

FIP Global Vaccination Summit 2026

Key insights for integrating NCD care into pharmacy-based vaccination

May 2026



FIP Development Goals



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Federation

Colophon

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Recommended citation

International Pharmaceutical Federation. FIP Global Vaccination Summit 2026: Key insights for integrating NCD care into pharmacy-based vaccination. The Hague: FIP; 2026

Cover image

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Foreword

It is my great pleasure to write the foreword of the third FIP Global Vaccination Summit that was held in The Hague, The Netherlands, on 12th and 13th March 2026. Vaccination is a highly cost-effective intervention that improves the health of the entire population through many impacts. While this public health intervention has been successful over decades, vaccination coverage has plateaued over the last decade. The global health landscape continues to face unprecedented pressures and rapid change from the rising burden of chronic diseases, emphasising the relevance of vaccination even further. Improving vaccination coverage remains a global public health priority, particularly among adult populations where coverage often lags behind national targets. These connections create unique opportunities for pharmacists to support more integrated and proactive patient care.

In this context, pharmacy-based vaccination (PBV) has gained increasing relevance and importance as an effective strategy to expand access to vaccination services and improve vaccine uptake and coverage rates. 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. But the opportunity goes even further. By integrating vaccination into chronic disease management, medication reviews, and patient counselling, pharmacy can become more instrumental in life-course prevention and multi-NCD management.

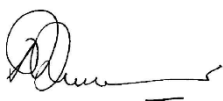
This year's summit brought together a global community of experts, thought leaders, and pharmacy professionals with a shared commitment to advancing PBV and strengthening the role of pharmacy in immunisation. Over the two days, discussions showcased evidence and best practices, explored how vaccination can support wider public health goals in NCD prevention and healthy ageing. The shared goal of our discussion was to exchange knowledge and collaborate on scalable, sustainable solutions to strengthen pharmacists' roles in vaccination as a cornerstone of preventive health.

Older adults and people living with NCDs must be the target of proactive and systematic actions by healthcare professionals to ensure they are vaccinated against all diseases that may impact their health in a severe and largely preventable way. Pharmacists are one of the most easily accessible healthcare professionals and play a huge role in improving vaccination coverage rates among this population, who are more vulnerable to severe forms of vaccine-preventable diseases and have a higher risk of hospitalisation, loss of functional ability and even death.

I would like to extend my sincere gratitude to Pfizer for their support through their unrestricted support for this summit. Your commitment to advancing vaccine equity and access is invaluable, and we appreciate your efforts throughout the years.

FIP remains committed to working with its member organisations and all individual pharmacists around the world to ensure the optimisation and expansion of pharmacists' scope of practice in PBV to better serve patients and health systems and improve the well-being of our communities. With this report, I invite you to join us. I trust you will find the report valuable and inspiring.

Forward with Pharmacy, forward with FIP!



Paul Sinclair
President
International Pharmaceutical Federation (FIP)

Acknowledgements

This summit was supported by unrestricted funding from Pfizer.



1 Background and objectives

Background

Following the momentum and outcomes of the 2025 Global Vaccination Summit, the International Pharmaceutical Federation (FIP) organised the Global Vaccination Summit 2026, on 12th and 13th March 2026 at The Hague, Netherlands.

The summit took a region-specific approach to explore differences in income levels, population needs, regulatory environments, and practice challenges, focused on the critical intersection between vaccination, prevention, and the growing burden of non-communicable diseases (NCDs), with particular emphasis on:

- Hypertension, cardiovascular disease, and diabetes.
- Ageing populations and immunisation across the life course.
- Managing pharmacy-based vaccination (PBV) through comorbidities and multi-NCD management.
- Lung and respiratory diseases, aligned with global respiratory NCD priorities.

Objectives

1. To strengthen pharmacy-based vaccination (PBV) in the context of co-morbidities and multimorbidity, addressing implementation, collaboration and sustainable remuneration.
2. To reinforce the role of pharmacy in prevention-focused health policy, advancing equitable access to immunisation across diverse settings.
3. To showcase the impact of vaccination in preventing and managing NCDs, highlighting innovation and opportunities for the pharmacy workforce in integrated care.
4. To share global and regional best practices from integrating vaccination into NCD strategies, including regulatory, policy, and service delivery approaches.
5. To focus on ageing and high-risk populations, improving patient identification, confidence, and life-course vaccine uptake.



Summit participants

2 List of participants

FIP Board		
Dr Catherine Duggan	CEO	The Netherlands
Prof Nadia Al Mazrouei (virtual attendance)	Vice President	UAE
Ms Raquel Martínez Garcia		Spain
Dr Prosper Hiag		Cameroon
Mr Luis Lourenço		Portugal
Mr Rob Moss		The Netherlands
Dr Virginia Olmos		Uruguay
Dr John Pieper		USA
Mr Paul Sinclair		President
FIP Board supporters		
Dr Manjiri Gharat	FIP Envoy to India	India
FIP Sections/Groups		
Mr Lars-Åke Söderlund	Co-Chair, Technology Advisory Group	Sweden

Name	Role	Organisation	Country
Ms Hanne M. Andresen	Director Pharmaceutical Affairs	Norwegian Pharmacy Association	Norway
Prof. Ian Bates	Professor of Pharmacy Education, Practice & Policy; Global Pharmaceutical Observatory Director	University College London (UCL) School of Pharmacy; FIP	UK
Dr Wern Chai	Member; Lecturer	Australasian Pharmaceutical Science Association; Pharmacy and Pharmacology, School of Pharmacy and Biomedical Sciences, College of Health, Adelaide University	Australia
Dr Astrid Czock	Founder and Healthcare specialist; Scientific collaborator	Czock Healthcare Consulting; Swiss Society of Endocrinology and Diabetology	Switzerland
Dr Shelita Dattani	Vice President, Pharmacy Affairs	Neighbourhood Pharmacy Association of Canada	Canada
Dr Brigid Groves	Vice President for Professional Affairs	American Pharmacists Association (APhA)	USA
Ms Alexandra Imbrea	Legal Advisor	Romanian Association of Pharmacies and Pharmacists (AFFR)	Romania
Mr Jack Shen Lim	General Secretary	Malaysian Pharmacists Society (MPS)	Malaysia
Ms Birgitte Lloyd	President	Norwegian Association of Pharmacists	Norway
Ms Jeltje Luinenburg	Policy Adviser/Vaccination specialist	Royal Dutch Pharmacists Association (KNMP)	The Netherlands
Ms Susan O'Donnell	Professional Services Pharmacist	Irish Pharmacy Union	Ireland
Dr Laura Mihaela Palade	Vice President	Romanian Association of Pharmacies and Pharmacists (AFFR)	Romania
Ms Erminia Pietrobono	Legal policy officer	Federfarma	Italy
Ms Ema Paulino Pires	President	National Association of Pharmacies of Portugal	Portugal
Dr Juilo Ramirez (virtual attendance)	Professor of Medicine, Chief, Division of Infectious Diseases; Chief Scientific Officer	University of Louisville; Norton Healthcare, Louisville	USA
Ms Magali Van Steenkiste	Pharmacist-expert	Association of Pharmacists Belgium	Belgium

Name	Role	Organisation	Country
Prof. Lotte Steuten	Deputy Chief Executive	Office of Health Economics	UK
Mr Koen Straetmans	President	Association of Pharmacists Belgium	Belgium
Ms Marie-Christine Truchet	Senior Director, Global Policy and Public Affairs	Pfizer	France
Ms Heidi Wright	Practice and Policy Lead, England	Royal Pharmaceutical Society	Great Britain
Ms Marcy Yanchunas	Director, Global Commercial Development	Pfizer	USA

FIP Team	
Ms Anna Domin	FIP Programme Manager
Dr Mariet Eksteen	Head of Advocacy, Communications and Marketing
Ms Laila Ghorab	Communications Coordinator
Ms Carola van der Hoeft	COO & Congress Director
Ms Mfonobong Timothy	Disease Prevention and Self-care Programme Manager

