Regional Unions, they define payment modalities, timing, and structural/organisational characteristics for second-level services, within the budget limits allocated to each region.[108]

Services beyond these budget limits remain at the citizen's expense. Structural reimbursement, outside of extraordinary campaigns, is negotiated within the NCA for contracted pharmacies, which define the services provided under the NHS agreement and the related remuneration. The 2009 NCA[102] and its renewals establish the framework within which PBV can be contractualised at the regional level.

There is significant regional variability. Some regions (Lombardy, Veneto, Emilia-Romagna, Tuscany) have developed more structured reimbursement systems and higher fees, while in other regions the PBV is still in its start-up phase and reimbursement is provided on an emergency or experimental basis.

c. Service cost coverage

The current reimbursement rate does not fully cover the costs of managing the vaccination service in pharmacies, which include additional staff, CME training, equipment (AED, anaphylaxis kit), cold chain management, and dedicated spaces.

The funding gap is estimated to be between EUR 2 and EUR 4 per administration, depending on the size and organisation of the pharmacy. The measures introduced by the 2026 Budget Law aim to gradually reduce the funding gap.[104]

2.5.5 Vaccination records

Italy established the National Vaccine Registry (ANV) with Decree-Law No. 73 of 7th June 2017,[112] a national vaccination registry interoperable with the FSE ecosystem. The operating procedures and content of the ANV were defined by Decree-Law No. 17 of 17th September 2018.[113] The ANV collects data from regional registries to ensure nationwide vaccination coverage monitoring.

However, the ANV's implementation is still partial. Interoperability between regional pharmaceutical information systems and the national platform is not fully guaranteed. Decree-Law No. 34/2020,[114] and subsequent ministerial decrees reforming the EHR, set goals for full interoperability by 2025/2026, but their implementation is underway with various deadlines.

In practice, pharmacies record vaccinations through:

- Dedicated regional platforms (e.g., "SiVac" in Lombardy, AUSL systems in Emilia-Romagna): direct transmission to the regional vaccination information system;
- Pharmaceutical management systems (pharmacy software): integrated with regional platforms in the most advanced settings;
- Paper-based register / email transmission to GPs: still present in some less digitalised regional settings.

The 2025 Simplification Law[103] has accelerated digital interoperability processes, requiring pharmacy information systems to be integrated with the EHR 2.0 and the ANV, through uniform technical standards defined at the national level. However, full implementation of these provisions is still in the process of being completed.

2.5.6 Quality monitoring system

The PBV quality monitoring system is based on:

a. Standardised administration protocols: Defined by State-Regional Agreements[108] and incorporated into pharmacy operating procedures.
b. Reporting of adverse reactions (pharmacovigilance): Adverse reactions to vaccines administered in pharmacies must be reported through the national pharmacovigilance network (Decree-Law No. 219/2006) [115] via the AIFA pharmacovigilance platform, with immediate notification to the competent ASL.
c. ASL inspections and controls: ASLs conduct periodic checks on vaccinating pharmacies to ensure compliance with structural, training, and safety requirements.
d. Cold chain management system: Pharmacies must comply with vaccine storage requirements.

The AIFA supervises the quality and safety of drugs (including vaccines), while ASLs are responsible for operational monitoring at the local level.

2.5.7 Implementation and scale-up strategies

a. Organisation of the service in the pharmacy

PBV administration in Italy is organised as follows:

- Dedicated spaces: Each vaccination pharmacy must have a dedicated room (or visually and acoustically separated area) for administration and post-vaccination observation, compliant with the minimum requirements defined by the State-Regional Agreements.[108]
- Preventive appointment: Vaccination is by appointment, generally through a regional platform or dedicated portal (e.g., *Prenota Vaccino*), with the patient's pre-vaccination medical history completed.
- Medical history and informed consent: The pharmacist administers a standardised questionnaire to assess contraindications and obtains informed consent, which is stored at the pharmacy and transmitted to the regional system.
- Post-vaccination observation: A minimum of 15 minutes in the pharmacy, with the availability of a kit for managing anaphylactic reactions and an AED.

b. Scale-up path

PBV in Italy has evolved rapidly due to the COVID-19 emergency:

- March-April 2021: First authorisation for pharmacists (Legislative Decree 44/2021[100]), trial launch in the most prepared regions (Lombardy, Emilia-Romagna, Piedmont).
- Summer-Autumn 2021: Progressive extension of COVID-19 vaccination to all regions; first integration with the regional booking system.

- 2022-23 flu season: Launch of flu vaccination in pharmacies in 12 regions, based on the regional agreements implementing the State-Regions Agreement.[105]
- 2023-2024: Consolidation of the model; extension to new vaccine types in some regions; integration with the ESF; launch of pilot projects for pneumococcal vaccines.
- 2025-2026: Review of the PNPV and the Essential Levels of Assistance (LEA)[112] underway for the full structural integration of pneumococcal vaccines as a standard service within the SSN.
- 2026: Structural strengthening of pneumococcal vaccines within the scope of local healthcare, also in implementation of the 2026 Budget Law.[104]

c. Recent innovations

Among the most significant innovations:

- Structural Stabilisation (2026 Budget Law): The 2026 Budget Law marked the end of the experimental phase, transforming the pharmacy service into a permanent structural resource of the SSN. This ensures continuity of funding for vaccinations and diagnostic services.[104]
- Expansion of the Vaccination Panel (Law 182/2025): With the "Simplification Decree" (Law 182/2025), the right to administer vaccines has been extended to all vaccines included in the PNPV for individuals aged 12 and over.[103, 107]
- First-Level Diagnostics and Screening (from 2026): Starting in January 2026, a wider range of tests will be authorised for in-pharmacy use, including first-level oncology screening (e.g., colorectal) and rapid diagnostic tests for chronic conditions, with nationally standardised accreditation procedures.
- Digitalisation and EHR 2.0: Integration with the EHR 2.0 has become fully operational, enabling real-time vaccination registration and automatic generation of the digital certificate, ensuring full interoperability between pharmacies and attending physicians.
- Chronic condition management: Patients with chronic conditions can now use a digital prescription for up to 12 months, with the pharmacist taking an active role in monitoring adherence and providing professional counselling.

These interventions aim to decongest local health authority vaccination hubs and medical practices, bringing prevention directly to the community.

2.5.8 Key enablers and barriers

a. Key enablers

1. Capillary pharmacy network: Over 20,000 pharmacies guarantee unparalleled territorial coverage, with a pharmacy within 500 meters of 90% of Italian municipalities.[110]
2. Clear post-COVID regulatory framework: Decree-Laws 76/2021[106] and 197/2022[116] have provided legal certainty and overcome the emergency nature of the service.
3. High citizen trust in pharmacies: Eurobarometer surveys place pharmacies among the health services with the highest trust rate (>85%) in Italy.[117]
4. Structured CME training: The CME system ensures the continuous updating of pharmacists and the standardisation of skills.
5. COVID-19 experience: The pandemic has accelerated the adoption of PBV and created organisational skills in pharmacies.
6. Pharmacy of services (Decree-Law 153/2009): Provides the regulatory framework for the progressive expansion of health services in pharmacies.[102]
7. Recent regulatory interventions (Simplification law and law of 2026 budget): Consolidate and make the role of the pharmacy in prevention services structural.[103, 104]

b. Key barriers

1. Regional fragmentation: Responsibility for healthcare is predominantly regional (Article 117 of the Constitution),[118] resulting in significant regional differences in the implementation, reimbursement, and digitalisation of the PBV.
2. Inadequate reimbursement: The administration fee does not fully cover the costs of the service, discouraging smaller pharmacies.

3. Incomplete digitalisation: Interoperability between pharmacy management systems and regional/national vaccination registries is still partial, making real-time monitoring of coverage difficult.
4. Resistance from some professional categories: Part of the general practitioner community has expressed concerns about vaccination in pharmacies, in terms of professional competence and interference with the doctor-patient relationship.
5. Cold chain: The logistical management of temperature-sensitive vaccines requires investment in certified refrigeration equipment, which is not always accessible to smaller pharmacies,
6. Lack of public information: The public's lack of awareness of the possibility of vaccination in pharmacies limits spontaneous demand.

2.6 Portugal

KEY SUMMARY

PHARMACY-BASED VACCINATION (PBV)

PORTUGAL

KEY INDICATORS

Population (Millions)	Pharmacies	Community pharmacists	Pharmacies administering vaccines (%)	Year PBV was established
10.7	~2,500	~11,000	+80	2007

VACCINATION SERVICE DELIVERY

POLICY LANDSCAPE
Vaccination in pharmacies is fully embedded in national health information systems, and despite the absence of prescribing authority, public funding and campaigns enable pharmacies to operate as key vaccination providers.

FINANCING
Vaccination in pharmacies is publicly funded for national campaigns, with a fixed remuneration per vaccine administered (EUR 3).

TRAINING
Pharmacists must complete a mandatory certification pathway comprising 20 hours of theoretical e-learning, 8 hours of practical training, and at least 4 hours of basic life support certification.

VACCINATION RECORDS
Vaccinations are recorded in the national electronic registry (VACINAS), enabling real-time updates and coordination with the NHS.

QUALITY ASSURANCE
Quality and safety are governed by the Portuguese government agency (INFARMED) standards and protocols, which define requirements for facilities, equipment, cold chain management, and professional training.

ENABLERS

- **Early legal framework and strong policy integration**
  Long-standing legislation and full inclusion in national vaccination campaigns support system maturity.
- **High workforce capacity and structured training**
- **Strong digital infrastructure and public trust**
  Real-time data systems and high trust in pharmacies support efficient implementation and uptake.

BARRIERS

- **Limited access to full vaccination history**
  Pharmacists cannot access complete patient vaccination records, restricting clinical decision-making.
- **Low reimbursement levels**
  Fixed fees may not fully cover service delivery costs.
- **Restricted prescribing authority**
  Pharmacists cannot prescribe vaccines, limiting flexibility outside national programmes.

Case study provided by the National Association of Pharmacies, reflecting PBV developments up to May 2026.

Member organisation:	National Association of Pharmacies (ANF)
Case study author(s):	• Mariana Medeiros; Policy and Institutional Affairs Manager • Paula Teixeira; Scientific Information Manager, Center for Medicines Information and Health Interventions (CEDIME) • Teresa Almeida; Board Member • Ema Paulino; President

Indicators	
Population (millions)[11]	10.7
Population > 65 years (% total)[11]	25
Health expenditure (% GDP)[11]	10.2

2.6.1 Policy landscape

PBV in Portugal is established within a clear national legislative and regulatory framework and has evolved progressively over nearly two decades. The legal foundation dates back to 2007[119] when reforms expanded the scope of services provided by community pharmacies to include medicines administration and, explicitly, vaccine administration. From 2008 onwards, pharmacies have been authorised to administer all vaccines not included in the National Vaccination Programme (PNV), marking Portugal as one of the earliest European countries to adopt this model.

A major policy shift occurred in 2023, when community pharmacies were formally integrated into the National Seasonal Vaccination Campaign,[120] allowing them to administer influenza and COVID-19 vaccines under the same conditions as National Health Service (SNS) providers. These vaccines are provided free of charge to eligible populations, with eligibility criteria defined annually by the Directorate-General of Health (DGS). Pharmacies validate eligibility electronically through systems managed by the Shared Services of the Ministry of Health (SPMS).

Pharmacists do not have prescribing authority for vaccines as prescriptions remain the responsibility of physicians. However, this limitation has not prevented large-scale delivery, as seasonal campaigns and public funding mechanisms allow vaccination without individual prescriptions for defined target groups.

