Global pharmacy-based vaccination policy framework

A guide for pharmacists

2025

FIP Development Goals

International Pharmaceutical Federation

Colophon

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Foreword

Vaccination is a key public health intervention and a pillar of primary healthcare and universal health coverage. A successful life-course vaccination programme can improve the health of the whole population through both direct and indirect impacts, such as improving productivity, increasing healthy life expectancy, and reducing long-term disability.

As we are now more than midway through the Immunization Agenda 2030 of the World Health Organization, with targets still unmet, it is important to further strengthen primary health care as the platform for integrated immunisation services. Additionally, immunisation efforts are under growing threat as misinformation, population growth, humanitarian crises, and funding cuts jeopardise progress and leave millions of children, adolescents, and adults at risk.

Pharmacy-based vaccination (PBV) is no longer an emerging model, it is a proven, scalable solution that strengthens public health outcomes, addresses health workforce shortages, and promotes healthy ageing. Across countries and settings, pharmacists have demonstrated their value as accessible immunisers, educators, and advocates. Their integration into vaccination strategies enhances population coverage, reduces disease burden, and supports system-wide sustainability.

FIP launched the "Think Health, Think Pharmacy" campaign in 2024. This global initiative aims to raise awareness of pharmacies as pivotal points for primary healthcare provision and to advocate for universal recognition of the pharmacy profession's unique role in enhancing public health outcomes. A core message of this campaign is that when individuals consider their health needs, they should naturally think of pharmacy as a primary resource. Building on the Statement of policy on the role of pharmacy in life-course vaccination, this perspective extends to vaccination services, reinforcing the idea that when ministers think vaccination, they think pharmacy.

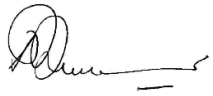
Through FIP's involvement in life-course immunisation, we aim to promote global pharmacy-based vaccination by providing timely, life-saving vaccinations to all ages, strengthen global immunity against preventable diseases, tackle vaccine hesitancy and complacency by driving collaborative action, and champion pharmacists as key players in life-course immunisation.

With this new publication, FIP aims to support member organisations and individual pharmacists with evidence to understand how they can contribute to improving and expanding PBV in their national context. This framework presents a comprehensive, structured approach for integrating PBV into national immunisation efforts. It highlights pillars of life-course immunisation through PBV to include policy regulations and advocacy, workforce development, vaccination equity and promotion, access to vaccination records, and funding models. The framework ensures that PBV services are safely, effectively, and sustainably implemented while aligning with broader public health objectives.

There remains a significant journey ahead, and FIP continues to be committed to supporting this crucial role of pharmacists and advocating for the widespread utilisation of pharmacists to ensure vaccination coverage and improved health systems. I implore you to contextualise the pillars in this framework and promote PBV in your countries.

We hope this report serves as a valuable resource for FIP members, policymakers and healthcare professionals seeking to advocate for stronger vaccination programmes and sustainable funding models that fully leverage pharmacists' contributions to vaccination.

Forward with Pharmacy, Forward with FIP.



Paul Sinclair
President
International Pharmaceutical Federation

1 Introduction

The benefits of vaccination spread far further than keeping a vaccinated individual healthy. Vaccination can help reduce healthcare costs, allow health budgets to be spent in other areas, and promote the economic success of countries by resulting in a population that is more active and productive. It reduces expenditures on direct disease care, antimicrobial resistance and absenteeism, and improves overall productivity.[1]

The limited and inequitable access to vaccines in some countries, as well as vaccine misinformation and hesitancy, remain significant challenges.[2] These present important opportunities for pharmacists because they are accessible to varying populations, particularly the most vulnerable members of society, including older adults, immunocompromised individuals, people living with underlying conditions or pregnant individuals, as well as to hard-to-reach social groups with lower access to healthcare facilities. Educating the public is especially important as there has been a rise in anti-vaccination movements and information over the past few years.[3]

Moving beyond vaccinations for specific age groups and embracing a life-course approach to immunisation, pharmacists are now fully involved in simplifying vaccination pathways and supporting its integration into primary healthcare systems. The pandemic enabled the implementation of structured processes for vaccination in pharmacies and vaccination by pharmacists in many countries. Through the positive public impact, this has been leveraged to advocate globally, regionally and nationally for a more evolutionary role of pharmacists. Recognising this potential, an increasing number of countries have expanded the scope of pharmacists' practice to include vaccine administration, marking a significant contribution to global vaccination efforts.

As pharmacists continue to serve as medicine experts and frontline healthcare providers, their expanded involvement in vaccination is crucial. The role of pharmacists as vaccinators will continue to develop in those countries where such a role existed before or has been initiated due to the pandemic. By addressing existing challenges through informed advocacy and strategic policy development and frameworks, pharmacists' potential to significantly contribute to public health—especially in increasing immunisation coverage—can be fully realised. This will not only enhance individual patient care but also strengthen community health resilience against vaccine-preventable diseases.[4]

Recognising the urgent need to improve vaccine uptake and address other gaps, FIP has expanded its advocacy and policy efforts to advance pharmacists' roles in vaccination promotion and administration at global, regional, and national levels. FIP's work is grounded in the conviction that prevention is better than cure and that improving vaccination coverage through a life-course approach is a global imperative. FIP's vaccination efforts align closely with global strategies such as the WHO Immunisation Agenda 2030, which aims to leave no one behind. Out of the 21 FIP Development Goals (DGs) launched in September 2020, vaccination is linked to 17 goals, indicating the high priority vaccination holds not only for pharmacy and FIP but also for global health. In particular, DG 16 focusing on communicable diseases, is overtly linked to the prevention of this group of diseases, in which vaccination plays a prominent role. A wealth of resources to support and expand pharmacists' roles in vaccination is accessible through the FIP disease prevention website.

To support member organisations and individual pharmacists to improve and expand pharmacy-based vaccination (PBV) in their national context, this framework presents a comprehensive structured approach for integrating PBV into national immunisation efforts. It focuses on how to strengthen the different pillars of life-course immunisation through PBV such as policy regulations and advocacy, workforce development, vaccination equity and promotion, access to vaccination records, and funding models. In addition, this resource includes key recommendations for each pillar, ensuring safe, effective, and sustainably implemented PBV services.

