Enabling the implementation of community pharmacy-led toolkits for NCD management

Report from a FIP insight board

2026

FIP Development Goals

International Pharmaceutical Federation

Colophon

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

Co-authors
Dr Inês Nunes da Cunha, FIP Practice Development and Transformation Manager
Gamze Nur Songur, FIP Intern

Editor
Dr Dalia Bajis, Head of Programmes and Provision

Recommended citation
International Pharmaceutical Federation (FIP). Enabling the implementation of community pharmacy-led toolkits for NCD management. Report from a FIP insight board. The Hague: FIP, 2026.

Cover image
© iStock | Credit: Tempura

Contents

Acknowledgements

FIP expresses gratitude and appreciation to all the insight board participants. The list of contributors is available in section 2.

The insight board and report were supported through unconditional funding from AstraZeneca.

1 Introduction

Non-communicable diseases (NCDs) remain one of the greatest global health challenges of our time. According to the World Health Organization (WHO), NCDs were responsible for at least 43 million deaths worldwide in 2021, including 18 million premature deaths occurring before the age of 70.[1] This places a substantial and growing burden on individuals, families, health systems and societies, resulting in significant health, social and economic consequences. Reducing premature mortality from NCDs by one third is therefore a shared global priority, reflected in United Nations Sustainable Development Goal (SDG) target 3.4, and aligned with the WHO Global Action Plan for the Prevention and Control of NCDs 2013–2030.[2, 3]

Global political momentum to address NCDs has been further reinforced through the adoption of a landmark political declaration at the 80th United Nations General Assembly in 2025.[4] Titled "Equity and integration: transforming lives and livelihoods through leadership and action on noncommunicable diseases and the promotion of mental health and well-being", this declaration marks the first time that NCDs and mental health have been addressed together in a single global commitment. It establishes ambitious, measurable, fast-track targets for 2030, including 150 million fewer tobacco users, 150 million more people with hypertension under control, and 150 million more people with access to mental health care.[4] Central to the declaration is a call for integrated, people-centred approaches, strengthened primary health care, equitable access to essential services, and policy and regulatory frameworks that enable sustainable action across health systems.[4]

Within this global context, pharmacists play a central role in addressing NCDs through prevention, early detection, optimisation of treatment and long-term management.[5] As highly accessible healthcare professionals embedded in communities, pharmacists are well placed to support individuals living with chronic conditions through counselling, screening and monitoring activities, medicines optimisation, and timely referral to other healthcare providers. However, the extent to which pharmacists can fulfil this role varies considerably across countries, reflecting differences in national health policies, regulatory environments and health system organisation. These factors can either enable or constrain pharmacist-led interventions, including the implementation of structured tools and services in community pharmacy settings.

In this report, a "pharmacy toolkit" refers to a structured, practice-oriented package designed to support community pharmacists in delivering evidence-based, pharmacist-led services for the prevention, early detection, and long-term management of NCDs. These toolkits translate clinical and public health recommendations into practical components that can be integrated into routine pharmacy workflows, supporting consistent service delivery, patient engagement, and collaboration with other healthcare providers.

Effective management of chronic diseases requires long-term treatment and sustained patient engagement. Evidence suggests that pharmacist-led counselling and personalised interventions can improve medication adherence and overall health outcomes.[9, 10] Together, these findings reinforce the need for policy mechanisms that strengthen the role of pharmacists in chronic disease management and facilitate the practical implementation of toolkits in community pharmacy settings.[9]

Evidence has demonstrated the effectiveness of pharmacist-led activities such as patient education, counselling, screening and referral in identifying and addressing the needs of people living with chronic diseases.[6] For example, a toolkit designed to support community pharmacists in assisting patients with diabetes enabled structured reviews of medication use, lifestyle behaviours, self-monitoring, and adherence to therapy, while also facilitating referrals to general practitioner physicians when necessary.[7] This study found that 65% of patient needs were addressed following pharmacist interventions, with particularly high implementation rates related to dose appropriateness and correct medicine handling.[7] Further research in health literacy underscores the importance of structured tools that empower pharmacists to communicate effectively with patients.[8] By enabling pharmacists to take a more active role in medicines management, self-care, and patient education, thereby contributing to improved outcomes in chronic disease management.

Within this context, the International Pharmaceutical Federation (FIP), through its NCDs Programme and Development Goal 15 on people-centred care, emphasises the need for evidence-based, affordable and feasible interventions to prevent and manage NCDs. FIP actively supports the development and

implementation of pharmacist-led interventions that promote equity in healthcare and empower individuals, patients and caregivers. FIP calls on governments and policymakers, healthcare systems, professional organisations, education providers, and the pharmaceutical industry to enable and support the implementation of pharmacist-led interventions, including structured tools and service models for prevention, early detection, and long-term management of NCDs.[5] Strengthening education and training frameworks is essential to equip pharmacists with the competencies required to deliver these services effectively. FIP further advocates for policy mechanisms that recognise pharmacists as key public health professionals and support collaborative, integrated care models that facilitate the implementation of toolkits and other structured approaches in community settings.

Building on this approach, evidence-based toolkits provide a practical mechanism for translating evidence-based recommendations into routine community pharmacy practice. They support pharmacy teams in identifying individuals at risk, delivering motivational and patient-centred counselling, encouraging appropriate screening and follow-up, and collaborating with other healthcare providers to enable earlier intervention and continuity of care. To support consistent delivery, pharmacist-led NCD toolkits typically aim to build essential disease-related knowledge, facilitate brief risk assessments in the pharmacy, strengthen counselling confidence, support patient action (e.g., screening, monitoring, lifestyle changes), and enable effective communicating and referral within the wider healthcare system. Supportive policy mechanisms are required to reinforce the pharmacist's role in chronic disease management and ensure the effective use of these tools.

In support of pharmacists' expanding role in NCD prevention and control, a series of community pharmacy-led toolkits have been developed to guide pharmacy teams in implementing structured services. Each toolkit is designed to enable integration into existing workflows, and promote collaboration with prescribers to improve patient outcomes. The available toolkits include:

- Chronic Disease Service Framework
- Chronic Kidney Disease Pharmacy Toolkit
- Chronic Obstructive Pulmonary Disease (COPD) Pharmacy Toolkit
- Heart Failure Pharmacy Toolkit
- Hypertension Pharmacy Toolkit
- Supporting patients with uncontrolled hypertension: A toolkit for pharmacists

Each toolkit generally includes four core elements to support structured care delivery:
1. An educational guide
2. An assessment tool
3. A patient information leaflet
4. A referral letter

By supporting policy alignment and integrated care approaches, these toolkits can help optimise healthcare delivery and generate evidence for the role of pharmacists in NCD management. Widespread adoption of these practices could further strengthen the contribution of pharmacists in chronic disease management and support the sustainability of health systems.

As part of the FIP NCDs programme, an insight board was convened in November 2025 to explore how national health policies can facilitate the integration of community pharmacy-led toolkits into NCD management, identify enabling policy levers and policy pathways that support pharmacists' expanded roles, and outline next steps to accelerate implementation at country level. The insight board brought together international experts to examine how policy, regulatory and health system frameworks can support practical adoption of pharmacy toolkits, foster collaboration across healthcare sectors, and enable sustainable, multidisciplinary models of care. Discussions also focused on identifying key enablers for implementation, mechanisms to support implementation research, and approaches to generate real-world evidence to enhance pharmacist engagement in delivering structured NCD services.

Specifically, the insight board aimed to:

1. Identify key enablers, success factors, and supportive policy frameworks that facilitate the practical adoption and sustainable implementation of FIP pharmacy toolkits at local and national levels.

2. Explore opportunities for integration and collaboration between community pharmacies, primary care, and specialist societies (e.g., cardiology, nephrology, hypertension) to embed pharmacy toolkits within NCD management.
3. Assess how policy and regulatory mechanisms can support implementation research and generate real-world evidence to enhance pharmacist engagement and ensure the effective use of pharmacy toolkits for improved patient outcomes.
4. Develop policy pathways to guide scale-up and strengthen pharmacists' role in delivering structured NCD services using the toolkits.