Vaccination activity in pharmacies is fully embedded in national health information systems. Pharmacies can consult some vaccination records and register administered vaccines in the electronic vaccination bulletin, ensuring continuity of care, traceability, and alignment with national immunisation strategies. By the 2025/26 seasonal campaign, pharmacies had consolidated their role as core vaccination providers.

2.6.2 Workforce capacity

Portugal has built a large, skilled and highly regulated pharmacy workforce capable of delivering vaccination services at scale and with consistency across the country. This workforce capacity has been deliberately developed through structured training, professional certification, infrastructure requirements and progressive policy integration.[121]

a. Workforce size and service capacity

Of 11,000 community pharmacists in Portugal working across more than 2,500 community pharmacies, there are approximately 7,700 pharmacists qualified to administer vaccines, representing over 80% of all pharmacies nationwide. This broad territorial coverage allows pharmacies to function as vaccination points in urban, semi-urban and rural areas, significantly increasing system reach and resilience.

Pharmacies operate as high-volume service providers. Over successive seasonal campaigns, they have demonstrated the capacity to administer millions of vaccine doses, particularly to older adults, often absorbing demand that would otherwise fall exclusively on primary healthcare centres.

b. Authorised professionals

Vaccination in community pharmacies may be performed by:

- Pharmacists who are formally certified by the Portuguese Pharmaceutical Society; the regulatory framework places responsibility for professional competence and standards on the Portuguese Pharmaceutical Society, ensuring uniformity nationwide.
- Nurses, when specifically hired by pharmacies for vaccination activities.

2.6.3 Training requirements

a. Initial training and certification requirements

Pharmacists must complete a mandatory certification pathway before administering vaccines. This includes:

- 20 hours of theoretical training, delivered through e-learning, with a final examination;
- 8 hours of face-to-face practical training, focused on vaccination techniques and simulated clinical scenarios;
- Basic Life Support certification, or equivalent (minimum 4 hours), mandatory for all immunising pharmacists.

Training content is comprehensive and standardised, covering:

- Fundamental immunology and vaccine-preventable diseases;
- Vaccine characteristics, storage requirements and cold-chain management;
- Injectable medicines administration techniques;
- National legislation, ethical responsibilities and good practice;
- Identification, management and reporting of adverse events, including anaphylaxis.

c. Recertification and continuous competence

Authorisation to vaccinate is not permanent. Pharmacists must:

- Undergo recertification every five years, consisting of at least 10 hours of e-learning with final assessment;
- Provide evidence of continued vaccination activity;
- Maintain valid Basic Life Support certification.

All pharmacists who, as of 1st September 2026, have their competence active will no longer be required to undergo recertification.

This model ensures that vaccination competencies remain current and aligned with evolving scientific evidence, safety standards and national immunisation guidelines.

d. Infrastructure and operational requirements

Pharmacies providing vaccination services must comply with defined infrastructural and safety requirements, including:

- A dedicated and appropriate consultation space ensuring privacy and infection control;
- Availability of mandatory vaccination materials and consumables;
- Immediate access to emergency equipment and medicines for the management of anaphylactic reactions, such as epinephrine and oxygen.

Compliance with these requirements is a precondition for service provision and is monitored through regulatory oversight.

e. Integration into undergraduate education

To reinforce long-term sustainability, vaccination training is now incorporated into the Integrated Master's Degree in Pharmaceutical Sciences (MICF). This reform allows future pharmacists to graduate with vaccination competencies already acquired, reducing reliance on post-graduate certification and strengthening workforce readiness for future public health needs.

In just over 10 years, the number of qualified pharmacists is expected to double, rising from 7,700 qualified pharmacists to 15,400.

2.6.4 Financing and reimbursement

PBV in Portugal operates under a hybrid financing model, combining public funding for nationally prioritised vaccination campaigns with private payment mechanisms for vaccines outside the National Vaccination Programme (PNV). This model reflects both public health objectives and the broader organisation of pharmaceutical services within the National Health Service (SNS).

a. Public funding for national seasonal campaigns

Since 2023, community pharmacies have been formally integrated into the National Seasonal Vaccination Campaign for influenza and COVID-19. Under this framework, vaccines are centrally procured and supplied by the SNS and are administered free of charge to eligible population groups, as defined annually by the Directorate General of Health (DGS). In recent campaigns, eligibility has focused primarily on adults aged 60 to 84 years, with adjustments reflecting epidemiological priorities and vaccine availability.

Pharmacies are reimbursed by the SNS through a fee for service model, receiving a fixed remuneration per vaccine administered. For the 2024/25 and 2025/26 campaigns, this fee has been set at EUR 3.00 per administration for both influenza and COVID-19 vaccines. The remuneration is identical regardless of patient risk group or geographic location and is intended to partially compensate pharmacies for professional time, infrastructure, consumables and administrative tasks associated with vaccination delivery.[122]

This reimbursement mechanism represents a significant policy development, as earlier pharmacy participation in vaccination relied largely on patient payment or non-remunerated pilot arrangements. Public reimbursement has been repeatedly identified as a key factor in achieving near universal pharmacy participation in seasonal campaigns.

b. Vaccines outside the National Vaccination Programme

For vaccines not included in the PNV, financing follows a different logic. Access to public co-payment requires a medical prescription, and reimbursement rates vary depending on the vaccine and indication. Importantly, the act of vaccine administration itself is not publicly reimbursed in these cases.

As a result, patients must pay the pharmacy's administration fee out of pocket. Each pharmacy is free to set its own service fee, which averages approximately EUR 2 per administration nationwide. While modest, this additional cost can represent a barrier to uptake, particularly for adult vaccines where awareness and perceived urgency may already be limited.

c. Structural challenges of the funding model

Despite its strengths, the Portuguese PBV financing model presents several structural challenges:

- Annual renegotiation of fees for seasonal campaigns creates uncertainty for pharmacies and limits long term planning.
- Centralised vaccine procurement restricts pharmacies' autonomy, making them dependent on government allocations that may not always align with local demand.
- The existence of financial asymmetry between vaccination delivered in SNS facilities (fully funded) and vaccination delivered in pharmacies outside national campaigns may contribute to unequal patient choice.
- Additional incentive mechanisms linked to vaccine wastage reduction may inadvertently discourage opportunistic vaccination when demand is unpredictable.[122]

Overall, while the funding model has proven effective for seasonal campaigns, it remains less supportive of year-round adult immunisation delivered through pharmacies.

2.6.5 Vaccination records

Vaccination data generated through PBV services are recorded in the National Electronic Vaccination Registry and Management Platform (VACINAS). Pharmacists are authorised to both consult and register administered vaccines, ensuring that vaccination histories are updated in real time and accessible to other healthcare providers within the National Health Service.[123, 124]

Data sharing between pharmacies and public authorities is enabled through SPMS, allowing verification of eligibility, monitoring of coverage, and coordination with national vaccination strategies. This integration supports continuity of care and avoids duplication of vaccination.[123, 124]

Community pharmacies are connected to the national electronic vaccination bulletin, managed by SPMS and integrated within the SNS patient health data platform. Pharmacists are required to register all administered vaccines in real time, ensuring immediate visibility across the healthcare system.[123, 124]

Pharmacies can:

- Validate patient eligibility for publicly funded vaccination;
- Consult records of influenza and COVID-19 vaccinations
- Access information on the most recent vaccine administered to the patient.

At present, pharmacies do not have access to the full lifetime vaccination history recorded in the electronic health record. This limitation has been identified by professional bodies as a constraint on clinical decision making and continuity of care, particularly for adult and life course immunisation strategies.

2.6.6 Quality monitoring system

Quality and safety are governed by INFARMED standards and protocols, which define requirements for facilities, equipment, cold chain management, and professional training. Pharmacists are trained to identify and manage adverse events following immunisation, with reporting mechanisms aligned with national pharmacovigilance systems. Performance is monitored primarily through campaign evaluations, coverage data, and compliance with regulatory requirements rather than through pharmacy specific audit schemes.

2.6.7 Implementation and scale-up strategies

PBV services in Portugal are delivered within community pharmacies as scheduled or walk-in services, depending on campaign organisation. Pharmacies participating in national campaigns must meet predefined infrastructural and professional requirements and are supplied with vaccines through centralised NHS logistics supported by pharmaceutical distributors.

Scale-up has been achieved primarily through integration into national influenza and COVID-19 campaigns, with voluntary participation by pharmacies. The inclusion of pharmacies increased the number of vaccination points by more than 400% compared to previous years and significantly reduced travel distance for users.

Recent policy developments supporting implementation include NHS reimbursement for pharmacy administration services, access to the national vaccination registry, and centralised logistics for vaccine distribution. These measures have facilitated rapid expansion while maintaining alignment with national public health objectives.[125]

a. Organisation of services within pharmacies

Vaccination services are delivered in dedicated consultation areas within pharmacies, typically by appointment or walk-ins, depending on campaign design. Pharmacies play an active role in:

- Identifying eligible patients;
- Communicating campaign objectives;
- Encouraging adherence to vaccination schedules;

- Managing appointments flow during peak demand periods.

b. Scale-up dynamics

Scale-up has been driven by three mutually reinforcing factors:

- Territorial coverage, with pharmacies evenly distributed across the country;
- Digital interoperability, enabling seamless integration with SNS systems;
- Public trust and preference, particularly among older adults.

By the 2023/24 campaign, pharmacies accounted for approximately 70% of all influenza and COVID-19 vaccinations administered to eligible adults. The number of vaccination points increased more than four-fold with the inclusion of pharmacies, reducing average travel distance to vaccination sites by approximately 50% and contributing to measurable improvements in coverage in municipalities with the greatest proximity gains.

2.6.8 Key enablers and barriers

a. Key enablers

Several factors have consistently supported PBV implementation in Portugal:

1. Early legislative authorisation, providing legal certainty and professional legitimacy;
2. Robust training and certification systems, ensuring patient safety and confidence;
3. Digital infrastructure, enabling real-time data sharing and system integration;
4. Public reimbursement for seasonal campaigns, supporting sustainability and scale;
5. High levels of public trust in community pharmacies as accessible healthcare providers.

b. Key barriers

At the same time, important barriers remain:

1. Incomplete access to vaccination histories limits pharmacists' ability to support life-course immunisation strategies;
2. Vaccine supply constraints can affect service continuity during peak periods;
3. Vaccine hesitancy, particularly among adults, places additional demands on counselling and communication;
4. Unequal financial conditions between SNS and pharmacy-based vaccination may restrict patient choice outside national campaigns;
5. Limited scope of practice, notably the absence of prescribing authority, constrains further service expansion.

2.7 United Kingdom

The United Kingdom (UK) comprises England, Wales, Scotland, and Northern Ireland.

KEY SUMMARY

PHARMACY-BASED VACCINATION (PBV)

UK

KEY INDICATORS	England	Scotland	Wales	Northern Ireland
Pharmacies	~12,000	~1,250	~690	~500
Community pharmacists	~27,711	Not centrally reported	Not centrally reported	Not centrally reported
Pharmacy share of vaccine delivery	High	Low	Moderate	Moderate

VACCINATION SERVICE DELIVERY

POLICY LANDSCAPE
Pharmacy-based vaccination in the UK is regulated under the Human Medicines Regulations 2012 and integrated into National Health Services (NHS) immunisation programmes across all four nations.

FINANCING
PBV is publicly funded through NHS commissioning, with pharmacies reimbursed per vaccination or via blended funding models depending on the nation.

TRAINING
Pharmacists must be registered with the General Pharmaceutical Council and complete nationally standardised immunisation training aligned with UK Health Security Agency (UKHSA) frameworks.

VACCINATION RECORDS
Vaccination data is captured through national systems (e.g., National Immunisation Management System in England, Welsh Immunisation System in Wales, Vaccine Management Tool in Scotland, and Vaccine Management System in Northern Ireland).