3 Summit programme

DAY 1 – Thursday, 12th March 2026

Time	Session title
09.00 – 09.10	Welcome and opening remarks Mr Paul Sinclair, FIP President
Session 1 - Plenary	
09.10 – 10.00	From Response to action: Leveraging FIP's global vaccination strategy Dr Catherine Duggan, FIP Chief Executive Officer
Session 2 - Plenary	
10.00 – 11.00	Global vaccination from the pharmaceutical industry perspective Ms Marie-Christine Truchet, Senior Director Global Policy & Public Affairs, Pfizer
Session 3 - Presentations	
11.30 – 13.00	The economic case for expanding vaccination delivery Prof. Lotte Steuten, Deputy Chief Executive, Office of Health Economics, UK
	Strengthening global vaccination through data: The role of member organisation engagement Prof. Ian Bates, Professor of Pharmacy Education, Practice & Policy, University College London (UCL) School of Pharmacy; Global Pharmaceutical Observatory Director, FIP
Session 4 - Presentations	
14.15 – 15.15	Leveraging pharmacy-based vaccination for integrated co-morbidities and multi-NCD management Region of the Americas – Dr Brigid Groves, Vice President for Professional Affairs, American Pharmacists Association, USA Europe - Dr Laura Mihaela Palade, Vice President, Romanian Association of Pharmacies and Pharmacists, Romania
Session 5 - Presentations	
15.45 – 17.00	Strengthening respiratory and lung health through life course immunisation: Science into practice into health gain Dr Julio Ramirez, Professor of Medicine, Chief, Division of Infectious Diseases, University of Louisville; Chief Scientific Officer, Norton Healthcare, Louisville, USA <i>By teleconference</i>
	Strengthening public health through vaccination: From scientific advances to pharmacy practice Dr Astrid Czock, Healthcare specialist, Founder of Czock Healthcare Consulting and Scientific collaborator of the Swiss Society of Endocrinology and Diabetology, FIP Global Lead for DG8

DAY 2 – Friday, 13th March 2026

Time	Session title
Session 1 - Rapid insights	
09.15 – 10.45	<p>“Rapid insights” on key topics, country updates and challenges to the role of vaccination in the prevention and management of non-communicable diseases (NCDs), addressing:</p> <ul style="list-style-type: none"> • Regulatory fragmentation – UAE (Prof Nadia Al Mazrouei - teleconference) • Scope of practice – Belgium (Ms Magali Van Steenkiste) • Digital integration – Portugal (Ms Ema Paulino Pires) • Vaccine hesitancy in ageing populations – Canada (Dr Shelita Dattani) • Clinical complexity for vaccination consideration – Italy (Ms Erminia Pietrobono) <p>Followed by discussion and feedback</p>
Session 2 - Rapid insights	
11.00 – 12.30	<p>“Rapid insights” with key topics, country updates and challenges to the role of vaccination in the prevention and management of non-communicable diseases (NCDs), addressing:</p> <ul style="list-style-type: none"> • Vaccine equity for older adults – Ireland (Ms Susan O'Donnell) • Impactful advocacy and collaboration – Malaysia (Mr Jack Shen Lim) • Evidence-based communication strategies to build vaccine confidence – Romania (Dr Laura Mihaela Palade) • Regulatory framework – Norway (Ms Hanne M. Andresen) • Education, training and certification – India (Dr Manjiri Gharat – recorded presentation) <p>Followed by discussion and feedback</p>
12.30 – 12.40	<p>Summary and conclusions</p> <p>Ms Marie-Christine Truchet, Senior Director, Global Policy and Public Affairs, Pfizer Ms Marcy Yanchunas, Director, Global Commercial Development, Pfizer Dr Catherine Duggan, FIP Chief Executive Officer</p>
12.40 – 12.45	<p>Closing remarks</p> <p>Mr Paul Sinclair, FIP President</p>

4 Key messages and outcomes

4.1 From response to action: Leveraging FIP's global vaccination strategy

Speaker: Dr Catherine Duggan, FIP Chief Executive Officer

The presentation provided an overview of the major challenges impacting patient care and public health, including antimicrobial resistance (AMR), non-communicable diseases (NCDs), and other global health threats, and how the International Pharmaceutical Federation (FIP) is supporting pharmacy and pharmacists globally.

1. The expanding role of vaccination

Over the years, vaccination has expanded to have many benefits in public health globally. In summary, vaccination:

- prevents infectious diseases from spreading and protects those still susceptible through herd immunity;
- impacts global health by improving productivity, increasing healthy life expectancy, and reducing long-term disability;
- necessitates continuous investment in vaccine technologies to tackle emerging diseases;
- provides substantial health and economic burdens worldwide;
- provokes urgent and sustained political attention and investment to strengthen immunisation programmes and protect the significant progress achieved.

2. Major challenges impacting patient care and FIP's response aligned with leveraging PBV

Through PBV, those at-risk diseases are better able to cope with these challenges.

Challenge	FIP'S response
Vaccine hesitancy	<p>FIP commitment to leveraging pharmacists to build vaccine confidence and communicating vaccine value</p> <p>Short professional development videos on vaccine confidence</p>
Antimicrobial resistance	<p>FIP declaration on AMR promotes vaccination and disease prevention to combat AMR as one of its priorities</p> <p>FIP commitment on antimicrobial resistance and stewardship by 2030</p>
Air pollution and climate change	<p>Short professional development videos on environmental sustainability</p>
Influenza / COVID-19 pandemic	<p>Seasonal influenza vaccination monitoring through the vaccination surveillance atlas</p> <p>Impact of data on seasonal influenza vaccine</p>

Additionally, key deliverables and outputs on vaccination following last year's summit include five publications, two digital events and an infographic.

3. Vaccination across the NCD continuum

- Prevention and management of NCDs require evidence-based interventions that are safe, cost-effective, affordable, and feasible for implementation in local settings.
- Reducing the global burden of NCDs requires recognising vaccination as a preventive intervention for chronic disease management, not only for infectious disease control.
- Vaccination supports individuals across the entire NCD continuum:
 - Reduces the risk of complications in chronic disease
 - Supports primary prevention
 - Promotes healthy ageing and management of multimorbidity
 - Protects immunocompromised individuals.
- Vaccination should be an integral part of NCD strategies, with pharmacists empowered through authority, training and policy support to embed vaccination into routine care.
- A key related document—the FIP [statement](#) of policy on the role of pharmacists in non-communicable diseases—was updated in 2025 to reflect the continuously evolving role of the pharmacist in NCD care.
- The NCD handbooks—[chronic respiratory](#), [cardiovascular](#), and [cancer](#)—feature sections on how vaccination helps prevent disease and manage complications, highlighting the pharmacist’s role in supporting patients’ health.
- In some countries, pharmacists are empowered to play a role in NCD prevention and management, but in many settings, significant barriers remain to fully embedding this in pharmacy-based vaccination.

4. Conclusions

Pharmacists play a vital role in early detection, screening and treatment, helping to reduce chronic disease exacerbations, complications, and mortality risk among vulnerable populations. FIP’s work shows that pharmacy services do not displace other professions but instead expand care by reaching underserved populations and strengthening prevention and management efforts.

Continued advocacy, supportive policy, and collaboration to recognise PBV as part of the prevention agenda are key to achieving global health impact.

4.2 Global vaccination from the pharmaceutical industry perspective

Speaker: Ms Marie-Christine Truchet, Senior Director, Global Policy & Public Affairs, Pfizer

1. Industry priorities for advancing the impact of vaccination

The impacts of vaccination can be seen in the number of lives saved, the return on investment from adult vaccination, and the annual productivity losses among those aged 50 to 64 years in G20 economies due to preventable diseases.¹⁻³

Industry responsibilities include:

- Innovation and R&D investment: advancing development of new medicines, vaccines and therapies to address unmet medical needs.
- Supply chain resilience: strengthening global supply chains to ensure reliable vaccine availability.
- Access, uptake and confidence: ensuring all eligible populations have access to medicines and vaccines.

2. Horizon scanning and vaccine development

Supporting vaccination across the life course demands both innovation and coordinated action across sectors. Industry is responsible for ensuring timely, high-quality manufacturing and supply, in close collaboration with providers, and for sharing data to support networks working on vaccine access, uptake and confidence. Strengthening trust through robust, science-based evidence is essential to demonstrate the importance and benefits of vaccination.

With vaccination strategies now encompassing adult and life-course immunisation, research is expanding into therapeutic applications, including cancer vaccines, as already seen with human papillomavirus (HPV) and hepatitis B. There is also continued innovation in next-generation vaccines, new technologies and improved delivery methods. As of August 2025, advances in vaccine innovation point to a promising immunisation pipeline aimed at addressing diverse health threats, including the burden of respiratory-transmitted infections, antimicrobial resistance, challenges associated with an ageing population, climate change, and zoonotic infections.⁴

Paediatric vaccination relied on simpler approaches like live attenuated vaccines, which were easier to understand. Today, advances in science have introduced a wider range of platforms, such as protein-based, mRNA, and viral vector-based vaccines, making the landscape more diverse and complex. mRNA technology, utilised in COVID-19 vaccines, has been in development for over 60 years. All vaccines are tested to the same rigorous standards and evidence requirements, but differences in technologies, development timelines, and production speeds can create confusion, needing clearer communication, especially as hesitancy and questions around vaccination are even more acute after the COVID-19 pandemic.