The participants addressed the following questions:

1. What national and regional health policies or health system initiatives currently enable community pharmacies to participate in NCD management?
2. Where such policies exist, how have they empowered pharmacists to integrate pharmacist-led toolkits into routine practice, and what key successes or challenges have been observed?
3. How can collaboration between pharmacies, primary care providers, and professional societies (e.g., cardiology, nephrology, hypertension) be strengthened to embed pharmacist-led toolkits within integrated care pathways?
4. What additional policy, structural, or regulatory support is needed to facilitate the sustainable implementation and scale-up of pharmacy toolkits at national and local levels?
5. Are there existing examples, pilots, or projects that demonstrate the integration of pharmacy-led services into broader care pathways, and how can these insights inform future policy and practice both locally and internationally?
6. How have pharmacist-led toolkits been implemented in practice, and what measurable impacts on patient outcomes, service delivery, or health system performance have been observed?

This report summarises the insight board discussion and highlights the key perspectives shared by participants. The views expressed reflect the expertise and experience of the contributors and, while they may align with or complement existing FIP statements and publications, do not represent FIP's formal policy positions. The insights gathered will inform the development of practical policy pathways and guide next steps in supporting countries in integrating community pharmacy-led toolkits into NCD management, while identifying areas where further advocacy, resources, and capacity building may strengthen the global role of pharmacists in NCD prevention and management.

2 Insight board participants

Moderator	
Dalia Bajis	FIP Head of programmes and provision

Team members (note takers)	
Inês Nunes da Cunha	FIP Practice development and transformation manager
Gamze Nur Songur	FIP intern

Insight board participants		
Hisham Badreldin	Saudi Society of Clinical Pharmacy	Saudi Arabia
Ghada Bawazeer	Saudi Pharmaceutical Society – King Saud University	Saudi Arabia
Jenny Bingham	American Pharmacists Association	USA
Owain Brooks	Lead Renal Pharmacist, South West Wales Department of Nephrology	Wales
Josélia Frade	Brazilian Federal Council of Pharmacy	Brazil
Sónia Romano	National Association of Pharmacies	Portugal
Meike Ruschkowski	ABDA - Federal Union of German Associations of Pharmacists	Germany
Pascale Salameh	FIP DG 13 Lead (Policy Development)	Lebanon
Jack Shen Lim	Malaysian Pharmacists Society	Malaysia
Atsushi Toyomi	Japan Pharmaceutical Association	Japan
Ross Tsuyuki	University of Alberta	Canada
Nobuo Yamamoto	Japan Pharmaceutical Association	Japan
Col. Chen Zheng-yu	FIP China envoy	China
Ana Zovko	Chamber of Pharmacists of the Federation of Bosnia & Herzegovina	Bosnia and Herzegovina

Participants who submitted written responses		
Brigid Groves	American Pharmacists Association	USA

Observers (AstraZeneca representatives)	
Jaquie Finn	Senior Director, Global Strategic Partnerships; Senior Director, Hypertension External Scientific Engagement; Global Medical Affairs, AstraZeneca
Bartek Kozakiewic	Project Service Director, AstraZeneca

3 Current policy and health system context

This chapter examines how national policies, regulatory frameworks, and health system structures influence the adoption and implementation of pharmacist-led NCD toolkits. Drawing on insights from the insight board participants, it highlights variations in professional recognition, identifies structural and operational barriers, and considers gaps between policy intent and practice that affect the ability of community pharmacists to deliver effective, patient-centred chronic disease care.

3.1 Recognition of community pharmacists within health systems

Recognition of community pharmacists varies widely across countries, shaping their scope of practice and capacity to deliver NCD services. While pharmacists are often highly accessible and embedded within communities, formal recognition as essential primary care providers remains inconsistent.

In countries facing economic or political instability, such as Lebanon, pharmacists may encounter major barriers, including absent or unclear regulations, workforce shortages, and limited funding. As one participant noted:

"Community pharmacies are where you find the highest level of contact with the population… yet this is where we have the biggest deficit, due to lack of regulation and policy."

Similar challenges were highlighted in Bosnia and Herzegovina where limited professional recognition restricts service expansion despite existing activities:

"We do provide these services, but we are still not recognised as delivering valuable services within the healthcare system. One of our biggest challenges remains the recognition of pharmacists as essential healthcare professionals within the system."

By contrast, some countries have more advanced recognition frameworks. In Germany, reimbursed clinical pharmacy services and statutory insurance contracts enable community pharmacies to provide structured services such as medication reviews, blood pressure measurements, and inhaler training. These are complemented by e-prescriptions, electronic medication lists, medication-safety initiatives and efforts to foster interdisciplinary collaboration between pharmacists and physicians, thereby strengthening community pharmacists' ability to participate in NCD management. Participants also highlighted that professional recognition is a critical enabler of service expansion and that meaningful progress is being made in some health systems, including the UK:

"Pharmacists need recognition, and this is being addressed in the UK."

Portugal represents one of the more advanced legal frameworks formally recognising community pharmacists as contributors to NCD management within the national health system. Since the late 2000s, national legislation has progressively expanded the scope of pharmaceutical services delivered in community pharmacies, moving beyond a dispensing-focused role towards recognised patient-facing clinical and preventive functions. These include pharmaceutical care programmes, medication adherence and reconciliation services, point-of-care testing, vaccination outside the National Immunisation Programme, basic nursing services, and selected preventive and monitoring interventions for chronic conditions.

"In recent years, Portugal has introduced several legal and contractual measures that enable community pharmacies to play a greater role in chronic diseases management."

More recent legal and contractual reforms have further strengthened this institutional recognition. Decree-Law No. 138/2023 established proximity dispensing of hospital-only medicines through community pharmacies, explicitly positioning pharmacies as integrated access points within the National Health Service. In parallel, Ordinance No. 263/2023 enabled the renewal of chronic medication prescriptions in community pharmacies, granting pharmacists access to patients' prescription and dispensing histories for up to 12

months and reinforcing their recognised role in continuity of care for people living with chronic diseases. Furthermore, Ordinance No. 18/2025 introduced an exceptional reimbursement scheme allowing community pharmacies to dispense medical devices, such as continuous subcutaneous insulin infusion (CSII) pumps and continuous glucose monitoring (CGM) systems, thereby further strengthening pharmacists' active role in chronic disease management.

These legislative advances in Portugal signal a clear policy acknowledgement of community pharmacists as part of primary care delivery, helping to improve access and relieve pressure on other parts of the health system. However, it was also noted that formal recognition has not yet fully translated into routine practice, particularly due to uneven implementation, limited bidirectional digital communication with physicians, and the underuse of structured care toolkits in day-to-day pharmacy workflows.

In the USA, state-level payment-parity statutes and value-based arrangements have enabled pharmacists to deliver NCD services, including medication reviews, adherence support, and biometric monitoring, often integrated into broader care pathways. While measurable improvements in outcomes such as blood pressure and A1C control have been reported in specific programmes, participants highlighted ongoing challenges with regulatory variability, credentialing friction, and data exchange.

In Canada, some provinces provide remunerated medication reviews and follow-up visits for patients with chronic conditions. However, these programmes are often limited in scope, rarely mandate guideline-based interventions, and have shown limited measurable impact on patient outcomes. Efforts are ongoing to better align pharmacist services with national clinical guidelines.

"Some provinces have remunerated medication reviews for diabetes and/or patients with chronic conditions (e.g., in Alberta, cardiovascular disease, COPD/asthma, mental health and addictions), but most have criteria based upon the number of medications."

"Medication review is important, but we need to move beyond it. The ultimate goal should not be reimbursement for performing a review but ensuring ongoing follow-up and continuity of care for patients."

Beyond legal and structural recognition, several participants emphasised the importance of pharmacists actively asserting their professional role within health systems. They highlighted that inconsistent self-positioning and the continued use of derogatory terminology can undermine recognition, even in settings where community pharmacists are delivering clinical services as part of primary healthcare. Clear and confident use of professional language was seen as essential to reinforcing pharmacists' identity as primary healthcare professionals rather than retail actors. As one participant from Canada noted:

"Pharmacists are primary care providers. If we, as pharmacists, do not believe this ourselves, others will not believe it either. We need to be mindful of our terminology and avoid expressions that diminish the profession, such as 'minor ailments' or 'retail pharmacists'. It's particularly bad when our professional organisations still use these terms."