QUALITY ASSURANCE
Quality assurance is ensured through UKHSA standards, Patient Group Direction (PGD) governance, and MHRA Yellow Card reporting.

ENABLERS

- **Strong NHS integration and commissioning systems**
  PBV is embedded in national immunisation programmes with structured NHS funding and governance.
- **Large, accessible pharmacy network**
- **Expanding prescribing rights and workforce flexibility**

BARRIERS

- **Variation across four nations**
  Differences in commissioning, delivery models, and system infrastructure create unequal implementation.
- **Workforce and capacity constraints**
  High demand places pressure on pharmacy staffing, training capacity, and infrastructure.

Case study provided by the Royal College of Pharmacy and the Pharmacists' Defence Association, reflecting PBV developments up to May 2026.

Member organisations:	Royal College of Pharmacy (Great Britan)	The Pharmacists' Defence Association (Great Britain and Northern Ireland)
Case study authors:	• Fiona McIntyre; Policy & Practice Lead • Alwyn Fortune; Pharmacy Policy and Engagement Lead • Heidi Wright; Policy and practice Lead	• Mark Koziol; Chairman • Martin Astbury; NHS Pharmacist • Alison Jones; Director of Policy and Communications • Maurice Hickey; Head of Policy • Bharat Nathwani; Member of the Advisory Board

Indicators	
Population (millions)[11]	69.2
Population > 65 years (% total)[11]	19
Health expenditure (% GDP)[11]	11.1

2.7.1 Policy landscape

Pharmacy-based vaccination (PBV) is legislatively governed by the Human Medicines Regulations 2012 (HMR) and supported by associated national frameworks in England, Wales, Scotland and Northern Ireland.

PBV is an established and regulated component of immunisation delivery across England, Wales, Scotland, and Northern Ireland, operating within NHS commissioning frameworks and national immunisation policies,[126-129] informed by the Joint Committee on Vaccination and Immunisation (JCVI).[130] Community pharmacies in England, Scotland and Wales are regulated by the General Pharmaceutical Council (GPhC), while pharmacies and pharmacists in Northern Ireland are regulated by the Pharmaceutical Society of Northern Ireland (PSNI). Pharmacies across all four nations provide vaccination services when commissioned by NHS bodies (NHS England, NHS Wales Health Boards, NHS Scotland Boards, and Health and Social Care Northern Ireland) or under private provision. Vaccines are administered either under Patient Group Directions (PGDs) or, increasingly, by independent prescribing pharmacists, depending on the programme and jurisdiction.

Pharmacists in all four nations are authorised to administer vaccines under PGDs, a legal mechanism that allows supply and administration of medicines without individual prescriptions, subject to strict eligibility and exclusion criteria. Legislative changes introduced in 2024 amended the Human Medicines Regulations 2012 to allow registered pharmacy technicians in England, Scotland and Wales to supply and administer medicines under PGDs,[131] expanding workforce capacity, although implementation varies by programme and commissioner. In Northern Ireland, pharmacy technicians are not currently permitted to administer vaccines under PGDs, as pharmacy technicians are not yet registered with the PSNI, representing a structural divergence from the other three nations.

Independent prescribing rights for pharmacists are expanding. From 2026, all newly qualified pharmacists registering with the GPhC in England, Scotland and Wales will qualify as independent prescribers,[132] enabling them to prescribe and administer vaccines within their competence without reliance on PGDs. In Northern Ireland, the PSNI has similarly introduced provisions enabling pharmacists to register as independent prescribers following amendments to PSNI regulations in 2025, though the implementation pathway remains subject to the separate regulatory framework of the PSNI. At present, PGDs remain the predominant operational mechanism for vaccination in community pharmacy because of their simplicity and consistency across large programmes.

Community pharmacies deliver a mixed portfolio of nationally commissioned, locally commissioned and private vaccines.

1. **Nationally commissioned vaccines vary by nation:**[133-139]
   a. Seasonal influenza: Universally commissioned in community pharmacy in England, Scotland, Wales, and Northern Ireland, and delivered at scale annually.
   b. In Wales, community pharmacies are part of the annual influenza vaccination service, with patients able to book an appointment and access a vaccination through their community pharmacy, which is then recorded on a national reporting portal to update a patient's vaccination status.

c. In England, a pilot one-season Advanced Service allowed community pharmacies to deliver Live Attenuated Influenza Vaccine (LAIV) nasal spray to all children aged two and three years from 1st October 2025 to 31st March 2026.
d. COVID-19: commissioned nationally in England, with community pharmacy forming part of the routine "business as usual" model post-pandemic. Pharmacies now offer co-administration of COVID-19 and flu vaccinations in England.
e. In England, with the commissioner's consent, flu and COVID-19 vaccinations can be delivered outwith the pharmacy, such as in the patient's home or a care home.
f. In Northern Ireland, pharmacies contribute to the delivery of influenza, COVID-19 and selected adult vaccines such as shingles and RSV. Northern Ireland pharmacies have a particularly strong focus on vulnerable adults and care home populations. Eligible cohorts are defined centrally by the Department of Health, and delivery is coordinated through regional vaccination programmes, across pharmacies, doctor practices and Health and Social Care Trusts.

2. Locally commissioned or pilot programmes

MMR, RSV,[140, 141] polio boosters, and targeted catch-up programmes have been commissioned in specific regions in response to outbreaks or coverage gaps, particularly in England. The recent NHS England Cancer Plan commits to mop-up HPV vaccination to eradicate cervical cancer.[142, 143]

Scotland and Wales make more limited but growing use of community pharmacy for NHS vaccination. Since a change to the General Medical Services contract in 2018, Scotland still relies more heavily on NHS immunisation centres for childhood, winter and other targeted programmes following the Vaccine Transformation Programme.[144]

Northern Ireland similarly relies more heavily on GP practices and Health and Social Care Trust immunisation services for scheduled programmes, with community pharmacy playing a more limited but coordinated role in locally commissioned vaccination.

3. Private provision

Around 80% of community pharmacies offer private vaccination services, including travel vaccines (hepatitis A, typhoid, cholera, polio/diptheria/tetanus), shingles, pneumococcal, HPV, chickenpox, meningitis, flu and COVID-19 vaccination, often to wider age cohorts than NHS eligibility. Reports of members of the public who are eligible for a vaccine on the NHS but choose to access through community pharmacy provision demonstrates the confidence in community pharmacy to deliver preventative healthcare.

Eligibility is defined by national immunisation policy and specified within PGDs or prescribing protocols. Typical NHS-commissioned cohorts include:

- Older adults (e.g., influenza, shingles, pneumococcal)
- Clinically at-risk individuals
- Pregnant women (e.g., influenza, RSV in some areas)
- Targeted age groups during outbreak responses (e.g., MMR catch-up for children and adults).

PBV is formally integrated into national vaccination strategies across all four nations of the United Kingdom, with pharmacies playing an established role in England, Scotland, Wales and Northern Ireland, albeit with differing degrees of scale, commissioning structure and operational integration reflecting the devolved health systems of each nation.[126, 128, 129] Pharmacies increasingly use national digital infrastructures such as the NHS National Booking Service in England, Vaccine Management Tool in Scotland, Welsh Immunisation System in Wales, and the Vaccine Management System (VMS) in Northern Ireland.

Data on doses delivered can be accessed through published data on the UK Health Security Agency, Public Health Agency Northern Ireland, Public Health Wales and Public Health Scotland websites.[145-147]

The regulatory status of PBV across England, Scotland, Wales, and Northern Ireland is summarised in the comparator Table 6 below, which highlights key features of policy and regulatory frameworks across the four nations.

Table 6: Comparator table for PBV regulatory status in the UK

Feature	England	Scotland	Wales	Northern Ireland
Legal authority	PGD, PSD, VGD, prescribing	Same	Same	Same
Pharmacists vaccinate	Yes (fully established)	Yes	Yes	Yes
Pharmacy technicians vaccinate	Enabled under PGDs	Enabled	Enabled	Not allowed under PGDs
Prescribing role	Expanding (IP pharmacists)	Present	Present	Present
Vaccines provided	Flu, COVID-19, RSV, pilots (HPV/MMR)	Flu, COVID-19 (+ others via Boards)	Flu, COVID-19	Flu, COVID-19 (+ programme-specific)
Eligible populations	Adults, risk groups, expanding cohorts	Centrally defined	Centrally defined	Centrally defined
Integration into National Immunisation Programs	Full integration	Integrated via Boards	Fully integrated via WIS	Fully integrated via central programmes
Pharmacy share of delivery	High (e.g., 33% flu; ~45% COVID-19)	Low	Moderate	Moderate
Delivery model	High-volume, distributed	NHS Board-led	Integrated system	Programme-based

2.7.2 Workforce capacity

Across the United Kingdom, there are large numbers of trained and accessible healthcare professionals in pharmacies delivering PBV. Access to workforce data varies across the four nations.

In Scotland, the vast majority of vaccination delivery is provided in immunisation centres managed by one of the 14 territorial Health Boards in Scotland. There is no published data describing the number of authorised pharmacists involved in vaccination, or in the number of participating pharmacies. There are over 1,250 community pharmacies in Scotland.[148]

There are approximately 690 community pharmacies in Wales.[149] Over 95% of pharmacies provided flu vaccination in 2024/5 under the Directed National Clinical Service.

In England, data from the 2024/5 season showed that over 9000 community pharmacies in England participated in the NHS flu vaccination programme, administering over 4 million vaccinations.[150, 151]

In Northern Ireland, there are approximately 500 community pharmacies. Published data on the number of pharmacies participating in NHS vaccination programmes and doses administered specifically through community pharmacy remains limited, though delivery is targeted and highly coordinated through central commissioning.

Table 7 below shows data trends of the total pharmacies, total pharmacists registered (rather than the number that work in community) and vaccination activity (doses delivered).

Table 7: Comparator table for workforce capacity in the UK

Metric	England	Scotland	Wales	Northern Ireland
Community pharmacies	~12,000[152]	~1250	~690	~500
Pharmacist workforce (community)	~27,711[153]	The information is not specifically collected	Not centrally reported	Not centrally reported

Metric	England	Scotland	Wales	Northern Ireland
Vaccination delivery role	Core high-volume provider	Supplementary to NHS Boards	Expanding role	Core provider within central programmes
Scale of participation	High (national programmes widely delivered through pharmacy)	Low	Moderate and growing	Targeted but highly coordinated
Workforce deployment model	Distributed, high-volume, community access	NHS Board-controlled	Mixed	Central commissioning

2.7.3 Training requirements

All pharmacists and pharmacy technicians must be registered with the GPhC and meet the standards for pharmacy professionals.[154] In addition, they must undergo vaccination training which meets the standards published by the UK Health Security Agency (UKHSA) National Minimum Standards and Core Curriculum for Immunisation Training.[155] Training is coordinated through the statutory education bodies in England, Wales and Scotland (NHS England, HEIW, PSDS) and must include core immunisation competencies such as anaphylaxis management, vaccine safety, and cold chain maintenance. In Northern Ireland, training is coordinated through the Northern Ireland Centre for Pharmacy Learning and Development.

Pharmacists must first complete foundation immunisation training covering immunology, vaccine-preventable diseases, national immunisation schedules, legal frameworks (including PGDs, PSDs, and consent), and practical administration skills. This is followed by supervised clinical practice and competency assessment before independent vaccination, although in practice supervised practice opportunities may be limited in some settings. Ongoing continuing professional development (CPD) is required, including annual updates and additional training when new vaccines or programme changes are introduced.

At practice level, pharmacists must be formally authorised under relevant legal mechanisms, maintain clinical governance standards (including documentation, audit, incident reporting, and cold chain records), and demonstrate effective consultation skills. The Pharmacists' Defence Association (PDA) also contributes to professional support by sharing information on vaccination-related adverse events and providing risk management materials based on compensation claims experience.