2 Overview of life course immunisation

2.1 Adopting a life course approach to vaccinations with pharmacists as providers

Routine vaccination has helped control and eliminate several infectious and life-threatening diseases over decades, preventing millions of deaths annually. In the face of population growth, continuing urbanisation, rising migration, cross-border movement and displacement of populations, conflict, political instability, natural disasters and climate change, one of the seven strategic priorities of the World Health Organization (WHO) Immunization Agenda 2030 is life-course vaccination and integration to ensure the delivery of immunisation services.[1]

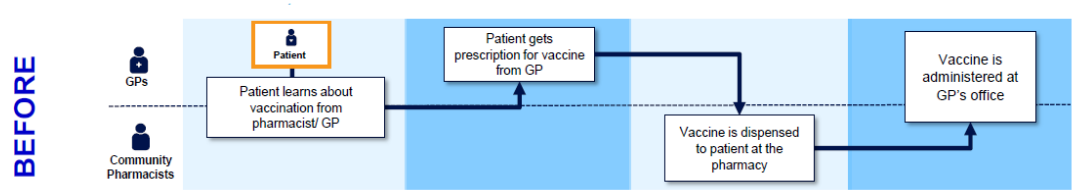
The life-course approach to health recognises that health is not shaped by the present moment, but rather by a series of events that occur throughout life. Life-course vaccination, too, is a continuous process of disease prevention and health promotion that does not stop at a certain age and is just as important during older age as it is in childhood. It begins by shifting the narrative from focusing on children's vaccines to lifetime vaccines, which requires expanding accessibility to and delivery of vaccines from healthcare settings to a wider community setting.[5] Pharmacists have expert knowledge and interact frequently with patients within the community and hospitals, making them uniquely positioned to engage in meaningful conversations and increase vaccination coverage rates, lower the risk of disease spread, build vaccine confidence and address vaccine hesitancy. Harnessing the expertise of pharmacists and community pharmacies in vaccine promotion and delivery is key to implementing the life-course approach to health and to vaccination for several reasons.[5]

2.2 Diversifying and simplifying vaccination pathways

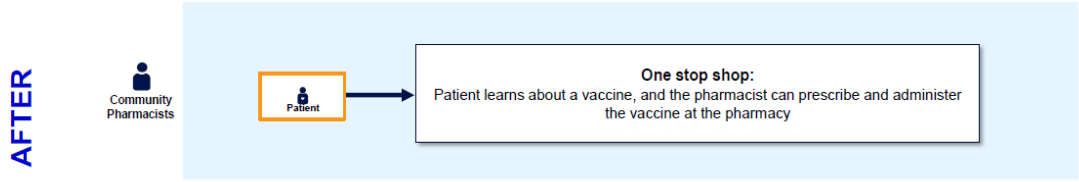
Inaccessibility to vaccination services is one of the barriers to vaccine uptake, especially where physical vaccine centres are not easily accessible. Additionally, the economic burden on patients, especially those who are from impoverished households, is a concern. Both the accessibility and convenience of pharmacies, with most people having a pharmacy just minutes away from their home or workplace, combined with their extended opening hours, make them accessible during lunch breaks, evenings, or weekends, thereby expanding the times when people can get vaccinated.

Simplifying access to vaccination pathways by granting pharmacists the authority to vaccinate eligible individuals without the need for a medical prescription greatly opens opportunities for pharmacies to provide accurate vaccine education and information, integrate services and engage communities in programme design and implementation, and provide standardised healthcare services that contribute to a reduction in vaccine-preventable diseases across all age groups, resulting in equitable access to healthcare and, eventually, better health outcomes. Ultimately, this makes community pharmacies a one-stop location for vaccine awareness and education, prescription, administration and counselling, as seen in Figure 1.

Figure 1: How prescribing and administration authority can simplify the patient's vaccination journey[6]



When pharmacists are not able to vaccinate, the patient journey is complicated and slow, leaving room for patient complacency and error. Barriers to vaccination are much greater than when pharmacists can vaccinate.



When pharmacists can prescribe and administer vaccines, the patient journey to vaccination is simplified and shortened, making vaccination much more convenient for the patient. The patient doesn't need to schedule and attend multiple appointments to get vaccinated.

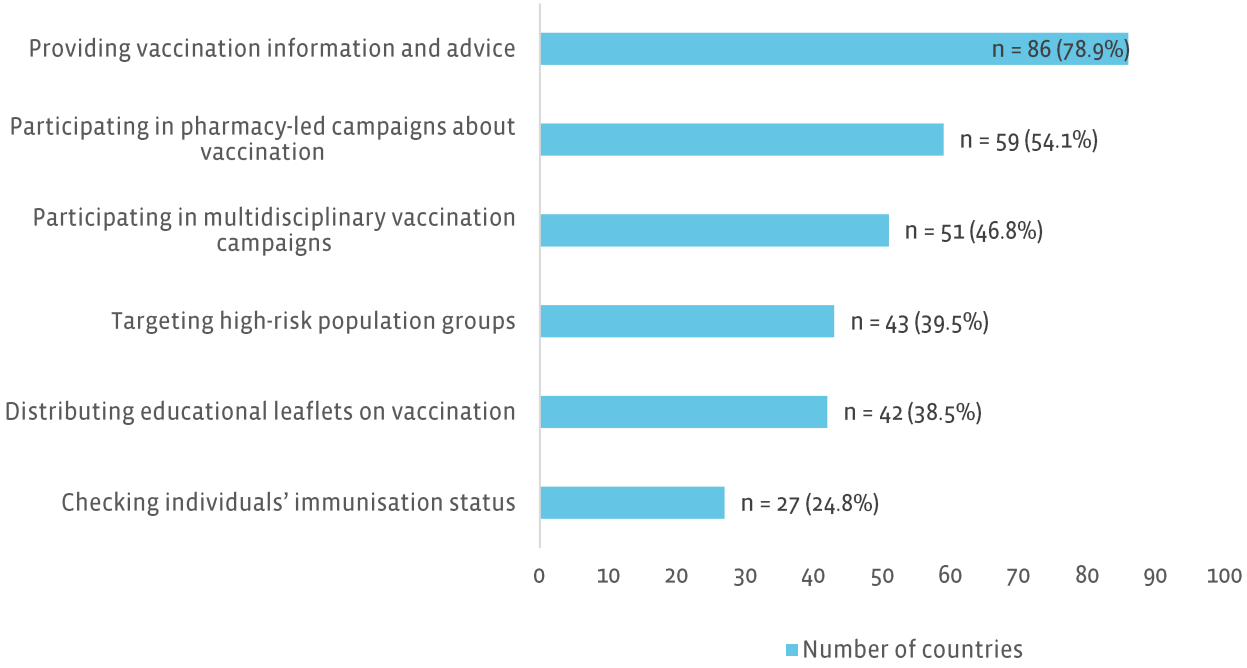
2.3 The role of pharmacists in life-course immunisation

Pharmacists are critical actors in global vaccination strategies. Globally, the role of pharmacists in immunisation continues to evolve to include, but not limited to:[2]

- Advocating vaccination and vaccination programmes, through campaigns and individual interactions;
- Promoting equity of access to vaccination services by targeting hard-to-reach or special-risk population groups.
- Building vaccine confidence and reducing vaccine hesitancy and complacency, and the spread of misinformation;
- Managing the vaccine supply chain, including cold chain management;
- Recording and keeping vaccination records and counselling on vaccination status;
- Dispensing vaccines;
- Prescribing vaccines based on agreed protocols and eligibility criteria;
- Administering vaccines and managing any potential adverse reactions, including anaphylaxis;
- Performing vaccine safety surveillance (pharmacovigilance);
- Conducting vaccine research, development, production, quality control, pre-clinical and clinical studies, and regulatory activities pre- and post-market.