Overall, participants emphasised that formal recognition, demonstrable clinical impact, clear professional identity, and collaborative leadership with other healthcare professionals are essential to enable community pharmacists to contribute meaningfully to chronic disease care within national health systems.

3.2 Structural and operational barriers to service expansion

Participants identified structural barriers, including insufficient digital infrastructure, an unclear scope of practice, and limited reimbursement, as major constraints on the effective use of toolkits. In some contexts, the absence of patient profiles or medication therapy management systems reinforces traditional, product-focused practice models.

"In Lebanon, there is no patient profile, no medication therapy management system to keep track of all that. All of this together results in pharmacists practising in a traditional way."

In Saudi Arabia, recent reforms under Vision 2030 have created favourable conditions through national insurance coverage and unified patient records. However, uptake of pharmacist-led chronic disease services remains limited, with reimbursement and cross-sectoral coordination identified as a key barrier. As one participant noted:

"In Saudi Arabia, NCD-related interventions in community pharmacy are very limited. The regulatory framework is insufficient and there is no reimbursement in place. One major enabler would be stronger collaboration between regulators to support and advance these services."

In Malaysia, while national strategies endorse prevention and community-based care, community pharmacies are not clearly positioned within primary care legislation, creating uncertainty around pharmacists' preventive roles and contributing to tensions with medical groups.

"There is a grey area with doctors, and this has led to some very hostile framing recently by medical groups, who keep referring to community pharmacies as retail. They say it is a medical situation, a medical treatment, that cannot take place in a retail setting. So that is an issue we are facing."

Despite this, community pharmacists in Malaysia are using structured toolkits to demonstrate their contribution to preventive care and to support engagement with policymakers, within what was described as a continuing "push–pull" dynamic between professional resistance and national prevention objectives.

In Japan, structural and professional divides were described as limiting collaboration and slowing progress in NCD care, despite existing national guidelines:

"There is a large gap between physicians and pharmacists… This represents a very high barrier."

Some barriers were also identified in North America, although within more mature service delivery environments. In these settings, challenges relate less to the absence of pharmacist-led services and more to regulatory fragmentation, reimbursement pathways, and service design.

In the USA, pharmacists deliver a wide range of NCD management related services, including medication therapy management, biometric testing (e.g., blood pressure and HbA1c), adherence support, tobacco cessation, continuous glucose monitoring set-up, and test-and-treat services, often under state-level payment-parity statutes, medical-benefit contracts, or value-based payment arrangements. However, at the federal level, pharmacists are not yet formally recognised as providers under Medicare. This limits their ability to independently bill for services nationwide and requires many services to be delivered under physician supervision or collaborative arrangements. As one participant explained:

"Under Medicare, pharmacists are not yet recognised as independent billing providers, so pharmacists can only furnish services under the general supervision of a qualified billing practitioner."

Despite clear evidence of pharmacists' clinical impact in value-based and integrated care models, operational complexity, credentialing friction, and variability across states and payers remain challenges. Ongoing legislative efforts, including the Pharmacy and Medically Underserved Areas Enhancement Act and the Equitable Community Access to Pharmacist Services (ECAPS) Act, aim to address these gaps by expanding federal recognition and reimbursement for pharmacist-delivered services.

In Canada, structural barriers also relate primarily to service design. While some provinces remunerate medication reviews and, in some cases, follow-up visits for people living with chronic conditions, these services are often narrowly defined, inconsistently implemented, and do not mandate guideline-based clinical interventions. Consequently, they have shown limited measurable impact on patient outcomes (like emergency room visits) and should be regarded as a starting point rather than a comprehensive chronic diseases model.

"Just because the scope of practice allows it, does not mean that pharmacists will practice to their full scope. Confidence is a big issue. But also, the lack of adequate staffing, especially by corporate-run pharmacies. A better system of remuneration is needed. A key challenge is a lack of standardisation of pharmacist care across provinces, but also across pharmacies, with some pharmacies providing no guidance to their pharmacists and others providing their own tools (which are often 'watered down')."

3.3 From policy to practice: gaps in law, system design and leadership

Existing legal frameworks were described as decisive in defining the scope and depth of clinical services delivered in community pharmacies. In Bosnia and Herzegovina, for example, pharmacies legally provide blood pressure measurement and monitoring, blood glucose testing, and cholesterol and triglyceride measurements, while medication therapy reviews are offered only in a small number of pharmacies:

"In practice, blood pressure measurement and monitoring, as well as blood glucose testing, are routinely provided by the majority of community pharmacies, while cholesterol and triglyceride measurements are offered less frequently. Medication therapy reviews remain very limited and are conducted in only a small number of pharmacies. Importantly, none of these services are subject to regulated remuneration, as there is currently no legal framework establishing standardised or reimbursable fees. As a result, where fees are applied, they vary across pharmacies and are determined at the discretion of individual providers."

Although these monitoring and review services are permitted, their use remains fragmented and small-scale, reflecting both the ongoing struggle for professional recognition and the absence of structured service models. Strong collaboration between regulators, academia and the profession was identified as essential to scale beyond basic monitoring towards guideline-driven NCD management. Participants also agreed that pharmacist-led toolkits could standardise and link such activities to interventions, follow-up and referral, rather than isolated documentation.

Germany illustrated how policy evolution can progressively reposition community pharmacies within NCD management. Rather than introducing entirely new roles, recent reforms were described as consolidating pharmacists' contributions and signalling a stronger national commitment to prevention and early intervention in non-communicable diseases. As one participant explained:

"In Germany, a new law coming into effect next year (2026) places a stronger emphasis on prevention. This represents an important step forward for strengthening the role of pharmacists."

This renewed focus on prevention creates a more enabling environment for pharmacist-led toolkits, particularly in a system where pilot projects such as ARMIN and the ATHINA programme have already demonstrated the value of services like vaccinations, and improved quality of medication reviews. At the same time, it was stressed that real-world implementation remains constrained by fragmented regional implementation, workload pressures, and the need for clearer shared-care arrangements with physicians and engagement with specialty societies, which must be addressed if toolkits are to become part of everyday workflows rather than optional add-ons.

Despite recent regulatory and contractual developments, a comprehensive, patient-centred approach to chronic diseases management in community pharmacies has yet to be fully adopted in Portugal. Although some guidelines and tools for medication reviews are available to pharmacists, these are not consistently implemented across the sector. Additionally, newly introduced pharmacy software system functionalities to support medication review and chronic therapy renewal are still underused in routine practice. Within the chronic therapy renewal service, pharmacists can send predefined therapeutic notes to prescribers, categorised as "dispense" or "do not dispense", with automatic linkage to the patient's record for communication history and responses. However, the limited visibility of these notes in prescribers' systems has led many pharmacies to reduce their use, underscoring persistent challenges in digital interoperability and workflow design.

Strengthening bidirectional communication, ensuring that pharmacist-generated information is visible and actionable for prescribers, and aligning these tools with structured NCD toolkits were identified as critical steps to embed pharmacist-led interventions into everyday practice. In addition, mandatory training and legal recognition of pharmacist competencies for advanced clinical services, supported by national certification and clear regulatory frameworks, were seen as essential to drive the adoption of standardised tools and promote quality, scalability and sustainability of community pharmacy services.

"In Portugal, pharmacists can send therapeutic notes to doctors, but they do not receive responses. The information flow is not truly bidirectional. We are making important progress, but there remains considerable room for improvement."

These gaps illustrate how policy maturity does not automatically translate into patient-centred practice without supportive system design.

Several participants emphasised that policy frameworks alone are insufficient without operational integration, digital infrastructure and clear incentives. Beyond legislation, they repeatedly underscored the need for strategic leadership, professional unity and robust quality assurance mechanisms to ensure that pharmacist-led toolkits translate into consistent practice rather than isolated projects.