Overall, this structured training and governance framework ensures pharmacists are competent, supported, and able to deliver vaccination services safely and consistently across the UK.

2.7.4 Financing and reimbursement

Government/NHS funding is the principal source for NHS commissioned vaccinations delivered by community pharmacy. Funding is agreed through the community pharmacy negotiators (Community Pharmacy Scotland, Community Pharmacy England, Community Pharmacy Wales, and Community Pharmacy Northern Ireland) with the devolved national governments through the community pharmacy contract.[156, 157] This ensures that nationally commissioned vaccination programmes remain publicly funded and free at the point of delivery, with reimbursement provided to pharmacies for eligible activity.

Across Great Britain (England, Scotland and Wales), pharmacies are typically reimbursed through a combination of vaccine reimbursement (where applicable) and a fixed "item of service" fee per vaccination administered, as defined within national service specifications. England operates the most activity-based model, with per-dose payments and centrally defined tariffs for programmes such as influenza and COVID-19 vaccination. Scotland uses a more blended approach combining block funding, global pharmacy allocations, and locally negotiated payments, with examples of per-vaccination payments supplemented by participation fees for specific outreach initiatives. Wales applies a centrally funded model with structured item-of-service payments under the Primary Care Contractor Service framework, supported by monthly claims and audit verification.

Northern Ireland operates a more centralised commissioning and funding system, with vaccination services funded through the Department of Health via the Strategic Planning and Performance Group (SPPG). Pharmacy vaccination funding is embedded within broader primary care and pharmacy contractual budgets,

rather than consistently published per-dose tariffs. Vaccination services are delivered through centrally agreed contracts and programme-specific funding streams (e.g., influenza, COVID-19, care home vaccination programmes), with an annual pharmacy funding envelope exceeding GBP 112 million (~ EUR 130 million). While this supports coordinated regional delivery aligned with public health priorities, it provides less transparency on individual vaccination reimbursement rates compared with Great Britain.

Alongside NHS funding, pharmacies also provide privately funded vaccination services, particularly for travel vaccines and non-NHS eligible vaccines. These operate on a direct patient payment model covering both vaccine supply and administration. There is no routine role for health insurance in vaccination financing in Great Britain, although some individuals may access private insurance coverage or choose private pharmacy provision even when eligible for NHS vaccination. This dual public–private model enables pharmacies to support both national immunisation priorities and additional preventive health demand.

2.7.5 Vaccination records

In Scotland, Public Services Delivery Scotland is responsible for the single national data repository for vaccinations. Public Health Scotland use the data in the National Clinical Data Store for management purposes and regularly publish data. The data recorded include the location of premises where the vaccine was administered. Health care professionals involved in immunisation can view and record in the Vaccination Management Tool hosted on a national platform.

In Wales, Public Health Wales collects vaccination data through integrated national systems overseen by Digital Health and Care Wales. Community pharmacy teams use the all-Wales Immunisation System to record when a patient has been vaccinated. The WIS supports the real time recording of vaccinations, integrated eligibility, scheduling, and is integrated with wider data repositories and clinical portals. The collected data is shared with the Health Boards and Welsh Government. It enables interoperability as well as public health surveillance and planning functions.[158]

In England, vaccination data is recorded in GP systems or in the National Immunisation Management System (NIMS).[159] Extracts from these national datasets are published periodically. Vaccination data can be linked using the patient's NHS number and this is shared back to doctors' clinical systems and other national datasets. [160]

The central datasets that are gathered in this way enable population-level monitoring as well as public health surveillance and reporting.[161] The other advantage is in the area of pharmacovigilance and call/recall programmes where required.

In Northern Ireland, the central system is called the Vaccine Management System (VMS).[162] It is used by community pharmacies and GP practices as well as Health and Social Care Trusts. The VMS acts as a single system of record for vaccination programmes which is then used to update clinical systems in GP practices. It is also shared for surveillance and programme management.

2.7.6 Quality monitoring system

Despite differences in delivery models and funding structures across the four UK nations, PBV operates within a shared set of regulatory, clinical and governance frameworks to ensure consistency, safety and comparability across national immunisation programmes. Quality and safety is monitored through the oversight of the nationally commissioned programmes, the Patient Group Direction (PGD) frameworks, and local governance processes within community pharmacy services.

A core unifying element is the use of national standards and protocols. All pharmacist vaccinators must meet the UK Health Security Agency (UKHSA) National Minimum Standards and Core Curriculum for Immunisation Training, while clinical practice is guided by the UK "Green Book", which provides authoritative, evidence-based recommendations on vaccine use, eligibility, contraindications, and scheduling. In addition, vaccination delivery is governed by PGDs, prescribing frameworks, and service specifications that define clinical eligibility, administration processes, and safety requirements.

Robust pharmacovigilance and data-driven monitoring systems further support safety and quality. Suspected adverse reactions are reported through the MHRA Yellow Card Scheme,[163] ensuring UK-wide consistency in

pharmacovigilance, while many point-of-care systems also allow recording of adverse events at the time of vaccination to support real-time safety monitoring. Each nation also maintains a national immunisation registry—such as the NHS immunisation systems in England, the national data store in Scotland, the Welsh Immunisation System (WIS), and the Vaccination Management System (VMS) in Northern Ireland—which enable monitoring of coverage, evaluation of vaccine effectiveness, and identification of inequalities in uptake.

Clinical governance requirements are consistently applied across all four nations, with providers required to maintain accurate audit trails, ensure staff competency through mandatory training, and comply with PGDs, protocols, and service specifications. Together, these governance, training, pharmacovigilance, and data systems ensure that PBV services are delivered to consistent clinical standards, remain safe and accountable, and are responsive to population health needs across the UK.

2.7.7 Implementation and scale-up strategies

PBV is embedded in the day-to-day operations of community pharmacy as a structured clinical service, delivered through both appointment-based systems and walk-in access depending on programme design and local capacity. Patients may self-refer, be directed via national or local digital booking platforms, or be referred through NHS pathways. Each vaccination involves a clinical consultation to confirm eligibility, obtain consent, and review medical history, followed by administration in a private consultation room and recording in national immunisation systems to ensure continuity of care across the NHS.

Service delivery is supported by multidisciplinary pharmacy teams, with pharmacists leading clinical decisions and governance while pharmacy technicians and support staff assist with operational tasks. PBV is further extended beyond the pharmacy through structured referral pathways such as Pharmacy First, CPCS, and digital referral tools, as well as off-site delivery in settings like care homes and community venues. This flexible and increasingly integrated model improves access, supports coordinated care across healthcare providers, and enhances reach for vulnerable and underserved populations.

The Pharmacy Vaccine Development Group has published a report[134] on the supply models which support effective PBV.

a. Approaches to scaling up pharmacy-based vaccination

1. Network density and accessibility: PBV scale-up is supported by the wide geographic distribution of community pharmacies, extended opening hours, and convenient local access, enabling high-volume vaccination delivery without additional infrastructure.
2. Commissioning expansion: Growth has been driven by increased commissioning and eligibility for pharmacy participation, allowing more pharmacies to deliver a wider range of vaccines and respond quickly to emerging public health needs through flexible programme design.
3. Workforce expansion and role flexibility: Expansion is constrained by capacity rather than capability, with growing service demand highlighting the need for investment in staffing, training, and premises to support sustainable and safe delivery of wider pharmacy clinical services, including vaccination.
4. Integration with NHS systems: Scale-up is enabled by integration with NHS digital platforms, booking systems, referral pathways, and national immunisation registries, supporting streamlined access, coordinated care, real-time data capture, and system-wide oversight.

b. Recent innovations and policy developments in pharmacy-based vaccination

1. Integration of pharmacy booking systems into the National Booking System in England, centrally procured vaccines in Wales, and broadening the offer from community pharmacy by the expansion of pilots involving HPV, MMR and RSV vaccination.
2. Expansion of vaccine scope: PBV is broadening beyond influenza and COVID-19, with pilots and early implementation of vaccines such as RSV and HPV catch-up programmes, alongside plans to further expand access and improve population coverage.
3. Off-site vaccination: Regulatory changes now allow pharmacists to vaccinate outside pharmacy premises (e.g., care homes and workplaces), enabling more flexible, outreach-based delivery and improving access for underserved groups.

4. Flexible workforce models: Growing demand is exposing capacity constraints in community pharmacy, highlighting the need for investment in pharmacists, technicians, and infrastructure to support safe and sustainable expansion of vaccination services.
5. Integration into national strategy: PBV is embedded within NHS vaccination strategies as a core delivery model, with pharmacies positioned as key partners in improving uptake, reducing inequalities, and supporting rapid public health responses.
6. Integration with clinical services: Vaccination services are increasingly linked with Pharmacy First and minor ailment services, enabling more integrated care where prevention and treatment can be delivered in a single patient interaction.

2.7.8 Key enablers and barriers

a. Key enablers

1. Policy positioning of pharmacy as a vaccination setting: England and Wales position community pharmacy as a frontline vaccination setting within national commissioning frameworks. In Scotland, pharmacy contributes to seasonal programmes but plays a more supplementary role alongside NHS Board-led vaccination hubs. In Northern Ireland, pharmacy operates as a coordinated contributor within centrally managed programmes, with growing recognition of its frontline potential.
2. Public trust and acceptance: High public confidence in receiving vaccinations in community pharmacies supports service uptake and provides a foundation for further expansion.
3. Standardised national frameworks: Nationally agreed service specifications and Patient Group Directions (PGDs) ensure consistency in delivery, reduce variation, and strengthen confidence in PBV quality and safety.
4. Workforce capacity and legislative support: A substantial pharmacy workforce underpins delivery across the UK. Legislation enacted in June 2024 allows registered pharmacy technicians in England, Scotland, and Wales to administer vaccines under PGDs. In Northern Ireland, pharmacy technicians are not yet subject to statutory regulation. This represents an opportunity for workforce expansion once regulation is established.
5. Funding and primary care integration: Adequate NHS funding and remuneration are essential to sustaining PBV delivery. Community pharmacies are increasingly recognised as frontline primary care providers, and continued investment in this positioning supports long-term programme sustainability.

b. Key barriers

1. Variation in commissioning models: There is ongoing variation in commissioning across the UK, where some areas rely on local commissioning and others advocate for more nationally standardised vaccination services.
2. Resource and capacity constraints: Despite workforce availability, pharmacies face pressures related to competing clinical and dispensing workloads, alongside the need for sufficient funding to support training, staffing, and service delivery capacity.
3. System fragmentation in commissioning: Particularly in Scotland and Northern Ireland, programme-specific arrangements reduce consistency and economies of scale.
4. Digital interoperability challenges: Multiple systems and incomplete data sharing can delay reporting and affect data quality.
5. Seasonal demand patterns: Vaccination activity is often concentrated in peak periods, limiting year-round service optimisation.
6. Professional and integration barriers: Occasional boundary issues between healthcare professionals and variable referral behaviours can hinder coordination.
7. Public awareness gaps: Some population groups remain unaware of pharmacy vaccination services or continue to prefer traditional GP-based delivery.

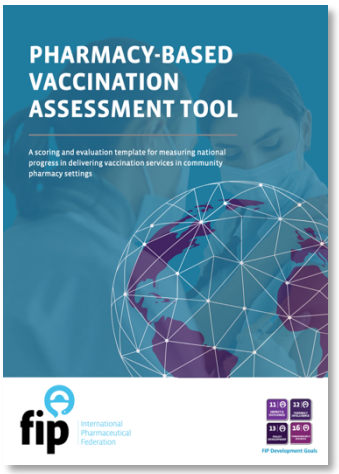
3 Conclusions

The seven country case studies presented in this report offer compelling evidence that PBV has matured into a robust and strategically important component of national immunisation strategies. Across Australia, Canada, France, Ireland, Italy, Portugal, and the United Kingdom, pharmacists have demonstrated their capacity to deliver safe, accessible, and high-quality vaccination services at scale, contributing meaningfully to public health targets and helping to address persistent gaps in adult vaccination coverage.