Regulatory bodies and vaccine technical committees play a key role in evaluating vaccine efficacy and safety data, reviewing scientific evidence, and providing recommendations that inform national vaccination policies and programmes and protect public health. Pharmacists are not always represented on these technical committees, which represents a key gap from an industry perspective. Ensuring their involvement from the outset of national vaccination strategy discussions is essential to help unlock supportive policies and strengthen investment decisions.

3. The burden of vaccine-preventable respiratory diseases

The global burden of vaccine-preventable respiratory diseases is substantial, especially with observable sharp increases in co-circulating vaccine-preventable respiratory diseases during winter. However, respiratory vaccination uptake remains low.

- Across the EU/EEA, older adult vaccination rates for influenza are decreasing⁵
- Adult pneumococcal vaccination rates lag behind routine paediatric vaccination rates in many countries⁶

Infection with vaccine-preventable respiratory diseases can contribute to the development of new non-communicable diseases and exacerbate existing conditions. Reducing this burden is critical, as NCDs remain the leading cause of death and disability worldwide.

4. The value of adult vaccination programmes

Integrating robust adult vaccination programmes into NCD management plans can:

- Build resilient, prevention-first health systems, and ease pressures on the wider economy
- Provide significant benefits for healthcare systems and society
- Reduce deaths and hospitalisations.

5. Vaccine confidence and the role HCPs can play in advocacy

Vaccine apathy, misinformation and poor communication are barriers to vaccine confidence and uptake. Equity, meaningful public engagement, and interprofessional collaboration are needed to foster trust and confidence in vaccines.

Pharmacists remain a trusted source of information and are vital to improving vaccine confidence, improving public perception, and enhancing vaccine safety and access. To fully realise the public health benefits of pharmacy-based vaccination, key calls to action include:

- Enabling supportive policy and regulatory frameworks for pharmacist vaccination
- Investing in pharmacist training and workforce readiness
- Expanding equitable access to life-course immunisation
- Integrating pharmacy vaccination data into national systems
- Supporting sustainable funding models for pharmacy-based vaccination.

6. Conclusions

Sustained investment from industry is driving the development of more effective vaccines and supportive policies. However, these efforts only have an impact if vaccines reach, and are administered to, the people who need them—making access and uptake critical to success; this is where pharmacists play a key role.

4.3 The economic case for expanding vaccination delivery

Speaker: Prof. Lotte Steuten, Deputy Chief Executive, Office of Health Economics, UK

1. The foundation: global benefit-cost analysis

Compelling evidence from a study in ten countries suggests that, considering benefits within and beyond the health system, adult immunisation delivers significant socio-economic value:⁷

- Reduced morbidity and mortality
- Lower healthcare system costs
- Increased productivity and carer support
- AMR prevention and health equity gains.

The societal value of adult vaccination is no longer in dispute, but uptake and coverage gaps mean that value is being systematically forfeited.

Is the return on investment of adult vaccination always 19:1?

The exact return on investment (ROI) may vary, but the key point is that around 95% of programmes, even under conservative, worst-case assumptions, still deliver a positive ROI. While higher returns are desirable, what matters most is that the investment is worthwhile.

Our analyses also show that mortality-focused programmes yield particularly strong returns, while morbidity-focused programmes, such as shingles vaccination, also demonstrate consistently high ROI.⁸⁻¹⁰

Prof. Lotte Steuten, Office of Health Economics, UK

2. The hidden burden: COVID-19 and the impact on productivity

Much of the economic value at stake lies outside healthcare budgets—in lost productivity, workforce attrition and long COVID; decision-making frameworks that ignore this are structurally biased against expansion. While most vaccination programmes rightly focus on reducing hospitalisations, this overlooks a

significant share of the impact: those who may not require hospital care but still experience infections and their broader consequences.

3. Policy recommendations

1. Leverage pharmacy-based vaccination as a promising delivery mechanism to reach working-age adults who have limited interaction with primary care.
2. Adopt broader valuation frameworks, moving beyond supply-side QALY thresholds and healthcare-only cost perspectives to incorporate societal willingness to pay and productivity-inclusive approaches.
3. Explore co-investment in vaccination by employers and finance ministries, particularly as they bear a greater share of the impact through absenteeism and presenteeism.
4. Frame vaccination as a cross-sector economic investment, making a strong case to finance ministries, employers and treasury departments.

4. Conclusions

Current programmes already deliver exceptional societal return on investment, and the marginal return from expanding coverage and eligibility often exceeds that of existing programmes. The challenge lies in how value is assessed and how budgets are structured. Pharmacists' involvement, supported by political commitment and appropriate remuneration, can extend reach and enhance impact. This kind of data and evidence are essential to strengthen pharmacy's advocacy and build the case for change.

4.4 Strengthening global vaccination through data: The role of member organisation engagement

Speaker: Prof. Ian Bates, Professor of Pharmacy Education, Practice & Policy, University College London (UCL) School of Pharmacy; Global Pharmaceutical Observatory (GPO) Director, FIP

The presentation provided a snapshot of the GPO's current work, highlighting examples of how data can be transformed into actionable intelligence to inform policy and decision-making in pharmacy-based vaccination.

1. Pharmacy-based vaccination trends and workforce capacity

- Trends from 2016 to date show 56 countries and territories where pharmacy-based vaccination services are provided. The highest occurrence of this is in the European region.
- One-third of countries allow pharmacists to prescribe some vaccines.
- The gap between pharmacist capacity in low-income countries has a significantly lower gradient (and corresponding trend increase) compared with higher-income countries, and this gap is widening over time based on current projections.
- Disaggregation by income highlights the impacts of socio-economic factors on the pharmacy workforce expansion.
- Workforce advancement is not an exclusive trait of higher-income countries. Lessons from countries that have already adopted concepts of advancement in pharmacy practice could be adopted by other countries to accelerate the progress of advanced practice. This necessitated the launch of the [Global Advanced Development Framework](#) to support country workforce self-assessment and needs-assessments for progress towards achieving the FIP Development Goal 4 - advanced and specialist development.

2. Partnerships with member organisations

- Extensive work to map the “shape” of the workforce, looking beyond demographics to assess competencies and career progression across both community and hospital sectors
- Collaboration on graduate supply and variations across countries
- Support for interaction with the [global Development Goals dashboard](#)
- A growing series of [country case studies](#), each providing a national snapshot
- Atlas on [point-of-care testing \(POCT\)](#) and [vaccination surveillance](#)
- [Impact database](#)
- Continuous engagement on:
 - Reimbursement models – the ‘economic case’ for pharmacy
 - Data/outcomes – linkages to advocacy and leverage
 - Policy/regulatory reforms – impact evidence for national level advocacy
 - Workforce development programme – capacity trends, advancement, frameworks
 - Self-care – reframing the narrative on accessibility and pharmaceutical public health delivery.

Accessing country-level data remains a key challenge, and data gaps limit the effectiveness of GPO’s work. Effectively collaborating through supporting data requests will be very helpful.

3. Conclusions

Addressing vaccine uptake requires a multi-level response rooted in community trust and local engagement. Collaboration between MOs and GPO will provide access to targeted intelligence, benchmarking opportunities, and supportive evidence aligned with global priorities. This supports policies and necessary changes to ensure optimal delivery of pharmacist-led health services.

4.5 Leveraging pharmacy-based vaccination for integrated co-morbidities and multi-NCD management – Regional examples

4.5.1 Pharmacy perspective on vaccination as prophylaxis against infections causing cancer

Speaker: Dr Brigid Groves, Vice President for Professional Affairs, American Pharmacists Association (APhA), USA

1. Cancer - a NCD and a vaccine-preventable disease

Several cancers are driven by infections; the most significant include *Helicobacter pylori* (linked to most gastric cancers), human papillomavirus (causing cervical and other genital cancers), and chronic infections with hepatitis B and C viruses, both of which significantly increase the risk of liver cancer.

In the USA, cancer mortality rate seems to be lower than the incidence rate, with evidence showing lower incidence and mortality rates for cervical cancer.¹¹ These rates may be partly due to broader access to HPV vaccination through pharmacists and other healthcare providers.

The hepatitis B vaccine effectively prevents transmission of the virus. Universal newborn vaccination has led to a significant reduction in chronic hepatitis B cases. Around 30,000 new HPV cancers are diagnosed across the USA every year, and the vaccination can prevent more than 90% of cancers when given on time at the recommended ages.

2. Leveraging pharmacy networks to promote cancer prevention vaccination strategies

Data from the USA indicate that there are approximately 340,000 pharmacists, with 15.1% more pharmacy locations in low-income communities than physician practices, and pharmacies offering 95.7% more operating hours than physician practice sites.

Vaccination authority is determined at the state level. Some states are now adopting recommendations from professional bodies such as the American Academy of Pediatrics and the American Academy of Family Physicians, while others continue to tie pharmacists' authority to guidance from the Centers for Disease Control and Prevention (CDC), Advisory Committee on Immunization Practices (ACIP), or the Food and Drug Administration (FDA), which may create barriers when recommendations change. Many states have adapted quickly, and this flexibility has helped to maintain or expand patient access to vaccination services.