Lebanon was highlighted as a setting where the absence of clear policy frameworks and coordinated leadership substantially limits the role of community pharmacists in NCD management, despite professional motivation and expertise. The Lebanese participant stressed that fragmented governance and siloed working relationships undermine the implementation of structured services and toolkits:

"In Lebanon, existing regulations are outdated, and suggested strategies are not implemented. We need pharmacy leaders to take the lead, and educators, practitioners and regulators must all be involved. As long as we continue working in silos, we will not be able to progress."

Participants also emphasised the importance of collaboration within the pharmacy profession, including between educators, researchers, and practitioners, as well as sustained engagement with regulators, prescribers, ministries, and scientific societies. Without shared ownership, clear governance structures and rigorous evaluation frameworks, pharmacy-led services and toolkits struggle to achieve the credibility, scale and sustainability required to influence national NCD management models.

4 Pharmacists' roles and responsibilities in toolkit implementation across health systems

Insight board participants described how the role of pharmacists in implementing toolkits is shaped by the structures, priorities and incentives of their respective health systems. The extent to which pharmacists can deliver chronic disease management, screening and follow-up services varies considerably. Several common themes emerged across countries, including national leadership, alignment with clinical guidelines, multidisciplinary engagement, and appropriate funding mechanisms to support sustainable implementation.

4.1 System-level enablers: leadership, regulation and financing

Strong national leadership and well-coordinated health system structures were identified as crucial for implementing and scaling up pharmacist-led services. In more centralised systems, such as in Wales, where the country's relatively small size and strong professional networks enable efficient stakeholder coordination, aligning strategic objectives with education programmes was considered essential.

In Wales, the national community pharmacy contract provides a strong framework into which clinical toolkits could be incorporated. The recently published Chronic Kidney Disease (CKD) Health Pathways platform and CKD e-learning module for primary care health professionals support the screening, management and referral of people with CKD. These resources were co-produced with specialist renal services and are accessible to community pharmacists. However, in the absence of a defined CKD focus within community pharmacy, these resources are less likely to be routinely used and deliver their potential benefit in this setting.

Community Pharmacy Wales (CPW) represents all pharmacies in Wales on NHS matters. Ahead of the 2026 Welsh Government elections, CPW has identified four key priority areas for political parties to address to ensure the sustainability and effectiveness of the community pharmacy network. One of these priorities is recognising the potential of community pharmacy to play a leading role in a national ill-health prevention agenda.

"With appropriate targeted investment, community pharmacies could play a greater role in the management of long-term conditions in Wales. This is where well-designed clinical toolkits would add value, supporting pharmacy teams to deliver more consistent care and improved outcomes for patients."

Across countries, regulatory clarity and alignment with clinical guidelines were identified as central to defining pharmacists' responsibilities and enabling the structured implementation of toolkits. Participants described how formal regulatory reforms and reimbursement mechanisms can incentivise standardised, guideline-driven services.

In Saudi Arabia, national professional societies have played a key role in shaping practice through formal agreements and guideline development:

"Initiatives for pharmacist-led services are increasingly common in ambulatory care settings across health institutions such as King Saud University Medical City (KSUMC), typically delivered under collaborative practice agreements to address specific disease states or patient populations, such as geriatric care, diabetes management, and osteoporosis clinics."

"Over the past seven years, the Saudi Society of Clinical Pharmacy (SSCP), in collaboration with other medical and pharmaceutical societies and organisations, has published more than 30 medication-related clinical practice guidelines, position statements, and white papers to help standardise and strengthen pharmacists' roles in clinical practice and pharmacy services."

These guidelines define clinical pathways, treatment protocols and competency requirements, and are increasingly linked to insurance reimbursement decisions:

"The Centre for National Health Insurance will ultimately rely on these guidelines and care pathways to determine how conditions are treated."

Integrating pharmacist competencies into reimbursement frameworks was considered to strengthen the delivery of toolkit-aligned services. However, it was thought that regulatory reform alone would be insufficient without operational integration.

4.2 Multidisciplinary engagement and collaboration with scientific societies

Engagement with scientific societies and multidisciplinary stakeholders was consistently identified as a critical enabler for embedding pharmacist-led toolkits into chronic disease pathways. Early collaboration was described as particularly important for building legitimacy and long-term sustainability.

In Germany, early collaboration with professional societies helped co-design services from the outset, using pilot data to demonstrate value and secure scaling:

"For the clinical pharmacy service in which we measure blood pressure, we collaborated with the German Society of Cardiology from the very beginning. […] We first collected data over many years to demonstrate to policymakers how they could work in practice, which ultimately enabled pilots to be implemented and scaled."

Participants from other regions similarly emphasised that formal endorsement of toolkits by medical associations is essential for integration. In Canada, pharmacists have successfully embedded themselves within national clinical guidelines by working directly with specialist bodies:

"I suggest that we ask medical professional associations to endorse the toolkits. In Canada, pharmacists were already embedded in some of the guidelines, leading the national hypertension and dyslipidaemia guidelines."

Beyond guidelines, participants highlighted the need for practical, structured partnerships to operationalise collaboration. In Brazil, the importance of co-signed protocols and digital communication platforms was underscored as a pragmatic way to link pharmacy services with primary care teams and specialists. As the Brazilian participant suggested, formal agreements are essential to validate pharmacist-led toolkits:

"We need clinical protocols co-signed by societies—such as cardiology, hypertension and nephrology—and the Federal Council of Pharmacy to validate pharmacist-led toolkits. These should include for example screening algorithms, urgent referral criteria, blood pressure targets and adherence checklists. National guidelines can serve as the formal basis for these protocols."

Similarly, in the USA, the need to move beyond general collaboration towards contractual integration based on shared quality measures was also emphasised. Mapping pharmacist-led toolkits to established performance metrics was seen as vital for securing payer support and embedding services in care pathways:

"Co-design measure-aligned bundles with primary care practitioners and specialty societies: map toolkits to HEDIS/Universal Foundation measures (A1C control, BP control, kidney health evaluation, statin use), then contract for bundled services with shared dashboards and bi-directional data. Prioritise rural access partnerships to divert avoidable emergency visits and share outcomes with specialty societies to reinforce integrated pathways."

Alongside structural agreements, clear communication about professional roles was identified as essential to overcome resistance. The participant from Bosnia and Herzegovina stressed that collaboration starts with reassuring physicians that pharmacists are partners who can save them time by managing adherence and lifestyle education, rather than competitors:

"Building collaboration starts with clear communication: explaining our role, showing which parts of the care pathway we can take responsibility for, and reassuring physicians that we are not interfering with their work. On the contrary—our involvement makes their work more effective and improves patient outcomes."

To sustain this collaborative culture long-term, participants emphasised that engagement must start early in professional training and be supported by robust data. A participant from the USA highlighted the need to embed toolkit training across pharmacy, medicine and nursing curricula, while generating evidence of return on investment:

"Instead of focusing solely on publishing a single pilot study using a toolkit, prioritise conducting and disseminating additional research to demonstrate its value and return on investment across diverse practice settings. Additional focus on interprofessional education in schools of pharmacy, medicine, nursing with toolkit training."

This view was reinforced by the Lebanese participant, who identified shared education and government-led projects as necessary to establish a collaborative culture:

"Interprofessional education and common projects led by health authorities are necessary to establish a sustainable collaborative culture."

Portugal's experience further demonstrates how collaboration can be strengthened through structured partnerships involving pharmacy associations, professional orders, scientific societies, academia and public health institutions (like the Directorate General of Health). The Portuguese participant highlighted that such partnerships should go beyond high-level endorsement to focus on co-developing and validating shared clinical protocols that embed pharmacist-led toolkits within integrated care pathways.

One practical example was the C-SENIoR pilot project, which was developed through collaboration between family physicians and community pharmacists. This intervention used a structured toolkit containing a pharmacist intervention flowchart, pharmacist guidelines, patient leaflet and a structured communication document between physicians and pharmacists, all of which were aligned with clinical guidelines to support the deprescribing of inappropriate proton pump inhibitors in older adults.

Crucially, the Portuguese participant emphasised that these collaborative models must be underpinned by rigorous evaluation to ensure sustainability:

"Partnerships should focus on co-developing and validating shared clinical protocols that embed pharmacist-led toolkits within integrated care pathways, supported by outcome measurement and impact evaluation frameworks."