As shown in Figure 2, and according to the 2024 FIP intelligent report, the most common activities conducted by community pharmacists include providing vaccination information and advice, participating in pharmacy-led vaccination campaigns, and collaborating with other healthcare professionals in multidisciplinary efforts.[7] By offering guidance and education, pharmacists help address and overcome vaccine hesitancy and support individuals in making informed decisions, while campaigns and collaborative initiatives extend outreach to diverse and underserved populations. Additionally, these activities improve vaccine reach in diverse populations, particularly those who may not regularly engage with traditional healthcare providers and collaboration between healthcare professionals to enhance immunisation efforts.

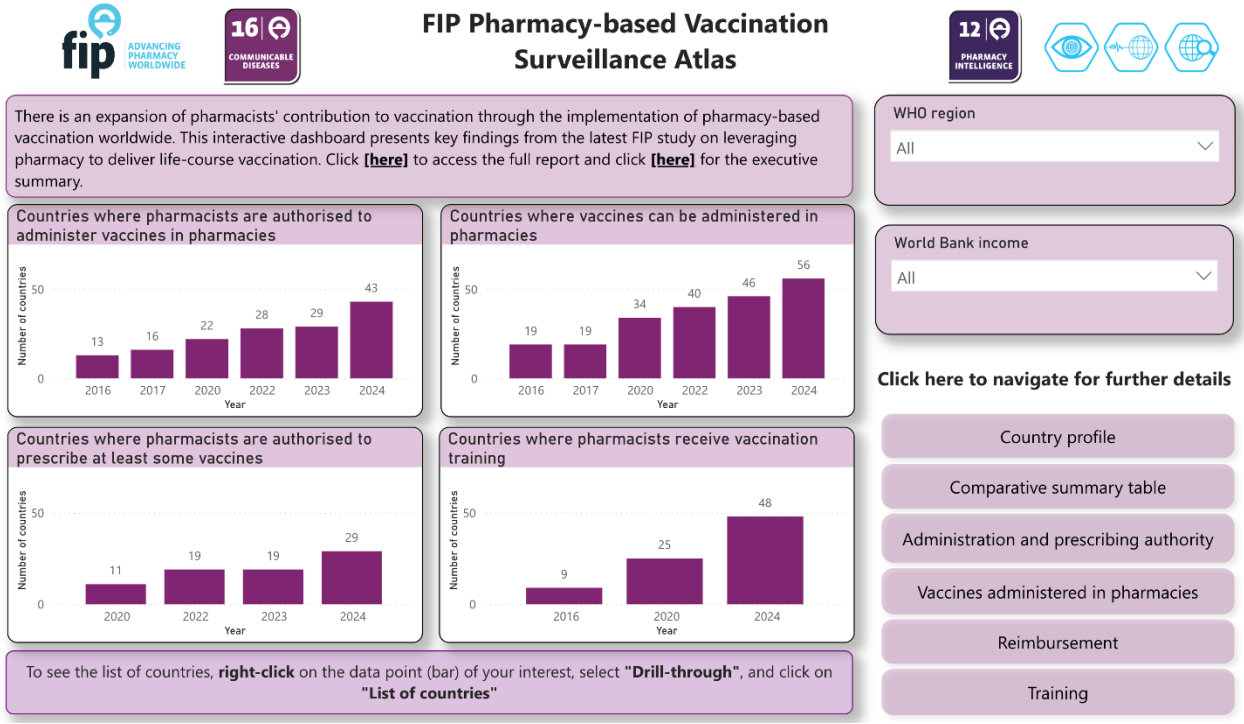
Figure 2: Vaccination advocacy activities in community pharmacies



2.4 Vaccination Surveillance Project

For nearly ten years, FIP has been conducting a surveillance of pharmacists' involvement in vaccination activities. With data provided by FIP member organisations and other sources, the FIP open-access and interactive online atlas provides a wealth of information on pharmacy-based vaccination services around the world. It allows for customised searches per country, region or a selection of countries, and includes data on pharmacists' authority to administer and/or prescribe vaccines, which vaccines are available through PBV, and what remuneration and training models are in place. This can be beneficial for peer learning, and tracking growth and regional milestones.

Figure 3: FIP Pharmacy-based Vaccination Surveillance Atlas (screenshot)



3 Pillars of life course pharmacy-based vaccination (PBV)

3.1 Policy, regulations, and advocacy

FIP has long recognised the importance of supportive policy environments and evidence-based advocacy to enable pharmacists to deliver safe, high-quality vaccination services. Drawing on its publications, policy statements, insight boards, and global data, FIP has generated evidence that demonstrates how a robust legislative framework can transform pharmacies into trusted vaccination sites that improve equity in access to preventive care.

3.1.1 The importance of policy reform in expanding the scope of practice in vaccine provision

FIP's 2023 statement of policy on the role of pharmacy in life-course vaccination underscores the need for enabling regulatory and policy frameworks that integrate trained pharmacists into national immunisation programmes and empower them to administer and prescribe vaccines throughout the life-course.[2]

As health systems face rising pressures from pandemics to ageing populations and increasing health burdens and costs, pharmacists have repeatedly proven their capacity in vaccine provision. Between 2016 and 2024, FIP's longitudinal data from 117 countries revealed that 56 have introduced legislation enabling PBV.[7] While this progress reflects growing policy evolution, many countries continue to operate under fragmented or restrictive frameworks that limit pharmacists' full contribution to vaccination services.

3.1.2 Streamlining regulatory processes to facilitate pharmacist involvement

PBV has evolved through incremental policy changes, from pilot projects and emergency authorisations to comprehensive, system-wide integration. Countries such as Australia, Canada, France, Ireland, Portugal, UK and USA exemplify how progressive policy reforms can gradually expand pharmacists' authority, often beginning with limited pilot schemes to wider vaccine portfolios.[8] This infographic and videos highlight the scope of vaccine administration and prescribing authority in these countries.

Furthermore, health crises, such as the COVID-19 pandemic, often serve as key catalysts, revealing system gaps and prompting emergency or permanent authorisations for pharmacists to vaccinate, as demonstrated in Belgium, Germany, Italy, and Australia.[9]

Ongoing policy reforms and harmonisation efforts, such as in Canada and Australia, are underway, aiming to ensure uniform access to pharmacist-led vaccination services across jurisdictions.[8] Structured accreditation and training systems in South Africa and Argentina enable pharmacists to administer certain vaccines without a prescription under certain conditions.[8]

To explore these developments in depth, FIP's publications on Policy progress, stakeholder engagement and challenges in pharmacist-led vaccination and From policy to practice: Global lessons in advancing pharmacist-led vaccination provide a global overview of how countries have progressed in implementing and scaling pharmacist-based vaccination (PBV).