The burden of HPV and liver cancer falls disproportionately on underserved, rural and minority communities due to provider shortages, transport challenges, and limited access to preventive care. Pharmacies help to narrow this equity gap through their proximity, extended hours and acceptance of walk-ins. Community partnerships and public health initiatives further extend reach.

Patients are often eligible for multiple vaccines, which can create confusion for both patients and pharmacists, particularly when individuals prefer to receive one vaccine at a time. To address this, APhA developed an [action plan](#) to help pharmacists identify required routine and catch-up vaccines and create a tailored schedule. This approach supports patient ownership, improves adherence, and enables pharmacies to better plan and manage vaccine stock.

Despite progress, gaps remain:

- Lower HPV vaccination rates in rural areas and among males
- Insurance and administrative hurdles
- Fragmented systems that don't consistently integrate vaccination with cancer screening pathways.

Addressing these requires policy advances, interoperability, and continued expansion of pharmacist authority.

Existing opportunities include:

- Strengthening pharmacist prescribing authority globally
- Investing in adult vaccination programmes and reimbursement models
- Improving data exchange between pharmacies, primary care, and cancer screening programmes
- Addressing misinformation about HPV vaccines, especially around their role in cancer and safety
- Emphasising co-delivery of HPV + other NCD vaccines (flu, COVID, pneumococcal).

3. Conclusions

Vaccines are a critical, under-leveraged tool in preventing cancer, one of the world's most costly and devastating NCDs. Pharmacists expand access, close equity gaps, and ensure safe vaccination for populations across the lifespan. Investment in pharmacy-based vaccination is an investment in cancer prevention.

4.5.2 Romania's experience with influenza vaccination in community pharmacies

Speaker: Dr Laura Mihaela Palade, Vice President, Romanian Association of Pharmacies and Pharmacists (AFFR), Romania

1. Implementation of pharmacy vaccination in Romania

- Romania's pharmacy vaccination legal framework was introduced in 2021, and by 2022, the Ministry of Health established a pilot programme for influenza vaccination in community pharmacies. Current results indicate that vaccination in pharmacies is safe and feasible, with no reported incidents.

- Influenza vaccination training is restricted to licensed pharmacists who complete accredited, university-based certification. The programme, delivered across 12 universities, spans a minimum of 25 hours over five days and combines theoretical and practical components, covering vaccine administration, cold chain management, patient eligibility and safety screening, and adverse event management.
- Administration requires a prescription from a GP and is permitted for adults (≥ 18 years), or for minors with parental consent, provided the individual has previously received at least one influenza vaccination from a GP.

2. Results of the influenza vaccination pilot programme

- From 2022 to 2026, the number of vaccinations administered in pharmacies increased from 109 to 6,102, with 431 community pharmacies nationwide currently participating in the programme.
- Approximately 5% of the current capacity of community pharmacies is being leveraged. While this remains modest, the upward trend demonstrates growing acceptance of pharmacy-based vaccination services.
- High public trust in pharmacists and flexible opening hours support programme uptake; however, the lack of reimbursement, coordinated public communication, and the GP prescription requirement remain significant constraints.
- As observed in other countries, there is resistance from some healthcare professionals and pharmacists, as well as challenges related to vaccine supply. However, opportunities exist to expand preventive healthcare services and strengthen collaboration through unified vaccination awareness campaigns.

3. Influenza vaccination for Romanian patients living with non-communicable diseases (NCDs)

- Influenza vaccination is particularly important for patients with cardiometabolic conditions, as infection can lead to destabilisation of chronic diseases, increased hospitalisation risk, and cardiovascular events or complications.
- The accessibility and extended opening hours of Romanian pharmacies, along with frequent patient interaction, can support improved vaccination coverage among vulnerable populations.
- While physicians and the media remain the primary sources of vaccination information, pharmacists contribute a smaller but important share. Public attitudes highlight a gap between confidence and uptake, which requires further attention.

4. Policy developments and future perspectives

- Learnings from European models, supported by pharmacists within government and professional bodies, have been instrumental in introducing the service to regulators, although progress has been gradual and incremental.
- From April 2026, health reform legislation will enable the provision of pharmaceutical services, including vaccine administration, under national regulation, creating the basis for potential expansion to HPV vaccination and future reimbursement. The next step is to transition from a pilot programme to a fully integrated national service.

5. Conclusions

Romania's experience shows that pharmacy-based vaccination is safe and feasible. Supportive policies, more trained professionals, reimbursement mechanisms, and public awareness are essential for future expansion.

Key learnings from Portugal for countries initiating or expanding PBV pilot programmes

Offering services for free or at very low cost early on can weaken future negotiations with the government on remuneration.

Strong public communication can accelerate service uptake as the public demand could pressure pharmacy owners and policymakers, creating a ripple effect across pharmacies.

Integrating vaccine administration into undergraduate pharmacy education so that new graduates are qualified to vaccinate without requiring additional training or certification will increase the number of trained professionals available to provide services.

4.6 The association of non-communicable diseases and community-acquired pneumonia

Speaker: Dr Julio Ramirez, Professor of Medicine, Chief, Division of Infectious Diseases, University of Louisville; Chief Scientific Officer, Norton Healthcare

1. Acute sequelae of pneumonia

- Acute sequelae of hospitalised community-acquired pneumonia can affect multiple organ systems, including pulmonary, cardiovascular, and neurological complications. This highlights that virtually any organ may be impacted during severe illness.
- Previously, pneumonia outcomes were assessed within 30 days, assuming recovery or death. However, important long-term sequelae are now being recognised, with some patients experiencing clinical effects months or even years after hospitalisation.

2. Long-term sequelae of pneumonia

- These are a combination, primarily of non-communicable diseases that the patient may develop after an episode of pneumonia, affecting the already decreased quality of life post-hospitalisation for pneumonia.
- Community-acquired pneumonia can accelerate biological ageing and reduce long-term life expectancy. This becomes the risk for long-term mortality. Therefore, such patients will need to be vaccinated, whether they have a normal immune system or are immunocompromised.
- Previously, non-communicable diseases were understood to be a risk factor for community-acquired pneumonia, but now, the development of community-acquired pneumonia is also a risk factor for the development of accelerated or non-communicable diseases.

3. Vaccines to prevent pneumonia: A new paradigm

Primarily, the vaccines to prevent pneumonia include pneumococcal, respiratory syncytial virus (RSV), COVID and influenza vaccines.

- These vaccines may also function as vaccines to prevent the progression or development of non-communicable diseases, preserve biological age, and even reduce long-term mortality.
- Pharmacists play a key role in educating patients to understand that vaccines do not always prevent infection entirely but can reduce disease severity and prevent complications. This is especially relevant for older or immunocompromised patients, who may still develop mild illness despite vaccination. The primary goal is to prevent acute and long-term sequelae, with emerging

evidence suggesting vaccines may also help reduce the risk of subsequent non-communicable diseases.

4. Conclusions

Pneumonia involves acute sequelae driven by uncontrolled, dysregulated systemic inflammation. In some patients, this persists and becomes chronic (“inflammaging”), leading to long-term sequelae. As a result, the risk of many non-communicable diseases increases after a pneumonia episode. This supports a new paradigm: vaccines that prevent pneumonia may also help prevent acute complications, long-term sequelae, and broader disease burden over time.

What priority actions are needed to better integrate pharmacists into the national/regional vaccination strategy to ensure higher uptake and coverage, reduce the NCD burden, and contribute to global NCD strategies to support the UN Sustainable Development Goals by 2030?

“We are at a strong moment to better harness community and patient engagement in advocacy. By harnessing the will of patients and communities in the conversation, pharmacy advocacy can become more effective and better aligned with real-world needs.”

Dr Shelita Dattani, Vice President, Pharmacy Affairs, Neighbourhood Pharmacy Association of Canada, Canada

“This depends on clearly demonstrating value for all stakeholders, patients, government, pharmacies, pharmacists, and general practitioners. Strong data and international examples showing improved population health outcomes will provide greater opportunity to expand vaccination services and move forward with the introduction of new vaccines.”

Dr Laura Mihaela Palade, Vice President, Romanian Association of Pharmacies and Pharmacists (AFFR), Romania

“There is a need for greater consistency in how state boards and medical associations approach policy. More aligned and equitable frameworks would help ensure that pharmacists and technicians can provide uniform access to vaccines across all states. Additionally, patients can be powerful advocates, and when they actively request pharmacist-led services, whether for chronic disease management or vaccination, this can strengthen the case for policy change among payers and legislators and help reinforce shared goals in improving access to care.”