5 Drivers for sustainable implementation and impact of pharmacy-led toolkits in community pharmacies

Successful implementation and meaningful impact of pharmacy-led toolkits depend on coherent system-level enablers, including clear role definition, alignment with clinical guidelines, sustainable remuneration, digital integration and strong cross-sector collaboration. Across countries, fragmented policy approaches were found to limit scalability, whereas coordinated frameworks supported the transition from isolated pilot initiatives to routine, system-embedded NCD management services.

Advancing pharmacy-led toolkits requires aligned action across education, governance, remuneration and digital infrastructure. In the absence of these foundations, even well-designed toolkits struggle to progress beyond demonstration projects. This chapter explores three critical drivers identified by participants as essential for sustainable implementation: strengthening professional identity; generating robust evidence for policy investment; and, ensuring digital integration alongside sustainable reimbursement models.

5.1 Strengthening professional identity and clinical credibility

Professional identity, clinical credibility and leadership were identified as key factors shaping the acceptance of pharmacist-led services in community pharmacies. Participants emphasised the importance of reframing how services were described and positioned strategically to overcome resistance and enable clearer pharmacist leadership in the management of long-term conditions.

5.1.1 Strategic reframing for acceptance

Terminology was described as a key factor influencing clinical credibility, with reframing seen as a necessary step to strengthen pharmacists' positioning as clinical providers within NCD management. In Malaysia, national policy supports prevention and community-based care through the Health White Paper and NCD strategies, yet community pharmacies occupy a policy "grey area" as they are not clearly defined within primary care. Some medical groups publicly labelled pharmacies as "retail" operations, arguing chronic diseases management services should not be delivered there. In response, the Malaysian Pharmacists Society reframed pharmacists' contribution by rolling out toolkits within a preventive care framework and clarifying that pharmacists deliver clinical, not retail, services. The participant described positioning NCD management activities as medication therapy adherence clinics (MTACs)—adapting the established Ministry of Health model from government hospitals to community pharmacies—as key to gaining acceptance:

"Language really does shape perception. … When we talk about chronic diseases, we emphasise medication adherence clinics … That reframing has helped us carve out a clearer role."

5.1.2 Building credibility through specialist collaboration

Engagement with scientific societies was highlighted as a key credibility-building strategy. In Malaysia, the adoption of the FIP CKD Toolkit followed a multidisciplinary approach involving specialist nephrologists, renal clinical pharmacists and other experts. The Malaysian Pharmacists Society plans to continue engaging other disciplines and societies, including the Malaysian Society of Nephrology, to improve broader NCDs toolkit adoption, although challenges remain in securing sustained engagement from general practitioners.

In the UK, growing recognition of pharmacists' leadership potential in cardiometabolic care was described, particularly as treatment pathways become more complex:

"There is recognition from nephrologists, cardiologists, and endocrinologists that, particularly in this area of medicine, pharmacists can play a leading role in this work. This is especially important, given the rich pipeline of combination medications that are coming through."

In Japan, collaboration between the Japan Pharmaceutical Association and the Japanese Heart Failure Society demonstrates growing specialist recognition. In June 2024, a new post-dispensing medication management guidance fee was established for chronic heart failure patients, requiring collaboration between medical institutions and pharmacies. The two organisations co-developed the "Guidance for Pharmacists on Medication Management for Heart Failure" to clarify minimum interprofessional requirements, aiming to reduce re-hospitalisations and improve medication adherence and patient quality of life.

Professional identity and clinical credibility thus serve as foundational drivers, enabling pharmacists to claim legitimate leadership roles essential for sustainable toolkit implementation.

5.2 Evidence generation as a driver of policy and investment

Participants consistently emphasised that generating evidence is essential for advancing pharmacy practice and securing long-term investment in pharmacist-led services. They saw high-quality, measurable evidence as essential for demonstrating the clinical, economic and system-level value of pharmacist interventions within chronic disease pathways. Participants emphasised the importance of well-designed pilot studies, pragmatic trials, and coordinated research agendas supported by professional organisations to effectively translate evidence into policy decisions and funding mechanisms.

"We must demonstrate that whenever pharmacists intervene, we generate value for the health system… Decision-makers need convincing evidence that investing in pharmacists—by paying for these services—is cost-effective."

"One of the most important elements we need moving forward are global data demonstrating the cost savings and health system benefits of involving pharmacists in NCD management."

In settings where national data are limited or policy frameworks remain underdeveloped, participants described international evidence and global toolkits as particularly influential. Consolidated, cross-country data were seen as critical advocacy tools to support professional recognition, justify public investment and accelerate policy uptake at national level.

In contrast, in countries with more established policy and digital infrastructures, evidence generation is increasingly embedded into routine service development. Portugal provides a clear example of this approach, where national data collection and structured evaluation frameworks allow pharmacists to systematically measure the impact of their services, strengthening the case for integration into health system funding and decision-making processes.

"In Portugal, whenever we develop a new pharmacy-based service, we try to gather evidence to measure its impact and to demonstrate the value of the service to our National Health Service."

In China, pharmacists' roles in NCD care remain restricted despite their large community pharmacy workforce. The participant described connecting community pharmacists with hospital pharmacists for follow-up care, and highlighted the value of international toolkits where local evidence is limited:

"Earlier this year, we translated the COPD toolkit from FIP, which was very helpful… This highlights the importance of expanding the role of community pharmacists so they can contribute more meaningfully to healthcare within the community."

Participants highlighted how rigorous evidence generation, particularly through randomised controlled trials (RCTs), accelerates policy uptake by demonstrating pharmacist-led care's full scope and system value. In Canada, numerous RCTs across hypertension, dyslipidaemia, cardiovascular risk, atrial fibrillation, and urinary tract infections demonstrate consistent patient outcome improvements and positive economic benefits. The Canadian participant also described the evolution to electronic "Care Pathway" toolkits that operationalise national guidelines through case-finding, assessment (including "red flag" identification), treatment with shared decision-making, and follow-up:

"Recently, we have been creating and evaluating electronic toolkits for pharmacists, which we call "Care Pathways". … Essentially, we translate national guidelines into actionable steps for pharmacists."

In the USA, participants highlighted how evidence-informed collaboration between pharmacists and payers is accelerating policy uptake and investment in pharmacist-led services. The American Pharmacists Association (APhA) has recently released recommendations developed through a year-long learning collaborative involving health plans, pharmacy practices, and quality organisations. These recommendations translate real-world evidence and implementation experience into practical guidance for expanding coverage of pharmacists' services under health plans' medical benefits.

APhA shared examples such as Arkansas Blue Cross credentialing pharmacists as network providers to bill evaluation and management services, including test-and-treat visits, contraceptives, naloxone provision, and tobacco cessation. Meanwhile, pilot programmes in North Carolina and Michigan have demonstrated measurable improvements in health outcomes, such as better blood pressure control and reduced HbA1c levels, while value-based programmes have documented reductions in emergency department visits and hospital readmissions. Together, these initiatives provide policymakers and payers with the concrete clinical and economic evidence they require to support sustainable payment models for pharmacists' services.

Participants emphasised that, without formal financial coverage recognising the time and professional expertise of pharmacists, evidence-based services are unlikely to progress from successful pilot schemes to scalable, system-wide models of care.

Building on this, participants noted that evidence must be communicated in formats and metrics that align with the decision-making frameworks used by policymakers and payers. In addition to demonstrating clinical effectiveness, it is crucial to present pharmacist-led interventions as compelling investments within constrained health budgets by providing economic evaluations, cost-avoidance analyses and system-level indicators, such as reduced hospital admissions and emergency department utilisation.

Collectively, these experiences demonstrate that evidence generation is not a peripheral activity, but a strategic driver of policy change and investment in pharmacist-led care. When supported by rigorous research, validated implementation tools and coordinated international learning, evidence enables policymakers and payers to recognise pharmacists' contributions and integrate pharmacist-led services sustainably within health systems.

These examples also highlight that evidence generation alone is not sufficient; sustainable integration of pharmacist-led services requires complementary investment in digital systems and reimbursement models, as discussed in Section 5.3.