3.1.3 Collaboration with governments and policymakers to develop supportive policies

Policy reform succeeds only through strong collaboration between stakeholders. The ministries of health are often pivotal in shaping the legislative landscape, while pharmacy organisations serve as advocates and technical advisors. Governments in countries such as Australia, Canada, Portugal and South Africa have played an enabling role by recognising pharmacists as key partners in immunisation delivery.[8, 9]

Interprofessional collaboration is equally important. Early opposition from medical and nurse practitioners, as seen in France, Germany, Israel, and Italy, stemmed from concerns about safety, competency, role overlap and income protection. These issues were addressed through continuous dialogue and shared training initiatives.[8, 9] Embedding immunisation training involving medical specialists, as implemented in the USA,

Switzerland and Ireland, has helped maintain safety and competency standards while strengthening mutual trust and professional recognition.[8]

Pharmacy organisations have been instrumental in advancing pharmacist-led vaccination by engaging directly with policymakers, ministries of health, and other professional bodies to shape enabling legislation and national immunisation strategies. Through persistent advocacy, evidence presentation, and participation in policy dialogues, as seen in Australia, Italy, Portugal and the UK, these organisations have influenced reforms that expand pharmacists' authority to administer and prescribe vaccines.[9] Particularly in countries where pharmacists and the pharmacy workforce have a limited role in vaccination strategies, regulators and policy-makers can be encouraged to use the Pharmacy-led vaccination services: Regulatory self-assessment and implementation tool to develop strategies or enable regulatory frameworks.

Public trust remains one of the most powerful accelerators of policy change. In Australia, Portugal, and the USA, patients increasingly view pharmacies as convenient, safe, and reliable vaccination sites, reinforcing their inclusion in national immunisation efforts.[8]

3.1.4 Integration into health systems and governance

Policymakers, professional societies, and healthcare providers, including pharmacists, must collaborate to improve vaccine uptake and integrate immunisation into broader ageing and chronic disease strategies. The role of governmental support in ensuring statutory and strategic inclusion of pharmacists in vaccine technical committees, mandated by national regulations, unequivocally eliminates any ambiguity, as seen in Portugal and Malta.[10]

3.1.5 Strengthening vaccine provision through monitoring and evaluation efforts

Since 2016, FIP has been actively monitoring the global advancement of pharmacists' roles in vaccination through a series of comprehensive surveys conducted in 2016, 2019, 2022 and, most recently, in 2024. These surveys form part of FIP's surveillance programme aimed at generating robust evidence on the expanding scope of practice in vaccine provision worldwide. By tracking progress across key areas such as policy development, regulatory frameworks, education and training, vaccine administration and prescribing practices, as well as remuneration, FIP supports its member organisations in advocating for the role of pharmacists in improving vaccination uptake and coverage.

Building on these findings and following the 2025 Global Vaccination Summit, FIP encourages its member organisations to take forward the following actions to enhance the impact of PBV within their national contexts:

- Strengthening the collection of vaccination coverage data from pharmacies to inform strategy and performance monitoring;
- Evaluating health system, social, and economic returns from PBV to support advocacy;
- Including vaccination in national and global strategies to combat antimicrobial resistance (AMR) and leverage the role of pharmacists in raising awareness and promoting vaccine uptake to reduce antimicrobial resistance, antibiotic consumption, and associated economic costs;
- Documenting and sharing case studies and outcomes to build the evidence base and drive policy change.

3.1.6 Recommendations towards sustainable and supportive regulation and policy frameworks

Below are key recommendations to advance PBV, strengthen life-course immunisation strategies and foster health systems integration globally. These recommendations emerged from the discussion held during the FIP Global Vaccination Summit in March 2025.[4]

1. Expand legislative and regulatory authority for pharmacists to prescribe and administer a broader range of vaccines.
2. Sustain and expand legal frameworks that enable pharmacists to provide vaccination services as part of routine care.
3. Embed PBV in national immunisation strategies and public health legislation.

4. Recognise pharmacists as authorised immunisers in both emergency and regular vaccination programmes.
5. Harmonise adult vaccination calendars and policies across jurisdictions, particularly in federated or decentralised health systems.
6. Adopt frameworks for collaborative vaccination campaigns that formally include pharmacists.
7. Include pharmacists in National Immunisation Technical Advisory Groups (NITAGs) and relevant vaccination policy and advisory bodies.
8. Integrate pharmacy-based services into national vaccination strategies and pandemic preparedness plans.
9. Support interprofessional collaboration frameworks that recognise pharmacists as core contributors to immunisation delivery.
10. Develop coordinated care and data-sharing models between pharmacists, GPs, and public health authorities.
11. National and regional stakeholders use the FIP policy statement on the role of pharmacy in life-course vaccination as strategic guidance for developing and implementing sustainable, pharmacy-led immunisation programmes.

Further insights into these outcomes and policy directions can be found in FIP Global Vaccination Summit 2025: Key outcomes and policy for pharmacy-based vaccination.

FIP continues to advance these efforts by monitoring policy developments and facilitating peer learning through the sharing of best practices. Member organisations are encouraged to translate these global frameworks into local action through advocacy and policy dialogue within their national contexts.

3.2 Education and training for sustainable vaccine impact

3.2.1 The importance of education and training programmes for pharmacists

Implementing comprehensive education and training programmes for pharmacists is essential to achieving sustainable impact in vaccination services across all practice settings. These programmes begin at the undergraduate level and extend through continuous professional development (CPD), ensuring that pharmacists are equipped with the necessary knowledge, skills, and competencies to deliver vaccinations safely and effectively.

Evidence from the Leveraging pharmacy to deliver life-course vaccination: An FIP global intelligence report demonstrates rapid global integration of vaccination training within pharmacy practice. In 2024, pharmacists in more than half (64 of 116: 55%) of reporting countries received some form of vaccination training, compared with only 12 countries in 2016. The number of countries incorporating vaccination training at the undergraduate level increased from 6 to 19, while those requiring post-registration or professional development training rose from 11 to 41.[7] This growing trend reflects global recognition of the critical role of pharmacists in immunisation, with 100% of countries where pharmacists are authorised to vaccinate mandating education and training as a prerequisite.

Post-pandemic, the increase in vaccination training awareness has served as an enabler for vaccination uptake among pharmacists and expanded confidence in recommending vaccines.[11] International data confirm that embedding vaccination competencies across all stages of pharmacy education is now a global priority.[1] This ongoing professional development reinforces pharmacists' contribution to public health, broadens access to vaccines, and supports global efforts to control vaccine-preventable diseases.[12] Investing in education and training strengthens the quality, safety, and sustainability of vaccination services, enabling pharmacists to protect and promote public health more effectively.