Dr Brigid Groves, Vice President for Professional Affairs, American Pharmacists Association, USA

4.7 Strengthening public health through vaccination: From scientific advances to pharmacy practice

Speaker: Dr Astrid Czock, Healthcare specialist, Founder of Czock Healthcare Consulting and scientific collaborator of the Swiss Society of Endocrinology and Diabetology; FIP Global Lead for DG8

1. Importance of vaccination and global health challenges

Vaccination is a life-course public health strategy and an essential cornerstone of global health. However, science alone does not immunise people: practice, systems and access do.

Vaccination matters because it:

- saves lives by reducing infant mortality and promoting long-term health
- saves resources as less disease incidence reduces the burden on health systems and health costs
- reduces suffering and infection side effects in ageing and multimorbid individuals
- reduces disease incidence, and protects vulnerable (immunosuppressed, infants, etc.) populations.

There are more patients with multiple chronic diseases and ongoing and rising workforce shortages continue to exist.

2. Respiratory infection vaccination rates: Findings from Switzerland

Globally, vaccine-preventable infectious diseases (VPD) are on the rise due to:

- stalled progress with global immunisation campaigns
- shifts in vaccine acceptance
- reductions in public health funding.

Findings from the Switzerland Sentinella group show that influenza infection in the elderly results in increased hospitalisation and deaths, as well as increased risks of myocardial infarction and stroke, and an increasing morbidity and mortality related to pre-existing heart failure. However, the risk of dementia is reduced following vaccination.

A QualiCCare survey¹² among older adults aged 65-85 showed that the main reason most were vaccinated was due to their healthcare professional advising them to. Influenza vaccination among healthcare workers (HCW) in the primary care sector has increased overall from 40% in 2015/16 to 60% in 2020/21; COVID-19 vaccination was high at 92%.¹³ In 2015, the first cantons authorised pharmacists to vaccinate without a prescription, which seemed instrumental in encouraging vaccination among pharmacists.

Vaccination uptake among HCW is influenced by training status, prior influenza vaccination, profession, and age. During the COVID-19 pandemic, uptake increased significantly, driven primarily by the desire to protect themselves, their families, and their patients.¹³

As of today, for adults above 65, pharmacists are authorised to vaccinate against COVID-19, diphtheria, influenza, herpes zoster, pneumococcus, tetanus and the RSV vaccine in all 26 cantons, but differences continue to exist in the vaccines they are authorised to administer, including other vaccines not mentioned. Remuneration via health insurance is expected to be authorised for 2027, but this decision is not definitive and still subject to change.

3. Conclusions

Vaccination is the bridge between science and public health, and pharmacy is where that bridge reaches the people. Expanding access to vaccinations reduces vaccine hesitancy, protects the most vulnerable, and will ensure equity and health for all.

4.8 “Rapid insights” on key topics, country updates and challenges to the role of vaccination in the prevention and management of non-communicable diseases (NCDs)

4.8.1 Regulatory fragmentation – United Arab Emirates

Speaker: Prof Nadia Rashed Al Mazrouei, Associate Professor - University of Sharjah; FIP Vice President and President, ISPOR UAE Chapter *(by teleconference)*

Prof Al Mazrouei shared that UAE healthcare services, professional licensing and public health programmes are regulated by a highly advanced healthcare system with multiple regulators. While the multi-regulatory model allows for flexibility and innovation, it also introduces regulatory fragmentation. Regulatory fragmentation arises when multiple authorities oversee similar services, leading to variation in policies across jurisdictions, differences in professional scope of practice, and misaligned data reporting systems. This lack of harmonisation can affect the consistency of healthcare service delivery, involving vaccination service models, professional authorisation for vaccine administration, vaccination reporting systems, and integration with national public health strategies.

Despite regulatory complexity, the UAE has achieved strong vaccination outcomes:

- Childhood immunisation coverage >95%
- One of the highest COVID-19 vaccination rates globally.

Key success factors for these outcomes include:

- Strong government leadership
- Digital health infrastructure
- High public trust.

For the vaccination system to be strengthened, policy alignment in several areas is needed:

- Enhanced coordination between regulatory authorities
- Harmonised vaccination policies
- Integrated digital vaccination registries
- Expanded roles for healthcare professionals
- Alignment with NCD prevention strategies.

Vaccination is evolving from an infectious disease strategy into a broader preventive tool for NCD management and healthy ageing. Policy coordination and digital integration can strengthen vaccination systems in multi-regulator healthcare environments.

4.8.2 Scope of practice – Belgium

Speaker: Ms Magali Van Steenkiste, Pharmacist-expert, Association of Pharmacists Belgium, Belgium

One quarter (25%) of the Belgian population lives with a chronic disease, and although life expectancy is 82 years, healthy life expectancy is 64 years. To improve the living conditions of those with chronic diseases, the pharmacists offer the following services:

- Ensure continuity of care through the Family Pharmacist model
- Manage chronic pharmacotherapy, including polypharmacy
- Perform clinical medication reviews for patients with NCDs

- Support adherence and persistence in long-term treatment
- Provide accessible prevention, including vaccination for at-risk groups.

Expanding community pharmacists' scope of practice, vaccination services commenced in 2022 with the administration of 200,000 COVID-19 vaccine boosters and then 600,000 boosters as of 2023, proving the expertise of pharmacists and the safety of getting vaccines in the pharmacy.

Pharmacists gained authority to administer influenza vaccines in 2023, but this was only fully embedded in law by December 2025. The service is free for patients, while pharmacists receive a fee of around €15 per vaccination. Importantly, implementation was partly driven by public demand, with patients (especially following COVID-19 vaccination) questioning why influenza vaccines could not also be provided directly in pharmacies.

Pharmacists translate NITAG recommendations and reimbursement criteria into a practical, patient-focused approach. Patients' medication data is used to identify their eligibility for vaccination—even without full clinical histories—and they receive prompts to initiate conversations. This enables targeted counselling and on-the-spot vaccination, reducing access barriers.

Belgian data show strong growth of vaccination services by pharmacists as vaccine delivery has doubled in three seasons. An important insight is that younger people with non-communicable diseases are increasingly choosing pharmacies for vaccination. Unlike older adults who regularly visit their GP, younger patients may have infrequent specialist visits but interact more often with pharmacists, making pharmacies a key access point to reach this population. This has buttressed the key message to policymakers that pharmacy-based vaccination adds value by increasing overall vaccination rates. It also reflects a shift in patient preference, with more individuals choosing pharmacies as a convenient and trusted location for receiving vaccines.

As seen in Belgium's journey, the real impact of pharmacy is not just in volume, but in reaching populations that are less engaged with traditional healthcare services. This added value supports the case for expanding pharmacists' scope to include more vaccines.

4.8.3 Digital integration – Portugal

Speaker: Ms Ema Paulino, President of the National Association of Pharmacies, Portugal

Ms Paulino shared that after legal authorisation in 2007, education for community pharmacists to administer vaccines began immediately, while official regulatory frameworks only followed two to three years later. Starting early not only built capability for Portugal but also helped shape and influence the eventual legislation and regulatory standards. Since 2008, pharmacies have been able to administer all vaccines not included in the National Vaccination Program (NVP) and in 2018, the first pilot project began with a municipality, which allowed the administration of the influenza vaccine in pharmacies, under the same conditions as the NHS vaccination.

Pharmacies have been consolidating their role in the national seasonal vaccination strategy over the years, with a growing number of participating pharmacies. In complementarity with the NHS, they have taken part in the seasonal vaccination campaign against influenza and COVID-19 since 2023, with particular emphasis on coordinating user communication, encouraging adherence, and promoting scheduled appointments in a proximity-based context. This is a reimbursed service and free of charge for the eligible population. By the end of December, within the scope of the 2025/2026 campaign, more than 1 million influenza vaccines and more than 600,000 COVID-19 vaccines had been administered.

Community pharmacies can access patients' vaccination and infection records within themselves, but only in a limited way. Available data includes influenza and COVID-19 vaccinations, as well as the most recent vaccine received. This helps pharmacists assess whether appropriate intervals have elapsed before administering another vaccine, but access remains restricted across other immunisation records. Since 2022, information on pharmacy-administered vaccines has been integrated directly into the e-vaccination bulletin, so all information is centralised in one electronic record and available to the population. They are also able to report vaccine stock shortages with Shared Services of the Ministry of Health (SPMS). This simplifies the patient's journey into an efficient, straightforward process where:

- Patient information can be accessed via an electronic system using their NHS number with consent; and
- Pharmacists verify eligibility, administer the vaccine, and record it in the system, where it is automatically updated in the central vaccination record.

Looking ahead, opportunities include:

- Strong public preference for pharmacies as vaccination points
- Leveraging proximity and accessibility of the extensive pharmacy network to ensure widespread territorial coverage, reducing access barriers
- Leveraging pharmacists as trained and equipped to administer vaccines and provide follow-up care
- Integration of vaccination records (access and registration to influenza and COVID-19 vaccines).