5.3 Digital integration and sustainable reimbursement models

Participants highlighted that limited digital integration can constrain the real-world impact of enabling legislation, with direct implications for service visibility, interprofessional collaboration and, ultimately, the sustainability of pharmacist-led services. Even where policy frameworks formally authorise expanded pharmacist roles, weak digital interoperability and unclear workflows were described as significant barriers to routine implementation and reimbursement.

Portugal illustrates how enabling legislation alone is insufficient without effective digital integration. Recent laws authorise community pharmacies to deliver medication reviews and chronic disease medication renewal services, supported by electronic prescribing and access to patients' prescription and dispensing histories. While these measures establish strong structural foundations, the Portuguese participant noted that practical implementation remains limited, with a fully embedded patient-centred approach still emerging. In particular, challenges persist in bidirectional digital communication between pharmacists and prescribers. Although pharmacists are authorised to transmit structured therapeutic notes within electronic systems, poor visibility within prescribers' software and limited feedback mechanisms have reduced engagement and undermined the perceived value of these tools.

Participants emphasised that such digital fragmentation weakens continuity of care and reduces the visibility of pharmacists' clinical contributions, ultimately constraining the case for sustainable reimbursement. Without interoperable systems that allow pharmacist-led interventions to be documented, shared and acted upon across care settings, services struggle to progress from policy authorisation to routine, funded practice.

Similar challenges were noted in other settings. In the UK, the growing need for digital platforms to support pharmacist-led services as care pathways become more complex was also highlighted. In Germany, despite strong regulatory and professional foundations, scaling pharmacist-led services was described as dependent on more consistent reimbursement mechanisms, interoperable digital systems and clearer shared-care frameworks with physicians.

> *"Overall, Germany has built a solid foundation, but scaling requires more consistent reimbursement, interoperable digital systems, and clearer shared-care frameworks with physicians."*

In Brazil, national regulatory resolutions expanding pharmacists' clinical responsibilities were described as critical enablers, providing a legal basis for pharmaceutical care, therapeutic monitoring and telepharmacy models that support digital or hybrid toolkit implementation.

Beyond digital infrastructure, participants stressed that visibility within the wider healthcare ecosystem is equally critical for the sustainability of pharmacist-led services. Contributors from the USA emphasised that recognition beyond the pharmacy profession is essential to securing influence, policy traction and long-term sustainability. Publishing high-quality evidence in non-pharmacy journals, engaging with broader healthcare audiences and embedding pharmacists' roles within interprofessional education were described as key strategies to strengthen visibility and support integration into value-based and outcomes-focused care models.

Participants consistently noted that digital integration, visibility and reimbursement are closely interlinked. Sustainable payment models depend not only on evidence of effectiveness, but also on systems that make pharmacists' clinical work visible to payers, policymakers and other healthcare professionals. Where digital tools support documentation, communication and outcome measurement, pharmacist-led services are more likely to be recognised, contracted and embedded within routine care pathways.

Table 1 summarises the key enablers identified by participants as critical to the successful implementation, scaling and sustainability of pharmacy-led toolkits. Across diverse health system contexts, coherent policy frameworks, professional role clarity, robust evidence generation, digital integration and sustainable remuneration mechanisms were consistently highlighted as determining factors in moving from isolated pilot initiatives to routine, system-embedded NCD management services.

Table 1. Country examples of system-level enablers supporting the sustainable implementation and impact of pharmacy-led toolkits

Enabler	Country examples and implementation insights
National/regional policies and regulatory frameworks enabling pharmacists' clinical roles	• **Germany**: Statutory health insurance framework contracts formally authorise the provision of structured clinical pharmacy services. • **Brazil**: Federal Council of Pharmacy (CFF) Resolutions 585/2013 and 586/2013 formally define pharmacists' clinical responsibilities and support the expansion of clinical practice in community pharmacies. In parallel, national programmes such as Farmácia Popular strengthen access to essential medicines but do not include pharmacist-led clinical services. • **USA**: State and federal policy frameworks enable coverage of pharmacist-delivered clinical services under the medical benefit, including provider enrolment and credentialing, use of standard medical billing codes, and reimbursement through Medicaid, commercial and value-based payment models. • **Canada**: Legislation and remuneration frameworks enable pharmacists to deliver medication reviews and follow-up visits, with scope and implementation varying by province.

Enabler	Country examples and implementation insights
	• **Portugal**: National legislation authorises community pharmacies to deliver medication reviews and chronic therapy renewal services, establishing a legal foundation for expanded pharmacist-led care. • **Wales**: Community pharmacy services in Wales are delivered under a national contract with Welsh Government and local health boards. This defines core, advanced, and enhanced services, including common ailments, flu vaccination, emergency supplies, contraception, sore throat test & treat, Medicines Use Reviews, and Discharge Medicines Reviews. More information is available here.
Professional identity, terminology and role reframing	• **Malaysia**: Strategic reframing of pharmacists' roles within preventive and chronic diseases management (e.g., medication therapy adherence clinics) strengthened professional identity and clinical credibility; collaboration with the national nephrology society supported acceptance of community pharmacy-based services. • **Japan**: Participants highlighted the need for clearer role definition between physicians and pharmacists to reduce professional boundaries and enable more effective collaboration in chronic disease management.
Clinical partnerships and collaboration with medical or specialist societies	• **Malaysia**: Engagement with the Malaysian Society of Nephrology supported adoption and credibility of the CKD toolkit. • **Wales**: Growing recognition by cardiologists, nephrologists and endocrinologists of pharmacists as leaders in cardiometabolic care, particularly as treatment pathways and combination therapies become more complex. • **Brazil**: Alignment with national clinical protocols and guidelines for hypertension, diabetes and chronic respiratory diseases, supporting pharmacist involvement in screening, monitoring and referral pathways.
Evidence generation, publication and use of global toolkits to inform policymakers	• **Lebanon**: Emphasis on the need to generate robust, measurable clinical and economic evidence to demonstrate the value of pharmacist-led services and support policy change. • **USA**: Publication of pharmacist-led service outcomes in high-impact, non-pharmacy journals increased visibility beyond the profession and strengthened engagement with policymakers and payers. • **Canada**: Extensive use of randomised controlled trials across multiple NCD areas generated high-quality clinical and economic evidence, directly informing policy decisions, remuneration models and national guideline implementation. • **Malaysia**: Participant highlighted the need for consolidated international evidence and global toolkits, coordinated through FIP, to support legislative recognition and advocacy efforts.
Toolkit integration and implementation within routine practice	• **Germany**: Use of standardised toolkits for blood pressure measurement, medication reviews and inhaler technique supported structured delivery of NCD management services. The use of these toolkits guide pharmacists through structured, step-by-step assessments and generate clear recommendations that patients can act on immediately. • **Brazil**: Toolkits aligned with national clinical guidelines supported pharmacist-led monitoring, adherence support and blood pressure control in pilot settings. • **Canada**: Electronic "Care Pathway" toolkits translated national cardiovascular guidelines into structured workflows, including case-finding, assessment, shared decision-making and follow-up. • **China**: Translation and local adaptation of the COPD Pharmacy Toolkit supported implementation of pharmacist-led interventions and legitimised expanded roles where local evidence remains limited. • **Bosnia**: Standardised monitoring charts and translated guidance documents supported early-stage national implementation through the professional chamber.