3.2.2 Collaboration with educational institutions to develop robust training modules

Several global initiatives and structured programmes, such as those at the Pharmaceutical Society of Ireland in partnership with the Irish Institute of Pharmacy, and similar efforts in Canada, have demonstrated that pharmacist-delivered vaccination achieves high patient satisfaction and strong compliance when pharmacists are properly trained, helping to advance the pharmacist's role and continue expanding their

contribution to public health services.[13,14] These initiatives have advanced pharmacists' contribution to public health by ensuring competence in assessing vaccination needs, managing adverse reactions, and providing evidence-based counselling. Integrating vaccination modules into pharmacy education ensures all graduates enter the workforce with foundational immunisation competencies, supporting long-term sustainability of vaccination services.[15]

Through continuous professional development (CPD), pharmacists remain prepared to address emerging public health challenges and communicate effectively to build patient trust and vaccine confidence. The International Pharmaceutical Federation (FIP) emphasises harmonised training standards and integration of vaccination competencies throughout all stages of pharmacy education.[13] FIP supports a variety of programmes aimed at enhancing vaccination knowledge and skills across all levels of pharmacy education, from foundational training to continuous professional development. This comprehensive approach empowers pharmacists worldwide to provide safe and effective vaccination services in diverse healthcare settings.

a. FIP Provision and partnerships programme

The FIP Provision and partnerships programme provides FIP members and the wider profession with professional development opportunities. Through partnerships and FIP-developed courses and programmes, it supports members to avail of quality education and training, promote workforce development, and support equitable access to CPD.

The FIP Seal is awarded to education and training programmes that demonstrate excellence and alignment with FIP's mission and Development Goals, recognising those that meet high global standards of quality and relevance. Alongside the FIP Seal, the programme features FIP CPD Bites (concise learning modules that support continuous professional growth), FIPx courses which provide comprehensive online training to build essential competencies, and Knowledge and Skills Reference Guides which define the core capabilities required of pharmacy professionals. Together, these initiatives strengthen quality assurance, relevance, and consistency in pharmacy education and workforce development worldwide.

b. FIP Seal

The FIP Seal is awarded to programmes following a structured self-assessment against FIP's criteria that reflect FIP's core values—professional development, quality CPD, and progress towards FIP's Development Goals.

It serves as both a symbol of trust and a commitment to excellence and fostering collaboration between CPD providers and members to meet evolving professional needs.

To advance pharmacy-led vaccination, Seal-awarded courses are designed to strengthen competence in delivering safe, informed, and effective immunisation services globally.

Examples of FIP Seal-approved courses include:

i. Pharmacy-Based Immunisation Delivery International Certificate Training Programme (American Pharmacists Association): Equips pharmacists with nationally standardised skills to deliver immunisation services safely and effectively, enhancing their contribution to public health.
ii. Vaccine and Injectable Medicines Administration course (National Association of Pharmacies): Provides practical training on administration techniques, cold chain management, and patient safety.
iii. Impetus to flu vaccination uptake and coverage (Omnicuris): Strengthens pharmacists' capacity to lead influenza vaccination campaigns and improve uptake.
iv. COVID-19 Education for Pharmacists (Immunize.io): Video-based series on COVID-19 vaccines, safety, and communication strategies, supporting pharmacists worldwide.
v. Mpox and Vaccinology Training (AKSUMIA Global Learning Solutions): Specialised training on Mpox vaccination and management, equipping pharmacists to address emerging infectious diseases.

c. FIP Continuing professional development (CPD) Bites/videos

The FIP CPD Bites initiative reflects FIP's commitment to supporting pharmacists in lifelong learning. These concise, practice-oriented learning videos expand pharmacists' knowledge in key public health areas, particularly vaccination and pharmacy-led disease prevention.

i. Improving HPV-related cancers and diseases education among pharmacists

This CPD Bites series strengthens pharmacists' understanding of HPV immunisation, its public health relevance, and communication strategies for improving vaccine acceptance.

- Episode 1: Introduction to HPV and HPV-related diseases explains HPV's link to various cancers and the preventive potential of vaccination.
- Episode 2: HPV vaccination mechanism, effectiveness and safety outlines vaccine action, efficacy, and safety to reinforce pharmacists' confidence.
- Episode 3: Identifying at-risk populations and overcoming barriers addresses social and cultural barriers and strategies to improve uptake.
- HPV vaccine and HPV-related diseases: a communication guide is a practical tool to help pharmacists initiate patient conversations and build trust.

ii. Addressing vaccine fatigue, complacency, and confidence

This CPD Bites series equips pharmacists with evidence-based tools to recognise vaccine fatigue and complacency, thereby strengthening community trust.

- Episode 1: What can pharmacists in low- and middle-income countries do about adult vaccination mistrust? Examines causes and outlines steps to rebuild public confidence.
- Episode 2: What is vaccine complacency and fatigue and how can pharmacists address them among at-risk adults? Explores behavioural trends and practical strategies.
- Episode 3: How can pharmacists build confidence in adult vaccination? Highlights empathy-driven communication and trust-building approaches.

d. FIP "Let's talk about vaccines!"

The campaign strengthens pharmacists' capacity to engage communities effectively on immunisation. Supported by a tailored CPD Bites series, it enhances pharmacists' communication and clinical confidence.

- Episode 1: Pharmacists' roles in vaccination illustrates pharmacists as accessible providers who increase immunisation coverage.
- Episode 2: Benefits of influenza vaccination in special populations underscores the importance of protecting vulnerable groups.
- Episode 3: Benefits of pertussis vaccination highlights pharmacists' contributions to disease prevention and public education.

e. FIP Knowledge and Skills Reference Guide for Professional Development in Vaccination Services (2025)

The FIP Knowledge and Skills Reference Guide (2025) demonstrates FIP's commitment to advancing PBV. Building on prior data and initiatives, it provides structured competency-based guidance on the knowledge and skills required for effective vaccination practice.

It categorises knowledge and skills into broad, core, and specific domains covering vaccine science, administration, patient care, safety, regulatory compliance, and emerging challenges such as digital health and vaccine hesitancy.
The guide links with national legislation, professional codes, and certification considerations, making it an essential resource for practitioners, educators, students, and regulators.

As pharmacists assume expanding roles in public health, their education must equip them with the competencies needed for safe and effective immunisation. Embedding vaccination skills from undergraduate training through to CPD ensures readiness for evolving health challenges. Investing in pharmacist education ultimately strengthens both professional growth and the sustainability of global vaccination programmes.