Alongside an increase in vaccine hesitancy, vaccine shortages and lack of access to all information available in the e-vaccination bulletin, there remain unequal and unfair conditions for patients who prefer pharmacies, particularly those over 85 years old, who can benefit from higher dose vaccines and can only get them for free in healthcare centres. The pharmacy association is working to ensure access, equity and increased public awareness of the benefits of vaccines.

4.8.4 Vaccine hesitancy – Canada

Speaker: Dr Shelita Dattani, Vice President, Pharmacy Affairs, Neighbourhood Pharmacy Association of Canada, Canada

Despite the benefits of vaccination in older adults, national coverage rates remain unmet in Canada.¹⁴ Coverage is strong for COVID-19 and influenza, but drops sharply for RSV and pneumococcal, mirroring gaps in public funding. This lower vaccination uptake among older adults is largely driven by structural barriers, particularly cost and coverage, as well as the lack of a recommendation from a healthcare provider. These structural barriers highlight the value of pharmacies, which offer more convenient, walk-in access and can help reduce friction in the system.

Hesitancy in older adults is rarely about rejection. It is driven by confidence gaps, complacency, and convenience, which are key elements and cornerstones of building vaccine confidence and are all amenable to system-level solutions. Different regulatory systems within a country create significant challenges, as seen in Canada's 13 jurisdictions. One effective strategy has been benchmarking provinces through "report cards" on vaccine access, coverage, and pharmacist scope, encouraging improvement through comparison. This highlights stark disparities; some provinces achieve high performance with broad funding, pharmacist prescribing, and strong awareness efforts, while others, particularly remote and vulnerable regions, face poor access. These structural gaps underscore the need for more equitable, coordinated approaches to vaccination.

Older Canadians trust pharmacists and overwhelmingly prefer pharmacy as a vaccination setting, yet prescription requirements and scope restrictions stall access.

Evidence-based interventions that convert positive attitudes into higher uptake in older populations include:

- Make vaccination the default: Routinely check vaccine status during medication reviews, prescription renewals, and chronic disease management encounters, not just dedicated vaccine visits.
- Use strong presumptive recommendations: A health care professional recommendation is the single strongest predictor of uptake. Pharmacists should move from "would you like to..." to "I'm recommending this vaccine for you today."
- Simplify the journey: Utilise reminders and recall systems tailored to older adults and proactively identify publicly funded vaccines, help navigate benefits, and co-administer where possible.
- Reduce financial friction: Advocate for harmonised provincial coverage.

- Tailor approaches for subgroups: Rural, indigenous, newcomer and low-income older adults need community partners and culturally safe communication, because a one-size-fits-all campaign does not close the gap.

Pharmacy is the most scalable lever: 95% of Canadian seniors would vaccinate in pharmacies because of infrastructure and trust. Empowering pharmacists with time, tools and training to address concerns is essential for resilient adult immunisation programmes. Canada's experience shows that closing the last mile for seniors is a system design challenge, not just a communication problem.

4.8.5 Clinical complexity for vaccination consideration – Italy

Speaker: Ms Erminia Pietrobono, Legal policy officer, Federfarma, Italy

In Italy, 25% of the population is over 65, and one in three of this cohort has more than one chronic condition simultaneously. The multimorbid patients who need vaccination most are often the least likely to receive it, not due to vaccine availability, but because of fragmented healthcare pathways. The Italian context is further complicated by 20 autonomous regional health systems and limited interoperability between pharmacy and vaccination information systems.

Two laws enacted in December 2025 provide solutions for making pharmacy vaccination more structured for complex clinical scenarios.

Part 1: Law 182/2025

- Effected immediately, pharmacists are now authorised to administer all vaccines in the national prevention vaccination plan, even to naïve patients
- Introduction of an annually readable electronic prescription for chronic disease medication
- Decentralised diagnostic testing for antimicrobial resistance at the pharmacy level, positioning the pharmacist as an active player in the clinical decision-making process.

Part 2: Law 199/2025

- Budget law that provides the financial architecture
- €50 million annually integrated into the national health budget specifically for pharmacy services
- Recognition of pharmacies as healthcare facilities providing Essential Levels of Care, the LEA framework
- Funding mechanism for national distribution and regional implementation.

Based on Law 182, physicians can now issue an annual repeatable electronic prescription for chronic disease medication, specifying dosage and package quantities deliverable over 12 months. The pharmacist dispenses monthly, monitors adherence, and has a formal obligation to flag the issues to the prescribing physicians. This matters for vaccination because it converts episodic pharmacy contact into longitudinal continuity and creates systematic vaccination opportunities in patients who see multiple specialists, but where no single provider is responsible for preventive integration. Despite a supportive legislative framework, the implementation challenges include:

- Broad regional discretion in funding allocation risks unequal patient access to pharmacy vaccination, where availability depends on region of residence rather than clinical need
- Legal framework for data infrastructure is established, but regional interoperability is not yet fully operational (theoretically by April 2026)
- No data from public authorities regarding pharmacist vaccination.
- Pharmacist scope ambiguity in the context of clinical complexity.

The Italian model is not without flaws, but the legislative and financial architecture is now in place: permanent authorisation, structural funding, legal healthcare facility status, and an emerging infrastructure

for longitudinal chronic patient engagement. This builds a framework to make pharmacy-based vaccination for multimorbid patients systematic rather than opportunistic.

4.8.6 Vaccine equity for older adults – Ireland

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

Ms O'Donnell noted that community pharmacies provide over 30% of the national influenza and COVID-19 vaccination programmes. Participation varies, with around 80% of pharmacies delivering influenza vaccines, administering nearly 475,000 doses, while approximately 60% provide COVID-19 vaccines, with 172,000 doses delivered in the most recent campaign. Lower participation in COVID-19 vaccination reflects operational challenges such as multi-dose vial handling and the lower level of demand for COVID-19 vaccination.

In 2025, tripartite discussions between the Irish Pharmacy Union, the Department of Health, and the Health Service Executive (HSE) focused on reimbursement structures for community pharmacy services. Immunisation emerged as a key area of progress, recognised as one of the most effective public health interventions. Community pharmacies were identified as important partners in supporting government efforts to increase vaccination uptake. Pharmacists have been authorised to provide pneumococcal vaccination since 2015; however, reimbursement through the national programme has not been in place. In the coming months, funding will be introduced for the supply and administration of pneumococcal vaccines to healthy adults aged over 65.

This progress is further supported by the integration of shingles vaccines administration records into the national immunisation system. The system already holds records on the pneumococcal, influenza, and COVID-19 vaccinations. These measures will enable a more complete and accessible patient vaccination record. Additional commitments also include reviewing patient access to travel vaccination services and the potential to streamline the process, reviewing pharmacist involvement in current and future immunisation programmes, and ongoing reinvestment in immunisation and community pharmacy services.

Ireland has one of the fastest ageing populations in the EU. Pharmacists are in regular contact with high-risk and eligible individuals; however, clinical recommendations are not always effectively communicated at the community level, particularly where government funding is limited.

Strengthening communication is essential to build vaccine confidence and ensure that vulnerable patients fully understand their risks and the benefits of vaccination. Creating opportunities for patients to discuss concerns, alongside providing clear information on the risks associated with chronic conditions and the benefits of vaccination, is therefore critically important.

4.8.7 Regulatory framework – Norway

Speaker: Ms Hanne M. Andresen, Director Pharmaceutical Affairs, Norwegian Pharmacy Association, Norway

Under the current framework, pharmacists in Norway have been authorised to prescribe influenza and COVID-19 vaccines since 2021. However, the provision of COVID-19 vaccination requires a separate contract with municipalities, which are responsible for vaccination services. With around 350 municipalities and no standardised national contract, implementation remains complex and fragmented.

Both pharmacists and pharmacy technicians are permitted to administer vaccines, supported by a standardised training programme implemented across pharmacies. Pharmacists who complete the programme are authorised to prescribe vaccines; however, an exception applies—pharmacy owners are not permitted to prescribe.

In the past year, the government has introduced an adult vaccination programme; however, funding remains limited. Public funding is primarily restricted to tendered vaccines (influenza and COVID-19) for at-risk populations, while pneumococcal vaccination is offered only to individuals in the year they turn 65. Despite these constraints, the number of vaccines administered in pharmacies increased by 34% in 2025, reaching 510,000 doses.

The key challenges faced are:

- Mismatch between government vaccination ambitions and willingness to fund effective delivery models
- Existing programmes are seen as inefficient, while prescribing restrictions mean not all pharmacists can prescribe vaccines
- Strict rules that classify proactive vaccine conversations as marketing
- Limitations in documenting yellow fever vaccination in international certificates, due to unclear international alignment, preventing formal recognition of pharmacists within vaccination certification systems
- Fragmented supply system in which vaccines procured by pharmacies are purchased separately at a higher cost than state-tendered vaccines supplied to municipalities.