A number of cross-cutting themes emerge from the case studies:

1. **Legislative and policy reform** has been the cornerstone of PBV expansion in all seven countries. Whether through incremental extensions of pharmacist authority, broad prescribing and administration rights, or integration into national seasonal vaccination campaigns, enabling policy frameworks have been indispensable.
2. **Public trust in community pharmacy** is a consistent enabler across all case studies. Pharmacists are recognised as accessible, competent, and patient-centred healthcare providers, and populations have responded positively to receiving vaccines in pharmacy settings. This trust has been reinforced by experience, particularly through large-scale COVID-19 vaccination programmes, which accelerated both the infrastructure and the public acceptance of PBV.
3. **Structured training and professional accreditation** are essential to sustaining service quality and safety. All seven countries have developed vaccination training requirements for pharmacists, covering both theoretical knowledge and practical administration skills, alongside ongoing continuing professional development.
4. **Sustainable financing and reimbursement** remain critical determinants of service sustainability and scale. Countries that have established public reimbursement mechanisms for both vaccine procurement and administration fees have generally achieved the broad coverage and more equitable access to vaccines.
5. **Digital infrastructure and interoperable vaccination records** are increasingly important to effective PBV delivery. Countries with national immunisation registries accessible to pharmacists are better positioned to support continuity of care, avoid duplicate vaccinations, and monitor coverage in real time.

The case studies in this report affirm that PBV is not merely a supplementary service, but a core pillar of life-course immunisation delivery, one that is well-positioned to help countries meet the ambitious goals of the WHO Immunisation Agenda 2030 and ensure that no one is left behind.



As PBV continues to evolve globally, the role of FIP will be vital in supporting and facilitating the exchange of knowledge and experiences, advocating for enabling policy environments, and supporting our member organisations to realise the full potential of pharmacists as vaccination providers.

To help translate these recommendations into pharmacy practice, FIP developed the Pharmacy-Based Vaccination Assessment Tool, a scoring and evaluation template for measuring national progress in delivering vaccination services in community pharmacy settings. Covering six domains – including policy landscape, workforce capacity, training requirements, financing and reimbursement, vaccination records, and quality monitoring systems – the tool enables countries to benchmark progress, identify gaps, and support evidence-informed policy and service development.

Special acknowledgements

FIP acknowledges the following member organisations (MOs) and case study authors for their contributions to the report:

Australia
Pharmaceutical Society of Australia
Peter Guthrey; Senior Pharmacist, Strategic Policy & Advocacy

Canada
Canadian Pharmacists Association
Madeline Hieneman; Manager, Policy & Stakeholder Engagement
Sadaf Faisal; Chief Pharmacist Officer

France
French Chamber of Pharmacists

Ireland
Irish Pharmacy Union
Susan O' Donnell, Professional Services Pharmacist

Italy
Italian Pharmacy Owners Federation
Erminia Pietrobono; Legal and Policy Officer

Portugal
National Association of Pharmacies
Mariana Medeiros; Policy and Institutional Affairs Manager
Paula Teixeira; Scientific Information Manager, Center for Medicines Information and Health Interventions
Teresa Almeida; Board Member
Ema Paulino; President

United Kingdom
Royal College of Pharmacy
Fiona McIntyre; Policy & Practice Lead
Alwyn Fortune; Pharmacy Policy and Engagement Lead
Heidi Wright; Policy and Practice Lead

Pharmacists' Defence Association
Mark Koziol; Chairman
Martin Astbury; NHS Pharmacist
Alison Jones; Director of Policy and Communications
Maurice Hickey; Head of Policy
Bharat Nathwani; Member of the Advisory Board

References

1. Jaca A, Mathebula L, Malinga T et al. Interventions to Improve Vaccination Uptake Among Adults: A Systematic Review and Meta-Analysis. Vaccines (Basel). 2025;13(8). [Cited: 2 February 2026]. Available at: https://www.mdpi.com/2076-393X/13/8/811.
2. Burson RC, Buttenheim AM, Armstrong A et al. Community pharmacies as sites of adult vaccination: A systematic review. Hum Vaccin Immunother. 2016;12(12):3146-59. [Cited: 18 March 2025]. Available at: https://pubmed.ncbi.nlm.nih.gov/27715409/.
3. Mahzari MM ME, Alkhattabi AA, et al. A review on the Impact of pharmacist vaccination services on public health. Migration Letters. 2023;20(S1 (Supplement1)):2458-66. [Cited: 15 February 2025]. Available at: https://migrationletters.com/index.php/ml/article/view/8853.
4. Tsuyuki RT BN, Okada H, et al. Pharmacists as accessible primary health care providers: Review of the evidence. Canadian Pharmacy Journal (CPJ). 2018;151(1):4-5. [Cited: 04 February 2025]. Available at: https://pubmed.ncbi.nlm.nih.gov/29317929/.
5. International Pharmaceutical Federation. Leveraging pharmacy to deliver life-course vaccination: An FIP global intelligence report. The Hague, The Netherlands: Federation IP [Internet]. 2024. [Cited: 27 January 2026]. Available at: https://www.fip.org/file/5851.
6. World Health Organization (WHO). Immunisation Agenda 2030: A Global Strategy to Leave No One Behind. Geneva, Switzerland: [Internet]. 2020. [Cited: 04 February 2025]. Available at: https://www.who.int/teams/immunization-vaccines-and-biologicals/strategies/ia2030.
7. International Pharmaceutical Federation (FIP). Policy progress, stakeholder engagement and challenges in pharmacist-led vaccination - Findings from FIP reports and literature. [Internet]. 2025. [Cited: 24 October 2025]. Available at: https://www.fip.org/file/6208.
8. International Pharmaceutical Federation (FIP). An overview of current pharmacy impact on immunisation: A global report 2016. The Hague: International Pharmaceutical Federation [Internet]. 2016. [Cited: Available at: https://www.fip.org/files/fip/publications/FIP_report_on_Immunisation.pdf.
9. International Pharmaceutical Federation (FIP). An overview of pharmacy's impact on immunisation coverage: A global survey. The Hague: International Pharmaceutical Federation [Internet]. 2020. [Cited: 15 March 2024]. Available at: https://www.fip.org/file/4751.
10. International Pharmaceutical Federation (FIP). Leveraging pharmacy to deliver life-course vaccination: An FIP global intelligence report. The Hague: [Internet]. 2024. [Cited: May 15, 2026]. Available at: https://www.fip.org/file/5851.
11. The World Bank Website. World Bank Open Data: 2026. updated [accessed: May 13, 2026]. Available at: https://data.worldbank.org/.
12. Australian Technical Advisory Group on Immunisation (ATAGI). Australian Immunisation Handbook Canberra, Australia: Australian Government Department of Health and Aged Care; 2026. updated [accessed: May 15, 2026]. Available at: https://immunisationhandbook.health.gov.au/.
13. Pharmaceutical Society of Australia (PSA). Pharmacist led vaccinations: Pharmaceutical Society of Australia; 2026. updated [accessed: May 15, 2026]. Available at: https://www.psa.org.au/state-vaccination-regulations/
14. Australian Government Department of Health DaA. National Immunisation Program: 2023. updated [accessed: May 15, 2026]. Available at: https://www.health.gov.au/our-work/national-immunisation-program.
15. Pharmacy Programs Administrator. National Immunisation Program Vaccineations in Pharmacy (NIPVIP) Program, : 2026. updated [accessed: May 15, 2026]. Available at: https://www.ppaonline.com.au/programs/national-immunisation-program-vaccinations-in-pharmacy-program.
16. Laffan D. National Immunisation Strategy presentation at Immunisation Coalition Annual Scientific Meeting. 2026.
17. Australian Government Department of Health DaA. Influenza (flu) immunization data: 2026. updated [accessed: May 15, 2026]. Available at: https://www.health.gov.au/resources/collections/influenza-flu-immunisation-data?language=en.
18. Australian Government Department of Health DaA. Using the Australian Immunisation Register: 2025. updated [accessed: May 15, 2026]. Available at: https://www.health.gov.au/topics/immunisation/immunisation-information-for-health-professionals/using-the-australian-immunisation-

register#:~:text=Recognised%20vaccination%20providers%20should%20record,can%20also%20be%20used%20to%3A.
19. Pharmaceutical Society of Australia (PSA). Practice guidelines for the provision of immunisation services: Pharmaceutical Society of Australia; updated [accessed: May 15, 2026]. Available at: https://my.psa.org.au/s/article/immunisation-guidelines.
20. Pharmacy Guild of Australia. What is QCPP: 2026. updated [accessed: May 15, 2026]. Available at: https://www.qcpp.com/about-qcpp/what-is-qcpp.
21. Pharmacy Guild of Australia. Vaccination services: 2026. updated [accessed: May 15, 2026]. Available at: https://www.guild.org.au/programs/vaccination-services.
22. Australian Government Department of Health. National vaccine storage guidelines: Strive for 5: updated [accessed: May 15, 2026]. Available at: https://www.health.gov.au/resources/publications/national-vaccine-storage-guidelines-strive-for-5?language=en.
23. Canadian Pharmacists Association. Injection Authority and Vaccine Administration in Pharmacies Across Canada: 2025. updated [accessed: 9 May 2026]. Available at: https://www.pharmacists.ca/cpha-ca/assets/File/cpha-on-the-issues/Scope-of-Practice-Immunization_EN.pdf.
24. Buchan SA RL, Finkelstein M, Juurlink D, Isenor J, Marra F, Patel A, Russell ML, Quach S, Waite N, Kwong JC. Impact of pharmacist administration of influenza vaccines on uptake in Canada. Canadian Medical Association Journal. 2017;189(4):E146–E52. [Cited: May 12, 2026]. Available at: https://www.cmaj.ca/content/cmaj/189/4/E146.full.pdf.
25. Pelletier J. Nunavut legislature approves law allowing pharmacists to give vaccines: Nunatsiaq News; 2025. updated [accessed: May 12, 2026]. Available at: https://nunatsiaq.com/stories/article/nunavut-legislature-approves-law-allowing-pharmacists-to-give-vaccines/#:~:text=The%20Pharmacy%20Profession%20Act%20has%20passed%20third,Nunavut's%20pharmacy%20laws%20during%20the%20COVID-19%20pandemic.
26. Government of Canada. Immunization in Canada: Canadian Immunization Guide: 2025. updated [accessed: May 12, 2026]. Available at: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-1-key-immunization-information/page-2-immunization-in-canada.html.
27. Government of Canada. Canadian Immunization Guide: 2025. updated [accessed: May 12, 2026]. Available at: https://www.canada.ca/en/public-health/services/canadian-immunization-guide.html.
28. Canadian Medical Association. Where does Canada get its vaccines? : updated [accessed: May 12, 2026]. Available at: https://www.cma.ca/healthcare-for-real/where-does-canada-get-its-vaccines.
29. Alberta Pharmacists Association. Public Health Vaccines: updated [accessed: May 12, 2026]. Available at: https://rxa.ca/professional-practice/public-health-programs/public-funded-vaccine/#:~:text=dTap%20Information%20and%20Resources,Pneumococcal.
30. Bristish Columbia Pharmacy Association. A new milestone: B.C. pharmacists dispense 102 million prescriptions in a year! : 2025. updated [accessed: May 12, 2026]. Available at: https://www.bcpharmacy.ca/tablet/summer-25/pharmacists-dispense-102-million-prescriptions.
31. College of Pharmacists of Manitoba. College of Pharmacists of Manitoba Annual. [Internet]. 2024. [Cited: May 12, 2026]. Available at: https://cphm.ca/wp-content/uploads/Publications/Annual-Report/2024/CPhM-Annual-Report-2024-V_04.1.pdf.
32. New Brunswick College of Pharmacists. Annual Report. [Internet]. 2022. [Cited: May 12, 2026]. Available at: https://nbpharmacists.ca/wp-content/uploads/2022/02/NBCP_AR2020_English-updated-Awards.pdf.
33. Sherilyn KD Houle PT, Nancy M Waite, Alain Gauthier. Identifying vaccination deserts: The availability and distribution of pharmacists with authorization to administer injections in Ontario. Canadian Pharmacists Journal. 2022;5(155):258-66. [Cited: May 13, 2026]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC9445507/.
34. The Canadian Health Workforce Education. Caring for Canadians: Canada's Future Health Workforce: 2025. updated [accessed: May 13, 2026]. Available at: https://www.canada.ca/content/dam/hc-sc/documents/services/health-care-system/health-human-resources/workforce-education-training-distribution-study/workforce-education-training-distribution-study.pdf.
35. Waite NM, Houle SKD, Toppari K et al. Willingness of Canadian community pharmacists to adopt a proactive life-course approach to vaccination services. Journal of the American Pharmacists Association. 2024;64(4):102073. [Cited: May 13, 2026]. Available at: https://dx.doi.org/10.1016/j.japh.2024.102073.