3.2.3 Recommendations towards sustainable workforce competencies

The following recommendations outline key actions to enhance pharmacist preparedness and ensure the quality, relevance, and sustainability of professional development and training:[4, 16]

1. Integrate immunisation-related content within undergraduate pharmacy curricula to establish a strong foundation of vaccination knowledge, skills, and confidence.
2. Implement structured, competency-based CPD frameworks to ensure pharmacists remain current with evolving vaccine science, safety guidelines, and delivery models.
3. Expand interprofessional education (IPE) initiatives to enhance collaboration between pharmacists and other healthcare professionals, improving vaccination coordination and public trust.
4. Encourage CPD providers and accreditation agencies to adopt the FIP Seal, ensuring vaccination-related training programmes meet international standards of quality and align with FIP's global mission.
5. Mandate accredited training and certification for pharmacist-administered vaccination services to guarantee consistency and patient safety.
6. Invest in ongoing professional development that reflects advances in vaccine technology, delivery models, and public-health priorities.
7. Adopt good-practice frameworks (e.g., SOPs, flowcharts, technical manuals) to support safe, efficient, and high-quality vaccine delivery.

Embedding vaccination competencies throughout pharmacy education and professional development will ensure a resilient, capable workforce ready to meet future immunisation and public-health challenges.

3.3 Vaccination equity, awareness, and promotion

In 2021, during the COVID-19 pandemic, the World Health Organization (WHO) set a goal for 70% global vaccination coverage by mid-2022, underscoring a commitment to protect communities worldwide through comprehensive immunisation efforts.[17] Ensuring equitable access to vaccines for all individuals is a critical global health priority. It indicates that everyone, regardless of socioeconomic status, race, ethnicity, geographic location, or other health factors, should have an equal and fair chance to receive vaccination.[18]

3.3.1 Guidelines for community engagement and education

To improve vaccination through different strategies and services, a series of comprehensive resources to support pharmacists is available from the 'Advancing pharmacy practice in vaccination' series, including unlocking vaccine confidence, reaching at-risk and vulnerable groups, and preparing for winter. The reports offer practical guidance to help pharmacists address vaccine hesitancy, improve patient education, and play an effective role in immunisation efforts worldwide. Additionally, the toolkit for pharmacists titled Vaccination of special risk groups provides concise, practical guidance designed to support the pharmacy workforce in delivering effective immunisation services to populations at increased risk of complications from vaccine-preventable diseases. It covers key disease states, their impact on specific vulnerable groups, and the benefits of vaccination tailored to each condition. The toolkit incorporates the most current immunisation recommendations from the World Health Organization and other reputable global organisations, while acknowledging that vaccination guidelines may vary by country or region. It encourages

pharmacists to adopt a life-course approach, ensuring individuals receive vaccines appropriate to their age and clinical status.

Through the report Vaccination: Benefits beyond specific disease prevention, pharmacists can understand the activities and tools that can be utilised to promote healthy ageing in the practice setting, as well as ways to strengthen resource utilisation and implementation strategies. As trusted healthcare providers, pharmacists are encouraged to educate patients on the benefits and safety of vaccines, engage in public awareness initiatives, and actively participate in screening and vaccination programmes. Their advocacy extends beyond patient encounters, involving community engagement and collaboration with health authorities to ensure vaccine accessibility and equity. This evidence-based advocacy by pharmacists is instrumental in increasing vaccination rates, correcting misinformation, and sustaining public confidence in immunisation programmes.[19] Additional resources and updates are available on FIP's dedicated Vaccine Equity website, which engages pharmacy professionals in promoting equitable vaccine access and advancing public health.

3.3.2 Building vaccine confidence and addressing hesitancy, complacency, and fatigue

Vaccination acceptance varies along a perception continuum. This continuum ranges from people who absolutely refuse to get a vaccine, to intermediate degrees of hesitancy and concerns, to individuals who fully accept and support immunisation. It is important for pharmacists to understand where each person stands in the perception continuum and adopt a suitable communication strategy.[20]

The FIP Vaccination handbook for pharmacists provides guidelines on the procedures, safety aspects, common risk points and frequently asked questions about vaccines and their administration. It supports individual pharmacists in understanding how they can contribute to improving vaccination coverage through a range of services, ranging from patient education and advice to logistical roles and the administration of vaccines.

Furthermore, the "Acknowledge, Bridge, Communicate" framework (Table) can be used to provide the correct information regarding vaccinations, while maintaining a positive attitude towards the individual and maximising the impact of the information content.[20] Building vaccine confidence and communicating vaccine value: A toolkit for pharmacists also provides support to communicate the value, efficacy and safety of vaccines and address concerns about, or the rejection of, vaccines.

Table 1. "Acknowledge, Bridge, Communicate" framework[20]

Reasons not to vaccinate	Acknowledge	Bridge	Communicate
"Vaccines contain mercury"	That is not fully correct	More accurately	The mercury-based preservative thimerosal, once used to prevent bacterial and fungal contaminations, is no longer used in children's vaccines, except some types of flu shots. The WHO has also concluded that the amount and form of mercury in thiomersal-containing vaccines does not pose a cumulative risk of toxicity.
"Vaccines cause disease"	That's not quite right	Let me explain	Most vaccines cannot cause disease because they do not contain any living virus or bacteria. There are some vaccines that contain weakened live bacteria or a virus, but even these have not been described to cause the full onset of a disease, except on very rare occasions, a weaker form of disease with mild symptoms.
"Polio is no longer an issue in this country"	That is not what I know	What I do know is	That reductions in vaccination rates can lead to infectious diseases returning: maintaining high vaccination rates prevents infectious diseases from spreading and protects those still susceptible through herd immunity.
"Vaccines cause autism"	There is no evidence for that	What data show is	That there is extensive evidence that vaccines are not linked to increased incidence of autism.
"No one in my son's school had this disease"	That's true	But the real point is	That it likely happened because most children were vaccinated, and the few who could not be immunised were therefore protected through herd immunity.

To effectively navigate communication around vaccine misinformation, pharmacists are urged to adopt evidence-based communication strategies in building vaccine confidence and overcoming hesitancy, such as the ASPIRE framework. ASPIRE is a six-step approach designed to guide pharmacists to foster open, empathetic conversations that build trust and empower patients to make informed decisions.[21]

3.3.3 Recommendations for vaccine equity and promotion

The following recommendations outline key actions to enhance vaccine equity and awareness:[4]

1. Leverage pharmacies to improve vaccine access for rural, migrant, underserved, refugee, and high-risk populations.
2. Engage actively in vaccination advocacy, education, and administration to improve vaccine confidence and coverage among at-risk and underserved populations.
3. Remove regulatory barriers and develop enabling policies that allow pharmacists to prescribe and administer vaccines across the life-course, including for special-risk groups, to ensure equitable access to vaccination services.
4. Foster collaboration among pharmacists, healthcare providers, policymakers, and stakeholders to maximise vaccination coverage, equity, and public health impact.
5. Recognise pharmacists' unique role in life-course immunisation by supporting their efforts to reach special-risk groups and promote vaccination across all stages of life.
6. Position pharmacists as trusted communicators in vaccine campaigns to address misinformation and hesitancy both within pharmacies and in the communities they serve.
7. Support multichannel, culturally appropriate communication strategies led by pharmacists to promote vaccine understanding and acceptance.
8. Build public and provider trust in new vaccines through clear, transparent, and evidence-based communication.
9. Promote pharmacy-based vaccine delivery as an approach to increase confidence, reduce hesitancy, and overcome social barriers.