Promising processes include:

- The Directorate of Health has been tasked with reporting by year-end on:
 - Pharmacy services in comparable countries, including outcomes, transferability to Norway, workforce impact, service access, and regulatory barriers (including vaccine prescribing and administration).
 - How pharmacists and pharmacy technicians can be better utilised within public health and care services.
- A webinar on marketing regulations is due to be held by the Medicines Agency.

4.8.8 Impactful advocacy and collaboration – Malaysia

Speaker: Mr Jack Shen Lim, General Secretary, Malaysian Pharmacists Society (MPS), Malaysia

In Malaysia, the public health case for vaccination, driven by the growing burden among older adults and people living with NCDs, as well as missed prevention opportunities across the system, is clear; however, an implementable pathway is lacking. A recent Malaysian study of adults undergoing haemodialysis in the Klang Valley found that only 10.8% had ever received an influenza vaccination, and just 3.4% were vaccinated annually. Community pharmacy is willing to play a greater role, but reform to improve access requires broader system alignment.

The MPS has explored how community pharmacy could support the expansion of access to adult vaccination. This has included discussions on training, service readiness, and potential access pathways through collaboration with vaccine suppliers. The work has involved academic partners, industry stakeholders, and broader system engagement, with a shared goal not only of expanding scope, but also of improving prevention and reducing missed opportunities. The three main barriers identified by MPS include:

- Training: pharmacist training was developed, but opposition from the medical profession led to the programme being halted
- Law: a clear legal barrier remains around pharmacists administering vaccines by injection
- Access pathway: reclassification efforts did not progress, limiting workable supply models.

Currently, even though the law does not permit administration, pharmacists in Malaysia still contribute to:

- Improving vaccine literacy and confidence
- Identifying and referring eligible adults at the right moment
- Supporting cold-chain, stock management, and practical vaccine handling
- Strengthening pharmacovigilance and adverse event reporting
- Partnering on service redesign to reduce missed opportunities for vaccination.

MPS plans to:

- Continue advocacy in a broader, coalition-led way
- Bring more stakeholders to the table, including patient and public voices
- Work with aligned professional partners and system leaders
- Use FIP resources and global examples to stress-test credible pathways
- Keep the focus on patient access, safety, and trust.

Malaysia's experience shows that even when the need is clear and momentum is built, reform can still stall when law, access, and professional alignment do not move together. More advocacy and collaboration can build a stronger pathway.

4.8.9 Evidence-based communication strategies to build vaccine confidence – Romania

Speaker: Dr Laura Mihaela Palade, Vice President, AFFR, Romania

Romania faces policy, access, and communication challenges. While prevention efforts exist, messaging is fragmented, with government, pharmacies, and doctors communicating separately rather than through a coordinated approach.

Progress has been made in the vaccination framework through several policy measures:

- National Vaccination Strategy 2023–2030, which sets ambitious targets, including 80% influenza vaccination coverage in adults over 60 and 90% HPV vaccination coverage among young people.
- A key 2025 prevention measure for free HPV vaccination up to age 26 for both girls and boys (while HPV vaccination is not yet available in community pharmacies, implementation may be possible soon).

To improve vaccination uptake in Romania, several measures should be considered:

- Unified national communication on vaccination and vaccination sites, including community pharmacies
- Integration of pharmacists into national prevention and vaccination strategies
- Reimbursement for pharmacy vaccination services, aligned with programmes for GPs
- More frequent vaccination training and expanded curriculum for additional vaccines.

Romania has the necessary policies, vaccines and healthcare professionals in place. Combining evidence-based communication with accessible vaccination services can strengthen vaccine confidence, improve vaccination coverage, and support the reimbursement of vaccination services.

4.8.10 Education, training and certification – India

Speaker: Dr Manjiri Gharat, India Envoy, FIP, India (*Recorded presentation*)

Dr Gharat noted that pharmacists are not yet legally authorised to administer vaccines, although they are responsible for storing, handling and dispensing them. Vaccination skills are also not included in undergraduate pharmacy training. In some rural areas, pharmacists informally administer injections, including vaccines, but without legal recognition or appropriate documentation. More broadly, pharmacists are often perceived as traders or dispensers rather than as healthcare providers.

There are between 0.8 and 1 million community pharmacies across India. During the COVID-19 pandemic, the government issued a document identifying pharmacists as potential vaccinators; however, in practice, pharmacists were neither trained nor effectively utilised as part of the vaccination delivery workforce.

The lack of a structured vaccination training programme for pharmacists prompted the Indian Pharmaceutical Association (IPA) to advocate to the government that pharmacists represent an

underutilised healthcare workforce that could be trained to support vaccination services. This is particularly relevant given that many countries successfully enabled pharmacists to administer vaccines through community pharmacies during the COVID-19 pandemic.

A joint initiative by the FIP Community Pharmacy Section and the FIP Academic Pharmacy Section was organised to empower pharmacists in India to vaccinate in their communities, with the following objectives:

- Advocate for regulatory change, allowing pharmacists to vaccinate, and a pilot vaccination training programme
- Implement a pharmacist-led vaccination demonstration service in India
- Develop an evaluation framework for vaccine delivery in a developing-country setting
- Adapt FIP's pharmacist-led vaccination advocacy framework to the Indian context.

The train-the-trainer model adopted was implemented in two categories, as shown in the table below, with the first training session conducted for two batches of 20 pharmacists each in Southern India in December 2023.

Training category	Description	Training duration	Topics covered
Online	15 self-based, India-centric modules	One month	Immunity, vaccination storage, handling, delivery and waste management
Face-to-face	Hands-on vaccination training	Two days	Competency assessment, basic life support training, and trainer guidance to equip participants to train additional pharmacists in the future

A second session was conducted in Mumbai, and the trainers went on to deliver sessions in Belgaum, Southern India and elsewhere. So far, 85 pharmacists have been trained as trainers for vaccination, including the pharmacy academicians.

Going forward:

- Trainers will be supported to cascade vaccination training across regions
- A pilot pharmacist-led vaccination service, initially hospital-based, is being developed to generate evidence for government recognition and regulatory change
- In parallel, an upcoming project on NCDs (hypertension and diabetes) will integrate vaccination into preventive care for ageing populations, aligned with global respiratory NCD priorities. The overall goal is the formal recognition of pharmacists as vaccinators.

4.9 Case study – The Singaporean experience

Country/Territory:	Singapore
Name of the case study author:	Ms. Carolyn Chan Li Min, Mr. Myat Thu Kyaw
Email address:	carolyn.chan@fairpricegroup.sg admin@pss.org.sg

Please share success stories or examples on the role of vaccination in the prevention and management of non-communicable diseases (NCDs) in your country	
Select the category for which the submission is made	<input checked="" type="checkbox"/> Impactful advocacy and collaboration <input checked="" type="checkbox"/> Education, training and certification
a. Current landscape and impact on pharmacy	Singapore's influenza vaccination sandbox, led by the Ministry of Health (MOH) and facilitated by the Pharmaceutical Society of Singapore (PSS), is a strong example of how multi-stakeholder collaboration can expand pharmacists' role in preventive

<p>vaccination policy</p>	<p>care. The programme aims to improve access to influenza vaccination and boost vaccination rates in Singapore.</p> <p>Multi-agency collaborative effort The initiative was made possible through professional partnerships as well as policy framework support from government agencies and the ministry to develop a sustainable and scalable model for pharmacist-delivered vaccination services.</p> <ul style="list-style-type: none"> • Professional engagement & partnership <ul style="list-style-type: none"> • Collaboration with established clinical sites • National Centre for Infectious Diseases (NCID) and National Healthcare Group Polyclinics (NHGP) • Policy framework & regulatory, ministry support <ul style="list-style-type: none"> • Regulatory sandbox via Ministry of Health (MOH) • Government subsidies according to the National Adult Immunisation Schedule (NAIS) <p>Through this coordinated effort, community pharmacists are empowered to administer influenza vaccines under clearly defined protocols. Regulatory support enables a controlled rollout via the sandbox model, allowing real-world testing prior to broader implementation. Close alignment across stakeholders ensures consistency in clinical governance, patient safety standards, and service delivery workflows.</p> <p>Structured education and certification programme An important pillar of the sandbox is the structured training and certification of pharmacist vaccinators, ensuring safe and effective service delivery. Only registered pharmacists who have completed training and competency assessment acceptable to MOH are certified to be pharmacist vaccinators. The training structure comprises:</p> <ol style="list-style-type: none"> 1) Didactic training <ul style="list-style-type: none"> • American Pharmacists Association (APhA)-NUS Pharmacy-based Immunisation Delivery Training Program (20h programme – inclusive of 8h practical), BCLS+AED certification (at least two certified staff onsite when service is in operation), CPR certification for the pharmacist providing the vaccination service 2) On-job-training (OJT) – at least five independent vaccine administrations 3) Competency assessments/simulation training – To apply vaccination-related knowledge and demonstrate reflection in action via four simulation training scenarios <p>There is also a PSS Handbook of Standard Operating Procedures (SOP) for this community pharmacist-led influenza vaccination service. This structured approach builds confidence among pharmacists and ensures consistent quality of care, supporting the long-term development of pharmacists in expanded clinical roles.</p>
<p>b. Public health outcome</p>	<p>This initiative reflects successful advocacy in positioning pharmacists as accessible healthcare providers. By leveraging their strong presence in the community, this sandbox programme improves access to vaccination, enhances uptake and supports national efforts to promote preventive health.</p>
<p>c. Opportunities</p>	<p>This vaccination sandbox initiative strengthens the pharmacy workforce’s capacity to contribute to preventive care. There is potential to scale community pharmacist-delivered vaccination services further and expand its scope, while investing in upskilling and training. This will enable pharmacists to take on broader clinical responsibilities and play an integral complementary role in the primary care system.</p>