Enabler	Country examples and implementation insights
Interprofessional education and shared learning	• **Lebanon**: Interprofessional education initiatives were described as improving mutual respect and facilitating integration of pharmacists into chronic diseases management teams. • **USA**: Embedding interprofessional learning across medicine, pharmacy, nursing and dietetics curricula supported shared understanding of pharmacists' roles within team-based care models. • **Japan**: Collaborative learning approaches with general practitioners were identified as essential to overcoming structural and professional barriers. • **Wales**: Health Education and Improvement Wales (HEIW) provides education, training, and workforce development for healthcare professionals, supporting collaborative learning and high-quality care.
Digital integration and patient-facing innovation	• **Wales**: Use of digital self-assessment tools (e.g., online kidney health checker) enabled wider reach of pharmacy-linked services while managing workforce capacity. The Electronic Prescription Service (EPS) Programme, which is led by Digital Health and Care Wales (DHCW), makes the prescribing process easier and safer for patients and healthcare professionals. • **Portugal**: Digital systems support pharmacist–prescriber communication for medication review and chronic therapy renewal, but improved bidirectional interoperability and visibility remain critical enablers for routine implementation. • **Brazil**: Regulatory frameworks enabling telepharmacy and hybrid digital service delivery supported implementation of toolkit-based pharmaceutical care models.
Financial incentives, reimbursement mechanisms and scalable service models	• **USA**: National recommendations issued by the American Pharmacists Association (APhA) to guide collaboration between pharmacists and health plans, supporting coverage of pharmacists' patient care services under the medical benefit and facilitating provider recognition, credentialing and sustainable reimbursement models. • **Malaysia**: Chain pharmacies adopt new services more rapidly than independent pharmacies, facilitating faster scaling of toolkit-based care. • **Brazil**: National programmes integrating private pharmacies into free provision of medicines for hypertension and diabetes, expanding access points for monitoring and follow-up. • **Wales**: National contract, including reimbursement for essential and clinical services.

A more detailed comparative overview of national policy contexts, health system enablers, barriers and current pharmacist roles across participating countries is provided in the Appendix. This supplementary table offers additional contextual insight supporting the drivers discussed in this chapter.

6 Country case studies

To illustrate how pharmacist-led NCD toolkits can be implemented in practice, this report presents two country case studies from FIP member organisations that have actively integrated these structured services into community pharmacy practice: the Malaysian Pharmacists' Society and the National Association of Pharmacies in Portugal. The case studies highlight local implementation strategies, enabling factors, and challenges, as well as the observed impacts on patient care and health system outcomes, offering practical lessons for other countries seeking to adopt similar approaches.

6.1 Malaysia

Country:	Malaysia
Member Organisation:	Malaysian Pharmacists Society (MPS)
Author(s):	Jack Shen LIM
Toolkit implemented:	Chronic Kidney Disease (2024) Chronic Disease Initiation Toolkit (partial, adapted)

Description of the toolkit used

(Please briefly describe the components and tools included — e.g., screening forms, counselling checklists, risk assessment algorithms, referral pathways, patient education leaflets, or digital tools.)

Chronic Kidney Disease (Adoption in 2024)

- Risk assessment algorithms: adoption of Chronic Kidney Disease (CKD) risk assessment tool with 2024 KDIGO evaluation and alignment with Malaysian MOH Clinical Practice Guidelines (CPG)
- Adoption of CDC SCORED questionnaire for risk assessment
- Adoption of referral letter (for community pharmacists to use as templates
- Use of eLearning resources to train pharmacists

Chronic Disease Initiation Toolkit (2025)

- Adoption of components for the MPS Preventive Care Framework

[Section A] Background and objectives

1. What was the main rationale for implementing this toolkit in your country/organisation?

- MPS identified that undiagnosed CKD is a major issue in Malaysia where community pharmacists can intervene; epidemiologically, 1 in 10 have CKD with an estimated death rate of 41.5%.
- Data shows that 86% of CKD in Malaysia is prevalent in individuals with diabetes mellitus and hypertension—NCDs where patients constantly interact with community pharmacists.
- Malaysia has one of the highest incidences of NCDs and obesity in the region and this in turn will increase the prevalence of CKD.
- CKD is under detected in the community—often presenting to tertiary institutions as late stage/end stage.

2. What were the objectives of introducing this toolkit in community pharmacy practice?

- To highlight the ideal position community pharmacists (CP) can play in the early detection of CKD.
- To train and improve CP practice in this area (and in general—shifting towards provision of services with products, rather than just products alone).
- To improve community pharmacists' participation in primary health care (showing value of CPs to the healthcare system).
- To highlight to the government / health system to include renumeration of pharmacists into this area.

[Section B] Implementation and workflow

3. **How was the toolkit introduced and integrated into pharmacy workflows?**

- Introduced by the MPS on a voluntary basis.
- Allows for individual community pharmacies to adopt into their workflows.
- Priority in this phase is education and training of pharmacists.

4. **What were the main steps or workflow stages in practice?** (e.g., patient assessment, counselling, referrals, documentation, follow-up)

- Patient risk assessment (using toolkit with CDC SCORED).
- Counselling of at-risk patient and referral to GP/doctor.

5. **Which stakeholders were involved in the implementation?** (e.g., pharmacy teams, other primary care providers, professional societies, policymakers)

- Pharmacy teams (independent & chain community pharmacies).
- Professional bodies: MPS (pharmacists).
- Policymakers (Ministry of Health).
- Endocrinologists & nephrologists (medical).

6. **What training, education, or support was provided to pharmacists or pharmacy teams?**

- eLearning modules as adapted and adopted from the toolkit.
- Additional information: Malaysian MOH Clinical Practice Guidelines.
- Format for referral letters.

[Section C] Outcomes and impact

7. **What measurable impacts or outcomes were observed?** (e.g., percentage of patient needs addressed, improved adherence, dose appropriateness, completed referrals)

- No data as yet on outcomes at the patient level.
- Training progress (July 2025): 885 pharmacists have completed the training.

8. **Were there any qualitative impacts observed?** (e.g., patient satisfaction, pharmacist engagement, workflow improvements)

- Pending data collection at a later stage.

9. **Was any evaluation or monitoring conducted to assess effectiveness?**
If yes, please provide a short summary of findings or reference tools or indicators, how data was collected.

- Not yet.

[Section D] Enablers and challenges

10. **What key factors or conditions facilitated the implementation?**

- Support (financial/resource) from pharmaceutical industry partner.
- MPS implementation of the Preventive Care Framework.
- Identified need: overburdened health system, opportunities for pharmacists in preventive and primary care.
- Shift towards a community-based model.

11. What challenges or barriers were encountered? (*e.g., policy, regulatory, operational, patient-related)*

- Lack of an existing framework for the provision of chronic disease management service.
- No separation of dispensing and prescribing (and overlap of duties).
- Resistance from medical doctors (particularly those in general practice).
- Lack of engagement and participation from independent community pharmacies.
- Lack of workforce intelligence and difficulty in collecting implementation data.

[Section E] Lessons learned and recommendations

12. What advice, tips, or reflections would you share with other member organisations considering implementing pharmacy-led NCD toolkits?

- Do not wait for the perfect conditions to start; build it via pilots or modular formats to enable fast implementation.
- Monitor/measure, evaluate and adjust to improve success rate.
- Resistance from other healthcare professionals may occur, but persist to chart the course of the profession while engaging them.
- Consider a push for renumeration/financial model to improve rate of adoption (especially in independent CPs).

13. Are there any future plans to expand or scale up the toolkit?

- The MPS has evolved from implementing a toolkit to building a framework for community pharmacy practice in preventive care (Preventive Care Framework).
- Intention to expand to implement FIP toolkits in Cardiovascular-Kidney-Metabolic disease, expanding from CKD to heart failure and hypertension.
- Rollout of toolkits will be part of the framework.

6.2 Portugal

6.2.1 Case Study 1

Country:	Portugal
Member Organisation	National Association of Pharmacies (ANF)
Author(s):	Joana Pinto
Toolkit implemented:	Chronic Obstructive Pulmonary Disease (COPD) Community Pharmacy Toolkit

Description of the toolkit used

(Please briefly describe the components and tools included — e.g., screening forms, counselling checklists, risk assessment algorithms, referral pathways, patient education leaflets, or digital tools.)

The Chronic Obstructive Pulmonary Disease (COPD) Community Pharmacy Toolkit is a structured, standardised, and flexible package that enables community pharmacies to deliver evidence-based, guideline-aligned COPD services across the care continuum:

- early identification and risk stratification
- medication optimisation
- patient education and self-management
- integrated referral and follow-up

It operationalises GOLD recommendations within routine pharmacy workflows and supports value-based care objectives: better outcomes, better experience, and more efficient use of healthcare resources. It was supported by a Pharmacy Team Training Programme, comprising clinical and intervention webinars, as well as a Disease Guide and Programme Manual.