3.4 Access to data and vaccination records

3.4.1 The importance of access to data and vaccination records

Reliable access to vaccination data and records is crucial to achieving seamless, life-course immunisation. Undoubtedly, vaccination services provided in pharmacies provide valuable data that is beneficial for strengthening national immunisation recording systems, and tracking vaccination coverage rates and populations. It is essential for all primary healthcare professionals, including pharmacists, to have access to reliable data about the vaccines a patient has received, enabling them to advise the patient appropriately and take measures, such as providing vaccination or referring the patient to another provider.

Self-reported vaccination history might not be sufficient or reliable enough for pharmacists to advance vaccination coverage on this basis alone.[20] Within community pharmacies, immunisation documentation, including full access to vaccination records (reading), recording administered vaccines in a shared immunisation registry (writing), and reporting capabilities, enables pharmacists to identify individuals who have not received recommended vaccines according to the national guidelines or who may require booster doses and prevent duplication of services.

With trends for countries with limited access to vaccination records remaining unchanged for the last nine years, pharmacists' ability to provide tailored advice accordingly and optimise vaccine delivery will also be limited.[7] This may also result in inconsistent communication between pharmacists and other healthcare providers regarding individuals' vaccination status. Collaborative and interoperable systems that facilitate the sharing of vaccination data between pharmacies and other healthcare providers offer many benefits, such as:

1. Enabling timely reporting of vaccination services entry and adverse effects;
2. Facilitating consultation on vaccination history;
3. Facilitating appointment reminders;
4. Potentially reducing the risk of both under- and over-vaccination among patients; and,

5. Ensuring a people-centred health ecosystem.

3.4.2 Implementing secure electronic record-keeping systems

Vaccine recommendations increase when pharmacists can leverage the information system; therefore, the unavailability of formal record systems should not be a hindrance to documenting vaccine services in the pharmacy. Pharmacies should start with what is available and consider growth opportunities. Physical paper copies of vaccine records made it easier for patients to keep this information accessible for different healthcare providers, and this still happens in some territories or jurisdictions of the world. For digital records, a secure, unified electronic record-keeping system that is accessible to different providers would be a huge enabler of collaboration in the provision of vaccination services. Watch FIP's digital event on Enabling life-course immunisation through pharmacy-based vaccination: Access to data and vaccination records for more insights.

3.4.3 Recommendations towards equitable access to vaccination records

Recommendations for engaging health authorities to implement secure electronic record-keeping systems within pharmacy settings should include:[4,5]

1. Invest in interoperable digital infrastructure that includes pharmacies as frontline immunisers and core data contributors.
2. Enable real-time sharing of vaccination data between pharmacies, general practice, and national health systems.
3. Reduce administrative burden through digitised consent, scheduling, and reporting tools.
4. Use digital platforms for proactive patient identification and targeted outreach.
5. Ensure clear data governance that upholds privacy and addresses challenges such as resistance to change and any data safety concerns.
6. Enable full access to the patient's basic clinical information and previous vaccination records.
7. Uphold national immunisation tracking that allows cross-state patient information sharing when needed.
8. Formal training in immunisation services and vaccination records to ensure that all pharmacists are well equipped with the knowledge and skills to access and report patient data.
9. Good communication with health authorities to improve current systems when necessary.
10. Utilising surveys to get feedback on the contribution of pharmacists to immunisation efforts.

3.5 Remuneration and sustainable funding models

3.5.1 The importance of sustainable reimbursement models for PBV

The sustainability of PBV depends on how these services are financed and how pharmacists are remunerated. However, the latest FIP report on funding models and economic and societal impact of pharmacy-based vaccination highlights that, unlike physician-administered vaccines integrated into national immunisation programmes, PBV often lacks standardised funding mechanisms. This absence of structured reimbursement undermines both the scalability and sustainability of these services, particularly in low- and middle-income countries where pharmacists rely on out-of-pocket payments.[22]

Budget constraints, competing healthcare priorities, and resistance from other healthcare professionals further hinder policy adoption on funding mechanisms. These barriers underscore the need for integrated, fair, and sustainable reimbursement mechanisms for PBV as an essential public health intervention.

3.5.2 Variability of reimbursement mechanisms: Insights from country case studies

Chapter 9 from the latest FIP report[22] suggests that PBV financing is characterised by mixed or hybrid funding models, combining public reimbursement, private reimbursement, and out-of-pocket payments. In Australia,

Portugal, and the UK, PBV has been integrated into publicly funded vaccination programmes. Pharmacies are reimbursed directly by government health schemes or national immunisation programmes for both vaccine administration and the vaccine cost itself, thereby reducing financial barriers for patients and improving vaccination uptake and coverage rates. In Australia, for example, the National Immunisation Programme Vaccination in Pharmacy (NIPVIP) provides government reimbursement for vaccines delivered through community pharmacies, plus additional payments for outreach or aged-care delivery. Similarly, in Canada, provincial governments reimburse pharmacists through public health plans, though rates and eligibility vary by province.

In contrast, hybrid reimbursement models, as shown in the USA, rely on multiple funding streams, including public reimbursement (Medicare, Medicaid, Vaccines for Children), private reimbursement, and out-of-pocket payments. Reimbursement rates in the USA differ among insurers and across states, and certain vaccines require patients to pay directly. In Costa Rica, PBV remains almost entirely private, with no established reimbursement mechanism, and pharmacists primarily play roles in distribution, storage, and monitoring rather than direct vaccine administration.

A further common feature emerging from all case studies is the move toward multi-stakeholder funding partnerships. South Africa and Portugal highlight public-private or municipal-national collaboration as key enablers of PBV expansion and sustainability. In South Africa, pharmacists vaccinate within both public and private sectors: public-sector vaccines are financed by national or provincial budgets, while private-sector services are funded through medical insurance or out-of-pocket payments. In Portugal, evolving partnerships between pharmacies and the NHS have enabled broader population access to seasonal influenza and COVID-19 vaccines.

Moreover, all case studies underscore that the COVID-19 pandemic acted as a catalyst for broadening pharmacists' vaccination authority and accelerating the inclusion of PBV in public funding mechanisms. Emergency authorisations and temporary public financing during the pandemic have led, in many countries, to permanent policy reforms that formally recognise pharmacists as vaccination providers and ensure continued reimbursement through public health systems.

In addition to the case studies from the report, this infographic captures the funding and reimbursement models for PBV across seven countries (Australia, Canada, France, Ireland, Portugal, the UK, and the USA).