36. Alberta College of Pharmacy. Additional prescribing authorization (APA): updated [accessed: May 12, 2026]. Available at: https://abpharmacy.ca/regulated-members/registration/pharmacists/authorizations/additional-prescribing-authorization-apa/.
37. College of Pharmacists of Manitoba. Administering Drugs and Vaccines by Injection: updated [accessed: May 12, 2026]. Available at: https://cphm.ca/practice-education/administer-drugs-vaccines/#:~:text=To%20administer%20drugs%20and%20vaccines%20by%20injection,from%20the%20College%20of%20Pharmacists%20of%20Manitoba.
38. New Brunswick College of Pharmacists. Authorization to Administer Drugs by Injection: updated [accessed: May 12, 2026]. Available at: https://nbpharmacists.ca/en/authorization-to-administer-drugs-by-injection/.
39. Nova Scotia College Pharmacists. Pharmacist Application: NSCP Drug Administration by Injection Permit: 2024. updated [accessed: May 12, 2026]. Available at: https://nspharmacy.ca/wp-content/uploads/Application_Registrations_InjectionPermit_Pharmacist.pdf.
40. Ontario Pharmacists Association. Injections and Immunizations Certificate Program for Pharmacists: updated [accessed: May 13, 2026]. Available at: https://www.opatoday.com/product/immunizations-pharmacists/.
41. Prince Edward Island College of Pharmacy (PEICP) Administration of Drugs. [Internet]. 2020. [Cited: May 12, 2026]. Available at: https://pepharmacists.ca/wp-content/uploads/2020/09/Administration-of-Drugs-Sept-2020-DRAFT.pdf.
42. Ontario. Immunizations for adults: 2025. updated [accessed: May 12, 2026]. Available at: https://www.ontario.ca/page/vaccines-adults.
43. Maclean's. Canada Needs a National Vaccination Registry: 2025. updated [accessed: May 13, 2026]. Available at: https://macleans.ca/society/health/canada-needs-a-national-vaccination-registry/.
44. Government of Canada. National guidelines for immunization practices: Canadian Immunization Guide: 2025. updated [accessed: May 13, 2026]. Available at: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-1-key-immunization-information/page-4-national-guidelines-immunization-practices.html.
45. Government of Canada. Vaccine administration practices: Canadian Immunization Guide. 2025. [Cited: May 13, 2026]. Available at: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-1-key-immunization-information/page-8-vaccine-administration-practices.html.
46. Government of Canada. Immunization Competencies for Health Professionals: 2025. updated [accessed: May 13, 2026]. Available at: https://www.canada.ca/en/public-health/services/publications/healthy-living/immunization-competencies-health-professionals.html.
47. Alberta Health Services. Immunization Program Standards Manual: 2026. updated [accessed: May 13, 2026]. Available at: https://www.albertahealthservices.ca/cdc/Page10802.aspx.
48. Alberta Health Services. Adverse Event Following Immunization Reporting: updated [accessed: May 13, 2026]. Available at: https://www.albertahealthservices.ca/cdc/Page16187.aspx.
49. Provincial Health Services Authority. Immunization Manual: updated [accessed: May 13, 2026]. Available at: https://www.bccdc.ca/health-professionals/clinical-resources/communicable-disease-control-manual/immunization.
50. Manitoba. Manitoba Immunization Program Manual: updated [accessed: May 13, 2026]. Available at: https://www.gov.mb.ca/health/publichealth/cdc/div/manual/index.html.
51. College of Pharmacists of Manitoba. Practice Direction Administration of Drugs including Vaccines 2022. updated [accessed: May 13, 2026]. Available at: https://cphm.ca/wp-content/uploads/Resource-Library/Practice-Directions-Standards/Final-Adminstration-of-Drugs-Including-Vaccines-2025v2.pdf.
52. Government of New Brunswick. Immunization Practice Standards for All Immunization Providers: 2022. updated [accessed: May 13, 2026]. Available at: https://www.gnb.ca/content/dam/GNB3/t/hw-sme/ihp-ips/immunization-guide/docs/standards-immunization.pdf.
53. Government of New Brunswick. New Brunswick Immunization Program Guide (NBIPG): updated [accessed: May 13, 2026]. Available at: https://www.gnb.ca/en/topic/health-wellness/info-health-professional/nb-immunization-guide.html.
54. Government of Newfoundland. Newfoundland and Labrador Immunization Manual: updated [accessed: May 13, 2026]. Available at: https://www.gov.nl.ca/hcs/files/publichealth-cdc-s1-routine-guidlns-schedules.pdf.
55. Government of Nova Scotia. Nova Scotia Immunization Manual 2025. updated [accessed: May 13, 2026]. Available at: https://novascotia.ca/dhw/cdpc/documents/immunization-manual.pdf.

56. Ontario College of Pharmacists. Administering a Substance by Injection Guideline: 2024. updated [accessed: May 13, 2026]. Available at: https://ocpinfo.com/pharmacy-professionals/rules-and-standards-of-the-profession/practice-policies-guidelines/administering-a-substance-by-injection/.
57. Ontario College of Pharmacists. Reporting Adverse Reactions to Vaccines and Medications: 2017. updated [accessed: May 13, 2026]. Available at: https://ocpinfo.com/ocp-resources/reporting-adverse-reactions-to-vaccines-and-medications/.
58. Québec Ministère de la Santé et des Services sociaux. Protocole d'immunisation du Québec (PIQ): updated [accessed: May 13, 2026]. Available at: https://msss.gouv.qc.ca/professionnels/vaccination/protocole-d-immunisation-du-quebec-piq/.
59. Government of Saskatchewan. Saskatchewan Immunization Manual: updated [accessed: May 13, 2026]. Available at: https://www.ehealthsask.ca/services/Manuals/Pages/SIM.aspx.
60. Government of Canada. Adverse Reaction Reporting and Health Product Safety Information: 2011. updated [accessed: May 13, 2026]. Available at: https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/dhp-mps/alt_formats/pdf/pubs/medeff/fs-if/2011-ar-ei-guide-prof/2011-ar-ei-guide-prof-eng.pdf.
61. Government of Canada. Canada Vigilance Program: 2022. updated [accessed: May 13, 2026]. Available at: https://www.canada.ca/en/health-canada/services/drugs-health-products/medeffect-canada/canada-vigilance-program.html.
62. Government of Canada. Adverse events following immunization (AEFI): Canadian Immunization Guide: 2023. updated [accessed: May 13, 2026]. Available at: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-2-vaccine-safety/adverse-events-following.html#w.
63. Canadian Foundation of Pharmacy. Vaccines and Vigilance: 2026. updated [accessed: May 13, 2026]. Available at: https://cfpnet.ca/vaccines-and-vigilance/.
64. Ontario. Executive Officer Notice: Administration of the Publicly Funded Influenza Vaccines in Ontario Pharmacies: 2023. updated [accessed: May 13, 2026]. Available at: https://files.ontario.ca/moh-executive-officer-notice-en-2023-09-15.pdf.
65. Kajan Srirangan AL. Helping Québec Pharmacists Seize the Vaccination Service Opportunity: The Pharmacy Best Practice Workshops. Pharmacy. 2021;9(1):51. [Cited: May 13, 2026]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC8005967/.
66. Canada NPAo. Pharmacies Calling for Access to Routine Immunizations to Help Protect Ontarians: 2021. updated [accessed: May 13, 2026]. Available at: https://www.newswire.ca/news-releases/pharmacies-calling-for-access-to-routine-immunizations-to-help-protect-ontarians-824815835.html.
67. Global News. Quebec joins Alberta in ending free COVID-19 shots, may charge $180 per dose: 2025. updated [accessed: May 13, 2026]. Available at: https://globalnews.ca/news/11434794/quebec-ends-free-covid-vaccines/.
68. Alexandre Chadi, Daniel J G Thirion, Nancy M Waite, Pierre-Marie David. Key stakeholder perspectives on delivery of vaccination services in Quebec community pharmacies. Canadian Pharmacists Journal 2024;6(157):304-14. [Cited: May 13, 2026]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC11556574/.
69. Nancy M. Waite SKDH, Kristina Toppari, Jennifer A. Pereira. Willingness of Canadian community pharmacists to adopt a proactive life-course approach to vaccination services. Journal of the American Pharmacists Association. 2024;64(4). [Cited: May 13, 2026]. Available at: https://www.sciencedirect.com/science/article/pii/S1544319124000931.
70. Government of Canada. Vaccination coverage in children: 2024. updated [accessed: May 13, 2026]. Available at: https://health-infobase.canada.ca/vaccination-coverage/starvax/children.html.
71. Government of Canada. Working with partners to modernize public health data: 2025. updated [accessed: May 13, 2026]. Available at: https://www.canada.ca/en/public-health/programs/working-with-partners-modernize-public-health-data.html.
72. Leger. How Vaccine Confidence in Canada Is Shifting: 2025. updated [accessed: May 13, 2026]. Available at: https://leger360.com/in-the-news-how-vaccine-confidence-in-canada-is-shifting/.
73. Unicef. New UNICEF report shows decline in confidence in childhood vaccines in Canada during COVID-19: 2023. updated [accessed: May 13, 2026]. Available at: https://www.unicef.ca/en/press-release/new-unicef-report-shows-decline-confidence-childhood-vaccines-canada-during-covid-19.
74. Catherine Ji P-PP-R, Jemisha Apajee, Ellen Stephenson, Milena Forte, Jeremy N Friedman, Michelle Science, Stanley Zlotkin, Shaun K Morris, Karen Tu. Impact of the COVID-19 pandemic on routine immunization coverage in children under 2 years old in Ontario, Canada: A retrospective cohort stud.