5 Relevance of PBV initiation or expansion in NCD care in various regions

Participants shared that a stepwise PBV approach, starting with influenza vaccination, may not be relevant in every context. The key question is: “What should 'step one' look like for a country or region?”

In certain regions, like Southeast Asia with India as an example, influenza exists but is perceived as less significant compared to other infections, so influenza vaccination is not widely used. This creates a gap in policy advocacy, as there is no strong foundation for a life-course immunisation approach. Although NCD initiatives may begin to address this, there is clear potential for a broader immunisation strategy linked to NCD prevention in these regions. The absence of influenza vaccination limits the ability to advance pharmacists' roles in vaccination, which remains minimal in India aside from recent progress with adolescent HPV vaccination.

Malaysia previously lacked a life-course immunisation approach, though this has gained more attention over the past decade, partly driven by pharmacists. There has also been a perception that influenza vaccination is unnecessary; however, this is not entirely accurate. Both northern and southern hemisphere influenza strains circulate, but environmental factors have masked their impact. With increasing urbanisation and widespread use of air conditioning, influenza transmission is rising. As countries transition from low- to higher-income settings, changes in infrastructure and lifestyles are reshaping disease patterns and increasing the relevance of vaccines such as for influenza.

With vaccination, uptake often improves when vaccines are perceived as low-risk and easy to administer. Influenza vaccines are generally well tolerated, with only limited considerations in specific populations, such as those with certain autoimmune conditions. However, as an example from Switzerland, pharmacists firstly initiated PBV through oral polio vaccines, which avoided injections. Similarly, the availability of alternative delivery methods, such as nasal sprays, could make PBV more accessible and easier to implement.

This reinforced the drive to support low- and lower-middle-income countries in expanding immunisation, where the greatest need exists due to high NCD burden and vaccine-preventable infections. There is a requirement to define national priorities through a tailored needs assessment, broaden engagement beyond current stakeholders, and focus more on those who can drive large-scale impact, rather than incremental improvements among already engaged groups.

6 Reflections from summit participants on vaccination data sharing

Vaccination registries in various countries

“In Belgium, there are three regions, and we're working hard to have all actors registered in one place so that everybody can have some sustainable information on vaccination status. APB is working on an intermediary e-form system that feeds directly into the correct national registration platform. While doctors can already access the system, vaccination data sharing is still incomplete, with inconsistent reporting and non-universal system integration.”

Ms Magali Van Steenkiste, Pharmacist-expert, Association of Pharmacists Belgium, Belgium

“In Switzerland, we don't have a registry. We previously introduced an electronic patient plan card, but despite significant investment, it was discontinued. A new health card is now being rolled out, and we are expecting to see how that develops.”

Dr Astrid Czock, Scientific collaborator, Swiss Society of Endocrinology and Diabetology, Switzerland

“We have access to the National Electronic Vaccination Registry, where we record administrations. GPs are informed about vaccination by the patient.”

Dr Laura Mihaela Palade, Vice President, Romanian Association of Pharmacies and Pharmacists (AFFR), Romania

“Since 2022, all vaccines administered in community pharmacies are now being registered directly into the e-vaccination bulletin. Through the national immunisation registry, eligible patients receive SMS messages at the start of vaccine campaigns directing them to either community pharmacies or health centres. Follow-up reminders are sent every 2–3 weeks to those still unvaccinated, maintaining engagement throughout the campaign and supporting high coverage.”

Ms Ema Paulino, President of the National Association of Pharmacies, Portugal

“All health care providers are obliged to document vaccination in a national register.”

Ms Hanne M. Andresen, Director Pharmaceutical Affairs, Norwegian Pharmacy Association, Norway

“In Canada, several provincial registries exist and are not interoperable, creating a major system barrier. Some are modern and digital, while others remain outdated or partly manual. With how quickly AI is moving, there is a real opportunity for a unified registry.”

Dr Shelita Dattani, Vice President, Pharmacy Affairs, Neighbourhood Pharmacy Association of Canada, Canada

“In England, the NHS App provides access to vaccination records, although vaccine information may be listed alongside medicines rather than in a dedicated immunisation section. PBV was introduced before the app was available, but pharmacists can notify GP practices after administering a vaccine, so records are updated in the patient's medical record.”

Ms Heidi Wright, Member, Royal Pharmaceutical Society, Great Britain

“Australia uses a national Australian Immunisation Register, with mandatory reporting of all vaccinations within 10 working days, supported by financial penalties for non-compliance. The system is integrated with other digital health records, enabling data sharing across platforms. Additionally, clinical decision support is strengthened by the freely available Australian Immunisation Handbook, which includes a catch-up calculator that uses patient data (e.g., age, comorbidities, medications, immune status) to guide personalised vaccination schedules.”

Mr Wern Chai, Member, Australasian Pharmaceutical Science Association, Australia

“Fifty separate immunisation registries exist in the USA. In some states, immunisation registries are blocked due to political resistance, with concerns raised about data security and potential hacking. These concerns are often driven by conservative legislators and have prevented the establishment of statewide systems in certain areas, despite their importance for coordinated vaccination tracking.”

Dr Brigid Groves, Vice President for Professional Affairs, American Pharmacists Association, USA

7 Conclusions

Over the past three years, the focus of the FIP Global Vaccination Summit has evolved from influenza vaccination to healthy ageing, and this year to NCD prevention and management, showing the relevance and importance of the gathering. Participants represented a wide range of countries and perspectives, including representation from four countries that were ultimately unable to attend, reflecting broad international engagement. This shift signals a maturing dialogue, with an increasingly clear and expanded role for pharmacists in vaccination. NCD care presents a valuable opportunity to identify at-risk patients at the most accessible points of care.

Pharmacies offer a vital platform for reaching at-risk populations and delivering credible, context-sensitive interventions. Their inclusion in vaccination strategies is essential to achieving equitable and confident vaccine uptake. Key barriers remain consistent across settings: professional “tribalism”, exclusion from vaccination registries, lack of remuneration, regulatory restrictions (even for trained pharmacists), and limitations on vaccine delivery within pharmacies. Despite local differences, these shared challenges highlight the need for coordinated global solutions and continued progress to build on existing achievements.

To advance the integration of NCD prevention and control into PBV, the following recommendations emerged:

1. Establish regional events and knowledge-sharing platforms to exchange lessons and adapt successful models to local contexts.
2. Develop the global toolkit with tools for vaccination data management and registry interoperability.
3. Strengthen evidence generation on pharmacy-delivered vaccination services, including NCD outcomes, cost-effectiveness, and the impact of commissioned services.
4. Translate evidence and data into scalable pharmacy-based care models and expand vaccine delivery within community pharmacy settings.
5. Advance advocacy materials and both unified and tailored campaigns on the role of vaccination in NCD prevention and care.
6. Build pharmacists’ capability through training in life-course immunisation, vaccine confidence, and condition-specific guidance.
7. Promote supportive policy frameworks, including reimbursement models, expanded scope of practice, and access to vaccination information within pharmacies.
8. Enhance integrated vaccination registries to improve data sharing and reduce duplication.
9. Continue webinars, peer learning, and ongoing professional knowledge exchange.
10. Prioritise equity by closing vaccination access gaps in low- and middle-income countries.

Through this report, FIP urges MOs to adopt a strengths-based approach, shifting the focus from constraints towards enabling greater flexibility and innovation and creating space to expand impact further. FIP remains committed to supporting the integration of pharmacy-based vaccination into NCD care and to strengthening life-course immunisation strategies globally, ensuring the optimal delivery of vaccination services by pharmacists.

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