3.5.3 The economic implications of PBV on the healthcare system

PBV not only improves access but also generates measurable economic savings and health system efficiencies. Evidence from multiple countries demonstrates that pharmacist-led vaccination reduces overall healthcare expenditures through three main mechanisms: fewer hospitalisations, fewer outpatient visits, and enhanced workforce productivity.[22]

Some examples, as summarised in the report, include:[22]

- In Canada, a 3% increase in pharmacy-based flu vaccination coverage led to CAD 717,000 (EUR 457,854) in reduced hospital costs.
- In Switzerland, pharmacist-delivered flu vaccines prevented over 17 primary care visits and 0.33 hospitalisations per 100,000 people per season, yielding savings of CHF 143,021 (EUR 148,959) annually.
- In the USA, the inclusion of pharmacies in influenza vaccination strategies prevented 11.9 million cases and saved over USD 1 billion (EUR 918.15) in hospitalisation costs.

Beyond these direct cost savings, PBV contributes to indirect economic benefits, including lower absenteeism, improved workplace productivity, and reduced disease-related economic losses. Cost-benefit analyses in several countries show that every unit of currency invested in pharmacist-administered vaccination yields multiple units of economic return when avoided medical costs, productivity gains, and societal benefits are accounted for.[22]

By generating both direct and indirect savings, PBV helps strengthen health system resilience by alleviating pressure on general practitioners and emergency departments, especially during seasonal outbreaks or pandemics.

3.5.4 Recommendations towards sustainable funding models

Below are key recommendations for establishing sustainable funding models for vaccination services. These recommendations emerged from the discussion held during the FIP Global Vaccination Summit in March 2025.[4]

1. Establish sustainable, publicly funded remuneration models for PBV services.
2. Ensure equal remuneration for pharmacists delivering vaccination services, comparable to other healthcare professionals.
3. Introduce third-party funding and innovative financing mechanisms (e.g., social impact bonds, ringfenced prevention funds).
4. Expand public funding to cover a broader range of vaccines delivered in pharmacies.
5. Incentivise pharmacy participation in national immunisation programmes and outreach campaigns.
6. Align funding models with long-term prevention outcomes and broader public health value.

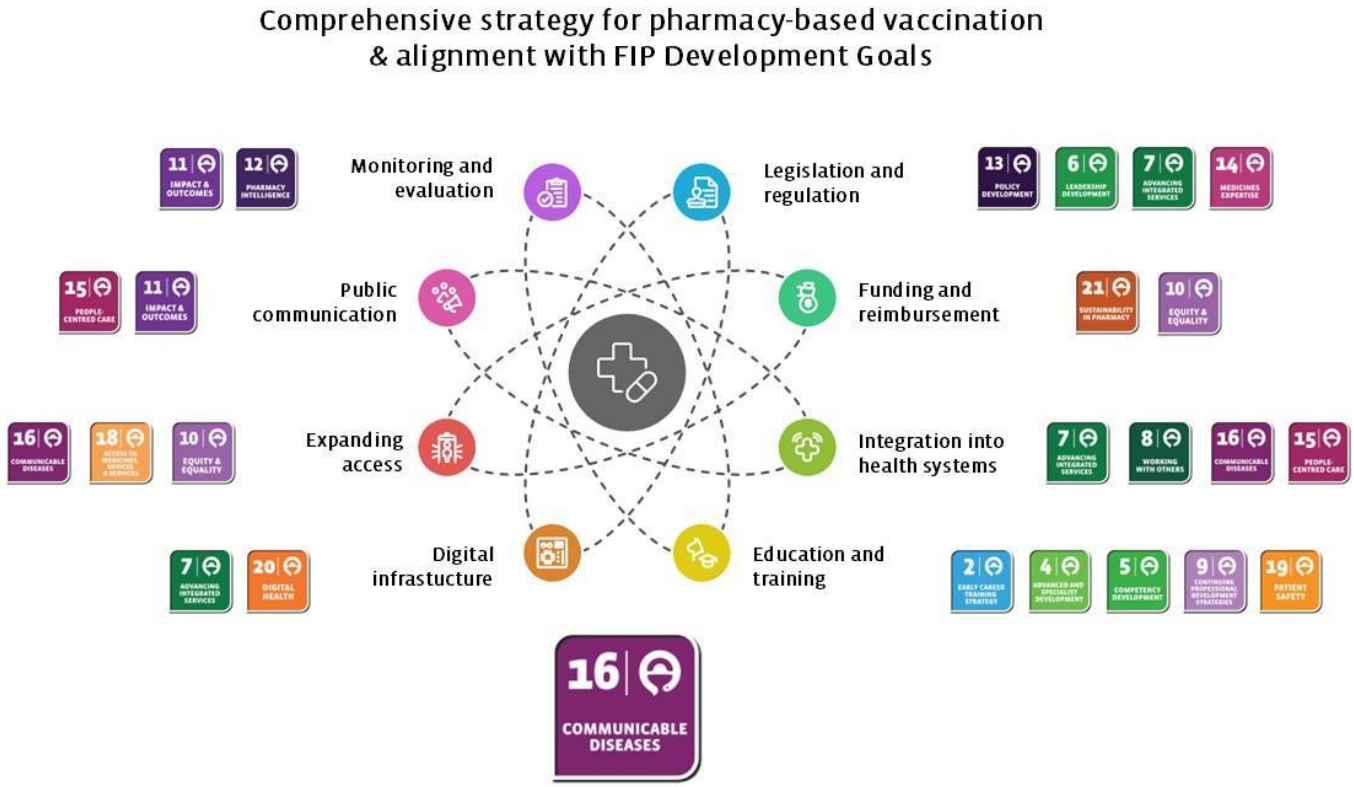
Further insights into the summary of policy and advocacy recommendations can be found in FIP Global Vaccination Summit 2025: Key outcomes and policy for pharmacy-based vaccination.

Collectively, these measures can transform PBV into a fully integrated, financially sustainable service within national immunisation strategies. Future strategies should prioritise harmonising reimbursement mechanisms, incentivising pharmacy participation in national immunisation programmes, and embedding PBV as a core component of public health interventions. As evidence shows, investing in PBV not only strengthens healthcare systems but also delivers substantial social and economic returns.

4 Conclusions

As health systems transition from emergency responses to long-term public health strategies, pharmacist-led vaccination offers a scalable and effective means of increasing vaccine coverage, especially in underserved populations. Achieving this requires not only regulatory and financial support but also sustained investment in infrastructure and trust-building across the healthcare continuum. Where these elements are addressed, pharmacists will continue to play a central role in advancing public health goals.

This framework and its section recommendations will provide a roadmap for national and international stakeholders to advance PBV and strengthen life-course immunisation strategies globally.



FIP is committed to transforming vaccination by accelerating vaccine equity, access and sustainability through life-course immunisation. By empowering the pharmacy workforce, we strengthen public health worldwide.

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