Elsevier. 2022;12(40):1790–8. [Cited: May 13, 2026]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC8824235/.
75. Government of Canada. Effects of the COVID-19 Pandemic on Routine Childhood Immunizations: updated [accessed: May 13, 2026]. Available at: https://impact.canada.ca/en/reports/COVID-19/childhood-immunizations.
76. Sherilyn KD Houle PT, Nancy M Waite, Alain Gauthier. Identifying vaccination deserts: The availability and distribution of pharmacists with authorization to administer injections in Ontario. SageJournals. 2022;155(5). [Cited: 13 May 2026]. Available at: https://journals.sagepub.com/doi/full/10.1177/17151635221115183?af=R&ai=1gvoi&mi=3ricys&__cf_chl_tk=G_yU5_0Gunbo.Bo8o8L9w8pNfhOePNMaaLmO.GX53c8-1777490940-1.0.1.1-1hem6dDYZFkJ4LzOkC5VOzOGSTQ73Bwqw8PB.sqkYY4.
77. Arrêté du 8 août 2023 fixant le cahier des charges relatif aux conditions techniques à respecter pour exercer l'activité de vaccination et les objectifs pédagogiques de la formation à suivre par certains professionnels de santé en application des articles R. 4311-5-1, R. 5125-33-8, R. 5126-9-1 et R. 6212-2 du code de la santé publique. 2023. Available at: https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000047949107.
78. Ministère de la Santé. The vaccination schedule: 2026. updated [accessed: May 13, 2026]. Available at: https://sante.gouv.fr/prevention-en-sante/preserver-sa-sante/vaccination/calendrier-vaccinal.
79. French Chamber of Pharmacists, Demography 2024 [accessed : 26 May 2026].
80. Ordre National des Pharmaciens. Vaccination à l'officine : rappel des règles en vigueur: 2024. updated [accessed: May 13, 2026]. Available at: https://www.ordre.pharmacien.fr/les-communications/focus-sur/les-actualites/vaccination-a-l-officine-rappel-des-regles-en-vigueur.
81. Cespharm. Extension des compétences vaccinales : parution des textes officiels: 2023. updated [accessed: May 13, 2026]. Available at: https://www.cespharm.fr/prevention-sante/actualites/2023/extension-des-competences-vaccinales-parution-des-textes-officiels.
82. Ordre des pharmaciens. Les Pharmaciens et la Vaccination updated [accessed: May 13, 2026]. Available at: https://www.ordre.pharmacien.fr/mediatheque/fichiers/les-cahiers-thematiques/cahier-thematique-9-les-pharmaciens-et-la-vaccination.
83. France's "dossier pharmaceutique": patient information shared between pharmacists. Prescrire (June 2010 Spotlight article): [Internet]. 2010. [Cited: May 15, 2026]. Available at: https://english.prescrire.org/en/81/168/46345/0/2010/ArchiveNewsDetails.aspx?page=3.
84. Hodel K, Fiuza B, Conceição R et al. Pharmacovigilance in Vaccines: Importance, Main Aspects, Perspectives, and Challenges—A Narrative Review. Pharmaceuticals. 2024;17. [Cited: May 15, 2026]. Available at: https://consensus.app/papers/pharmacovigilance-in-vaccines-importance-main-aspects-hodel-fiuza/eb302ff53db65cc1b109c368dfed2d03/.
85. Jonville-Béra A, Gautier S, Micallef J et al. Monitoring the safety of drugs and COVID-19 vaccines by the French Pharmacovigilance Centers during the pandemic: a win-win bet with Health Authorities! Therapie. 2023. [Cited: May 15, 2026]. Available at: https://consensus.app/papers/monitoring-the-safety-of-drugs-and-covid19-vaccines-by-the-jonvillebra-gautier/ba2bda26bb235b779567ae32765334ff/.
86. International Pharmaceutical Federation (FIP). Policy progress, stakeholder engagement and challenges in pharmacist-led vaccination: Findings from FIP reports and literature The Hague: [Internet]. 2025. [Cited: May 15, 2026]. Available at: https://www.fip.org/file/6208.
87. International Pharmaceutical Federation (FIP). Achieveing pharmacy-based vaccination: Advocacy strategies and stakeholder engagement: updated [accessed: May 15, 2026]. Available at: https://prevention.fip.org/wp-content/uploads/2024/12/Pharmacy-based-vacc.pdf.
88. Office of the Attorney General. Legislation S.I. No. 525/2011 - Medicinal products (Prescription and Control of Supply) (Amendment) regulations 2011: Irish Statute Book; 2011. updated [accessed: May 15, 2026]. Available at: http://www.irishstatutebook.ie/eli/2011/si/525/made/en/print.
89. Office of the Attorney General. Legislation S.I. No. 449/2015 - Medicinal Products (Prescription and Control of Supply) (Amendment) (No.2) Regulations 2015: Irish Statute Book; 2015. updated [accessed: May 15, 2026]. Available at: http://www.irishstatutebook.ie/eli/2015/si/449/made/en/pdf.
90. Office of the Attorney General. S.I. No. 401/2020 - Medicinal Products (Prescription and Control of Supply) (Amendment) (No. 5) Regulations 2020: Irish Statute Book; 2020. updated [accessed: May 12, 2026]. Available at: https://www.irishstatutebook.ie/eli/2020/si/401/made/en/print.
91. Pharmaceutical Society of Ireland (PSI). Vaccination Services: updated [accessed: May 15, 2026]. Available at: https://www.psi.ie/practice-supports/practice-updates-and-learnings/vaccination-services.
92. Health (Miscellaneous Provisions) Act 2024, (2024).

93. Government of Ireland. S.I. No. 540/2003 - Medicinal Products (Prescription and Control of Supply) Regulations 2003: Irish Statute Book; 2003. updated [accessed: May 15, 2026]. Available at: https://www.irishstatutebook.ie/eli/2003/si/540/made/en/print.
94. Pharmaceutical Society of Ireland (PSI). Review of Vaccination and Emergency Medicines Training Requirements for Pharmacists 2025. Ireland PSo [Internet]. 2025. [Cited: May 15, 2026]. Available at: https://www.psi.ie/sites/default/files/document/Vaccination_and_Emergency_Medicines_Training_Requirements_for_Pharmacists_2025.pdf.
95. Pharmaceutical Society of Ireland (PSI). The Administration of Injectable Medicines by Pharmacists: Pharmaceutical Society of Ireland; 2026. updated [accessed: May 15, 2026]. Available at: https://www.psi.ie/practice-supports/practice-updates-and-learnings/administration-injectable-medicines-pharmacists.
96. Community Pharmacy Agreement 2025, (2025).
97. Pharmaceutical Society of Ireland (PSI). Guidance on the Provision of Vaccination Services by Pharmacists in Retail Pharmacy Businesses. [Internet]. 2023. [Cited: May 15, 2026]. Available at: https://www.psi.ie/sites/default/files/2024-06/Guidance_on_the_Provision_of_Vaccination_Services_by%20Pharmacists.pdf.
98. Gilroy J, O'Leary M, Domegan L et al. Increasing the uptake of Live Attenuated Influenza Vaccine through a new school-based vaccination programme in Ireland. Vaccine. 2025;62:127467. [Cited: May 15, 2026]. Available at: https://doi.org/10.1016/j.vaccine.2025.127467.
99. Barrett T. The LAIV nasal vaccine for children — an update: Irish Pharmacist; 2021. updated [accessed: May 15, 2026]. Available at: https://irishpharmacist.ie/news/feature/the-laiv-nasal-vaccinefor-children-an-update/.
100. Repubblica Italiana. Decreto-Legge 1 aprile 2021, n. 44 – Misure urgenti COVID-19, vaccinazione anti SARS-CoV-2: 2021. updated [accessed: May 13, 2026]. Available at: https://www.gazzettaufficiale.it/.
101. Italiana R. Decreto-Legge 24 marzo 2022, n. 24 – Misure urgenti per il superamento delle restrizioni COVID-19 (converted by Legge 19 maggio 2022, n. 52): 2022. updated [accessed: 13 May, 2026]. Available at: https://www.gazzettaufficiale.it/.
102. Repubblica Italiana. Decreto Legislativo 3 ottobre 2009, n. 153 – Farmacia dei servizi: 2009. updated [accessed: May 13, 2026]. Available at: https://www.gazzettaufficiale.it/eli/gu/2009/11/04/257/sg/pdf.
103. Repubblica Italiana. Legge 15 novembre 2025, n. 182 – Semplificazione sanitaria e farmacia dei servizi: 2025. updated [accessed: May 13, 2026]. Available at: https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2025-12-02;182.
104. Repubblica Italiana. Legge 30 dicembre 2025, n. 199 – Legge di Bilancio 2026: 2025. updated [accessed: May 13, 2026]. Available at: https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2025-12-30;199.
105. Conferenza Stato-Regioni. Accordo Collettivo Nazionale per la farmacia convenzionata SSN: 1998. updated [accessed: May 13, 2026]. Available at: https://www.federfarma.it/.
106. Conferenza Stato-Regioni. Accordo 24 marzo 2021 – Vaccinazione anti-COVID-19 in farmacia: 2021. updated [accessed: May 13, 2026]. Available at: https://www.statoregioni.it/.
107. Salute Md. Piano Nazionale di Prevenzione Vaccinale 2023–2025: 2023. updated [accessed: May 13, 2026]. Available at: https://www.gazzettaufficiale.it/.
108. Conferenza Stato-Regioni. Sistema ECM – Educazione Continua in Medicina: 2007. updated [accessed: May 13, 2026]. Available at: https://www.agenas.it/.
109. WHO. Explaining the Immunization Agenda 2030: 2021. updated [accessed: May 13, 2026]. Available at: https://www.who.int/teams/immunization-vaccines-and-biologicals/strategies/ia2030/explaining-the-immunization-agenda-2030.
110. Farmacia News. "La farmacia italiana 2025": il nuovo rapporto Federfarma: 2025. updated [accessed: May 13, 2026]. Available at: https://www.farmacianews.it/la-farmacia-italiana-2025-il-nuovo-rapporto-federfarma/.
111. Federfarma. Rapporto annuale sulla farmacia italiana 2025: 2025. updated [accessed: May 13, 2026]. Available at: https://www.federfarma.it/.
112. Repubblica Italiana. Decreto Legislativo 7 giugno 2017, n. 73 – Anagrafe Nazionale Vaccini: 2017. updated [accessed: May 13, 2026]. Available at: https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legge:2017-06-07;73!vig.
113. Anagrafe Nazionale Vaccini – Decreto attuativo, (2018).
114. Repubblica Italiana. Decreto-Legge 19 maggio 2020, n. 34 – Fascicolo Sanitario Elettronico: 2020. updated [accessed: May 13, 2026]. Available at: https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legge:2020-05-19;34.
115. Repubblica Italiana. D.Lgs. n. 219 – Codice comunitario sui medicinali per uso umano (attuazione Direttiva 2004/27/CE): 2006. updated [accessed: May 13, 2026]. Available at: https://www.normattiva.it/.

116. Repubblica Italiana. Legge 29 dicembre 2022, n. 197 – Legge di Bilancio 2023: 2022. updated [accessed: May 13, 2026]. Available at: https://www.normattiva.it/.
117. Panorama della Sanita. Per gli italiani la farmacia migliora la sanità: 2026. updated [accessed: May 12, 2026]. Available at: https://panoramadellasanita.it/site/per-gli-italiani-la-farmacia-migliora-la-sanita/.
118. Repubblica Italiana. Costituzione della Repubblica Italiana – Art. 117: 1947. updated [accessed: May 13, 2026]. Available at: https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:costituzione:1947-12-27@originale~art117.
119. Portugal Ministério da Saúde. Portaria n.º 1429/2007, de 2 de novembro – Define os serviços farmacêuticos que podem ser prestados pelas farmácias: 2007. updated 9 April 2018 (Portaria n.º 97/2018). [accessed: May 15, 2026]. Available at: https://diariodarepublica.pt/dr/legislacao-consolidada/portaria/2007-115010275.
120. Portugal. Ministério da Saúde. Portaria n.º 264/2023, de 17 de agosto: Estabelece o modelo de funcionamento da Campanha de Vacinação Sazonal do Outono-Inverno 2023-2024 contra a gripe e contra a COVID-19 em farmácias comunitárias.: 2023. updated [accessed: May 15, 2026]. Available at: https://diariodarepublica.pt/dr/detalhe/portaria/264-2023-219991259.
121. Ordem dos Farmacêuticos. Referencial formativo: Administração de vacinas e medicamentos injetáveis em farmácia comunitária (AVMI), versão 2. : Ordem dos Farmacêuticos.; 2026. updated [accessed: May 15, 2026]. Available at: https://www.ordemfarmaceuticos.pt/fotos/documentos/27032026_refformativo_avmi_v2_5625580506 9c66b9430fce.pdf.
122. Portugal. Ministério das Finanças & Ministério da Saúde. Portaria n.º 315/2025/1, de 18 de setembro. Diário da República, Série I, n.º 180.: 2025. updated [accessed: May 15, 2026]. Available at: https://diariodarepublica.pt/dr/detalhe/portaria/315-2025-935740874.
123. Direção-Geral da Saúde. Norma n.º 009/2025 de 09/09/2025, atualizada a 26/11/2025: Campanha de vacinação sazonal contra a gripe – Outono-Inverno 2025–2026: DGS; 2025; 2025. updated [accessed: May 15, 2026]. Available at: https://www.dgs.pt/normas-orientacoes-e-informacoes/normas-e-circulares-normativas/norma-n-0092025-de-09092025-atualizada-a-26112025-campanha-de-vacinacao-sazonal-contra-a-gripe-outono-inverno-2025-2026-pdf.aspx.
124. Direção-Geral da Saúde. Norma 010/2026 - Estratégia de Vacinação contra a COVID-19: Esquema Vacinal Primário e Campanha de Vacinação Sazonal Outono-Inverno 2025-2026 DGS; 2025; 2025. updated [accessed: May 15, 2026]. Available at: https://www.madeira.gov.pt/drs/Estrutura/DRS/ctl/Read/mid/12765/InformacaoId/249482/UnidadeOrganicaId/48.
125. Francisco G-d-S, Andre P-S, Miguel C et al. From Public Healthcare Centers to Community Pharmacies: The New Portuguese Seasonal Vaccination Strategy. Frontiers in Public Health. 2025. [Cited: May 15, 2026]. Available at: https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2026.1747656/abstract.
126. Government W. National immunisation framework for Wales: 2022. updated [accessed: May 15, 2026]. Available at: https://www.gov.wales/national-immunisation-framework-wales.
127. Agency UHS. Immunisation: 2026. updated [accessed: May 15, 2026]. Available at: https://www.gov.uk/government/collections/immunisation#immunisation-publications.
128. NHS England. NHS vaccination strategy: 2023. updated 4 January, 2024. [accessed: May 15, 2026]. Available at: https://www.england.nhs.uk/long-read/nhs-vaccination-strategy/.
129. Public Health Scotland. Scotland's 5-year Vaccination and Immunisation Framework and Delivery Plan: 2024. updated [accessed: May 15, 2026]. Available at: https://publichealthscotland.scot/publications/scotlands-5-year-vaccination-and-immunisation-framework-and-delivery-plan/.
130. UK Government. Joint Committee on Vaccination and Immunisation: updated [accessed: May 15, 2026]. Available at: https://www.gov.uk/government/groups/joint-committee-on-vaccination-and-immunisation.
131. Legislation U. The Human Medicines (Amendments relating to Registered Dental Hygienists, Registered Dental Therapists and Registered Pharmacy Technicians) Regulations 2024: updated [accessed: May 15, 2026]. Available at: https://www.legislation.gov.uk/uksi/2024/729/made.
132. General Pharmaceutical Council. Standards for the initial education and training of pharmacists [Internet]. 2021. [Cited: May 15, 2026]. Available at: https://assets.pharmacyregulation.org/files/2024-01/Standards%20for%20the%20initial%20education%20and%20training%20of%20pharmacists%20January%202021%20final%20v1.4.pdf.

133. Company Chemists' Association (CCA). Increasing vaccination uptake through community pharmacy: 2026. updated [accessed: May 15, 2026]. Available at: https://thecca.org.uk/resource/increasing-vaccination-uptake-through-community-pharmacy/.
134. Company Chemists' Association (CCA). Models of vaccine supply: 2026. updated [accessed: May 15, 2026]. Available at: https://thecca.org.uk/resource/models-of-vaccine-supply/.
135. Scottish Government. WINTER PROGRAMME 2025 – SEASONAL FLU AND COVID-19 VACCINATION 2025. updated [accessed: May 15, 2026]. Available at: https://www.publications.scot.nhs.uk/files/cmo-2025-15.pdf.
136. The national influenza immunisation programme 2025 to 2026 (WHC/2025/020) [press release]. 2025.
137. NHS England. Flu and COVID-19 Seasonal Vaccination Programme: autumn/ winter 2025/26: 2025. updated [accessed: May 15, 2026]. Available at: https://www.england.nhs.uk/long-read/flu-and-covid-19-seasonal-vaccination-programme-autumn-winter-2025-26/.
138. Royal College of Pharmacy. Pharmacy COVID-19 vaccination to become advanced service: 2026. updated [accessed: May 15, 2026]. Available at: https://pharmaceutical-journal.com/article/news/pharmacy-covid-19-vaccination-to-become-advanced-service.
139. Royal College of Pharmacy. Community pharmacies in 2024/2025 administered highest number of flu vaccinations outside of pandemic: 2026. updated [accessed: May 15, 2026]. Available at: https://pharmaceutical-journal.com/article/news/community-pharmacies-in-2024-2025-administered-highest-number-of-flu-vaccinations-outside-of-pandemic.
140. Royal College of Pharmacy. Pharmacies deliver almost 16,000 RSV vaccinations as programme found to cut newborn hospitalisations by up to 85%: 2026. updated [accessed: May 15, 2026]. Available at: https://pharmaceutical-journal.com/article/news/pharmacies-deliver-almost-16000-rsv-vaccinations-as-programme-found-to-cut-newborn-hospitalisations-by-up-to-85.
141. NHS England. Get a free RSV vaccination: updated [accessed: May 15, 2026]. Available at: https://www.nhs.uk/nhs-services/vaccination-and-booking-services/get-a-free-rsv-vaccination/.
142. Department of Health and Social Care, NHS England. National Cancer Plan for England: 2026. updated [accessed: May 15, 2026]. Available at: https://www.gov.uk/government/publications/national-cancer-plan-for-england.
143. UK Government. 10 Year Health Plan for England: fit for the future: 2025. updated [accessed: May 15, 2026]. Available at: https://www.gov.uk/government/publications/10-year-health-plan-for-england-fit-for-the-future.
144. Scottish Government. The Vaccination Transformation Programme 2022. updated [accessed: May 15, 2026]. Available at: https://www.publications.scot.nhs.uk/files/pca2022-m-13.pdf.
145. Public Health Wales. Data: updated [accessed: May 15, 2026]. Available at: https://phw.nhs.wales/data/.
146. Public Health Scotland. Scottish Vaccine Update: 2026. updated [accessed: May 15, 2026]. Available at: https://publichealthscotland.scot/publications/scottish-vaccine-update/scottish-vaccine-update-issue-92/surveillance-and-vaccine-uptake/vaccine-uptake/.
147. UK Government. Vaccine uptake guidance and the latest coverage data: 2013. updated 29 January 2026. [accessed: May 15, 2026]. Available at: https://www.gov.uk/government/collections/vaccine-uptake.
148. Scottish Government. Primary care services: 2026. updated [accessed: May 15, 2026]. Available at: https://www.gov.scot/policies/primary-care-services/pharmacy/.
149. Llywodraeth Cymru Welsh Government. Community pharmacy services: April 2024 to March 2025: 2026. updated 12 March 2026. [accessed: May 15, 2026]. Available at: https://www.gov.wales/community-pharmacy-services-april-2024-march-2025-html.
150. Company Chemists' Association (CCA). Flu vaccines administered by community pharmacy in winter 24/25 at highest rate outside of pandemic: 2025. updated [accessed: May 15, 2026]. Available at: https://thecca.org.uk/flu-vaccines-administered-by-community-pharmacy-in-winter-24-25-at-highest-rate-outside-of-pandemic/.
151. Community Pharmacy England. Flu Vaccination Service – Statistics: 2015. updated 30th March 2026. [accessed: May 15, 2026]. Available at: https://cpe.org.uk/national-pharmacy-services/advanced-services/flu-vaccination-service/flu-vaccination-statistics/.
152. NHS England. Business service authority: 2026. updated [accessed: May 15, 2026]. Available at: https://www.nhsbsa.nhs.uk/.
153. UK Parliament. Pharmacy: Question for Department of Health and Social Care: 2026. updated [accessed: May 15, 2026]. Available at: https://questions-statements.parliament.uk/written-questions/detail/2023-12-05/5348.

154. General Pharmaceutical Council. Standards for pharmacy professionals: 2026. updated [accessed: May 15, 2026]. Available at: https://www.pharmacyregulation.org/pharmacists/standards-and-guidance-pharmacy-professionals/standards-pharmacy-professionals.
155. Agency UHS. National minimum standards and core curriculum for vaccination training: 2026. updated [accessed: May 15, 2026]. Available at: https://assets.publishing.service.gov.uk/media/6855b286b46781eacfd71dc9/UKHSA_National_Minimum_Standards_for_immunisation_training_2025.pdf.
156. Scottish Government. PHARMACEUTICAL SERVICES: AMENDMENTS IN RESPECT OF COMMUNITY PHARMACY REMUNERATION ARRANGEMENTS AND FROM 1 APRIL 2025 2025. updated [accessed: May 15, 2026]. Available at: https://static1.squarespace.com/static/6465418b5e15221808eb56ea/t/686cf9834c899a3ae1340390/1751972227475/Circular+PCA%28P%29%282025%2918+-+Remuneration+Arrangements+2025-26+-+8+July+2025.pdf.
157. NHS England. Community Pharmacy Contractual Framework 2019-2024: 2024. updated [accessed: May 15, 2026]. Available at: https://www.england.nhs.uk/primary-care/pharmacy/community-pharmacy-contractual-framework/.
158. Wales DHaC. The Welsh Immunisation System: building a lasting legacy: updated [accessed: May 15, 2026]. Available at: https://dhcw.nhs.wales/news/in-depth/the-welsh-immunisation-system-building-a-lasting-legacy/.
159. Graphnet Transforming Care. National Immunisation Management System retires on a high after processing 279 million vaccination events since 2020.: 2023. updated [accessed: May 15, 2026]. Available at: https://www.graphnethealth.com/knowledge-hub/news/national-immunisation-management-system-retires-on-a-high-after-processing-279-million-vaccination-events-since-2020.
160. NHS England. National Immunisation and Vaccination System (NIVS): 2026. updated [accessed: May 15, 2026]. Available at: https://digital.nhs.uk/services/vaccinations-point-of-care/national-immunisation-and-vaccination-system-nivs.
161. Tessier E, Edelstein M, Tsang C et al. Monitoring the COVID-19 immunisation programme through a national immunisation Management system - England's experience. Int J Med Inform. 2023;170:104974. [Cited: May 15, 2026]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC9780018/.
162. HSC Public Health Agency. Vaccine Management System (VMS): updated [accessed: May 15, 2026]. Available at: https://www.publichealth.hscni.net/services-and-teams/public-health-services/health-protection/vaccination-and-immunisation-6.
163. Medicines & Healthcare products regulatory Agency. Welcome to the Yellow Card reporting site: updated [accessed: May 15, 2026]. Available at: https://yellowcard.mhra.gov.uk/.

International
Pharmaceutical
Federation

Fédération
Internationale
Pharmaceutique

Andries Bickerweg 5
2517 JP The Hague
The Netherlands
-
T +31 (0)70 302 19 70
F +31 (0)70 302 19 99
fip@fip.org
-
www.fip.org