The toolkit includes the following components and tools:

1. Patient eligibility, screening and assessment tools
   - Pharmacy-based questionnaire (PBQ)
     - Demographics, smoking status, comorbidities
     - Current COPD treatment
     - Exacerbation history
     - Vaccination status
   - mMRC (Modified Medical Research Council) Dyspnoea Scale
   - Exacerbation Risk Checklist
     - ≥2 moderate exacerbations or ≥1 hospitalisation
   - GOLD A/B/E alignment algorithm (simplified, pharmacy-usable)

2. Risk stratification & clinical decision support
   - COPD Risk Classification Algorithm
     - Symptoms (mMRC)
     - Exacerbation history
     - Current therapy vs GOLD recommendations
   - “Red flags” referral triggers
     - Alarm symptoms
     - Poor disease control
     - Inhaler misuse
     - Safety issues (interactions, contraindications, AEs)

3. Medication management tools
   - Drug-related problems (DRP) checklist
     - Adherence
     - Inhaler technique
     - Safety and tolerability
     - Therapeutic adequacy
   - Inhaler Technique Assessment Tool (binary correct/incorrect)

- Fixed-Dose Triple Therapy (FDTT) appropriateness checklist (when relevant)

4. Counselling and behavioural support
   - Structured counselling checklist covering:
     - Treatment goals
     - Expected benefits
     - Adherence strategies
     - Exacerbation prevention
   - Smoking cessation brief intervention guide
   - Vaccination promotion checklist

5. Patient education materials
   - COPD patient booklet
     - Disease understanding
     - Self-management
     - Exacerbation recognition
   - Inhaler-specific technique leaflets
   - Lifestyle and physical activity guidance

6. Referral & integrated care tools
   - Standardised physician referral form
     - Reason for referral
     - mMRC score
     - Exacerbation risk
     - Identified issues
   - Feedback loop recommendation (informal but structured)

7. Digital and data collection tools
   - Electronic data capture platform
   - Patient-Reported Outcome Measures (PROMs) collection tools (mMRC, Visual Analogue Scale (VAS) adherence)
   - Optional adherence support services (e.g., refill reminders)

[Section A] Background and objectives

1. What was the main rationale for implementing this toolkit in your country/organisation?

(ANF-affiliated pharmacies)

COPD represents a significant and growing public health burden in Portugal, with high levels of underdiagnosis, suboptimal disease control, and a substantial proportion of exacerbations that are potentially preventable through earlier identification, better adherence, and more effective self-management support. Despite the availability of clear international clinical guidance, notably the GOLD recommendations, there remains a persistent gap between evidence and real-world practice, particularly in routine, community-based care.

At the same time, COPD care is often fragmented across settings, leading to missed opportunities for timely intervention, inadequate follow-up, and an underutilisation of healthcare professionals who are highly accessible and clinically trained, such as community pharmacists. Although pharmacists are well positioned to support medication optimisation, inhaler technique, adherence, smoking cessation, and vaccination, their role in structured COPD management has historically been limited and insufficiently integrated into care pathways.

Community pharmacies constitute one of the most accessible points of primary care, with frequent patient contact and established relationships that enable early detection of problems and continuous monitoring over time. This accessibility, combined with pharmacists' clinical expertise, creates a unique opportunity to operationalise guideline-recommended COPD care in everyday practice, bridging the gap between policy, clinical guidance, and patient behaviour.

The implementation of a structured community pharmacy–led COPD toolkit directly responds to these challenges. It provides a standardised yet adaptable framework to translate GOLD recommendations into actionable, real-world interventions, while supporting national health policy objectives related to chronic disease management, prevention of avoidable complications, and the sustainability of the healthcare system.

By doing so, the toolkit repositions community pharmacy as a frontline node in non-communicable disease management—moving beyond a traditional dispensing role towards an integrated, value-based model of care that delivers measurable benefits for patients, healthcare professionals, and the health system.

2. What were the objectives of introducing this toolkit in community pharmacy practice?

Clinical
- To improve symptom control and reduce exacerbations
- To optimise inhaler technique and adherence
- To detect safety and effectiveness issues early

System
- To improve guideline concordance
- To reduce avoidable hospitalisations
- To strengthen integrated primary care

Professional
- To expand pharmacists' clinical role
- To standardise quality of care across pharmacies

[Section B] Implementation and workflow

3. How was the toolkit introduced and integrated into pharmacy workflows?

- Implemented as a structured clinical service, not an ad-hoc activity
- Uses existing dispensing moments to trigger identification of people with a self-reported diagnosis of COPD
- Delivered in the Personalised Assistance Office during routine visits
- Two defined encounters:
  - Baseline visit (T0): assessment + intervention
  - Follow-up visit (T1, 3 months): reassessment + reinforcement
- Documentation integrated into daily workflow via digital forms

4. What were the main steps or workflow stages in practice? *(e.g., patient assessment, counselling, referrals, documentation, follow-up)*

- Patient identification
  - At COPD medication dispensing or proactive identification of COPD patients
- Eligibility confirmation & consent
  - Apply inclusion/exclusion criteria
  - Obtain informed consent
- Baseline assessment (T0)
  - Clinical data, symptoms, PBQ, mMRC, exacerbations, treatment
  - Medication review and DRP identification
  - PROMs: knowledge, self-care, adherence
- Risk stratification
  - GOLD alignment, red flags
- Pharmacist intervention
  - Adherence counselling
  - Education on disease, inhaler technique, warning signs, self-care
  - Lifestyle and vaccination promotion
  - Resolution or mitigation of DRPs
- Referral (if indicated)
  - Based on predefined criteria

- Documentation
  - Electronic data entry
  - Local record retention
- Follow-up visit (T1)
  - Reassessment of all baseline measures
  - Evaluation of DRP resolution
  - Reinforcement of counselling
  - Additional referral if needed

5. Which stakeholders were involved in the implementation? *(e.g., pharmacy teams, other primary care providers, professional societies, policymakers)*

- Community pharmacists and pharmacy technicians
- National Association of Pharmacies (ANF)
- Patients and caregivers
- Industry partners (non-promotional, educational role)

6. What training, education, or support was provided to pharmacists or pharmacy teams?

Mandatory pharmacist training sessions: synchronous, to take place before the programme goes live, and made available on the pharmacies' intranet to allow for review of the topics covered and training of new team members.

- Clinical webinars
  - COPD education (GOLD-aligned)
- Intervention training webinars
  - Use of assessment tools and algorithms
  - Inhaler technique mastery
  - DRP identification and referral criteria
  - Communication and counselling skills
  - Pharmacovigilance and safety reporting
  - Ongoing support, monitoring and feedback
  - Data collection and ethical requirements
- Disease guide and programme manual
- Ongoing support

[Section C] Outcomes and impact

7. What measurable impacts or outcomes were observed? *(e.g., percentage of patient needs addressed, improved adherence, dose appropriateness, completed referrals)*

- Proportion of patients with:
  - Correct inhaler technique
  - Improved adherence scores
  - Resolved DRPs
- Change in:
  - mMRC score
  - Exacerbation frequency
- Proportion of patients:
  - Appropriately referred
  - Aligned with GOLD recommendations
- Vaccination and smoking cessation promotion rates

8. Were there any qualitative impacts observed? *(e.g., patient satisfaction, pharmacist engagement, workflow improvements)*

At this stage, we do not have data that would allow us to assess qualitative impacts; however, it is expected that patient self-care confidence and disease awareness will improve, as well as a higher satisfaction with pharmacy services.

From the professionals' point of view, it is foreseeable that stronger pharmacist engagement will result from more structured and rewarding pharmacy workflows, along with improved interprofessional collaboration.

9. Was any evaluation or monitoring conducted to assess effectiveness?
If yes, please provide a short summary of findings or reference tools or indicators, how data was collected.

The Medication Management and Patient Education Programme includes an assessment study to evaluate the impact of the intervention. An initial visit is followed by a second visit, during which the same parameters are reassessed and compared with those obtained at baseline. The rigour and sustainability of this assessment over time are ensured by the following:

- Routine collection of anonymised primary data via electronic forms
- Before-and-after comparison (T0 vs T1)
- Process indicators:
  - Intervention delivery rates
  - Follow-up completion
- Outcome indicators:
  - Clinical, behavioural and safety outcomes
- Qualitative feedback from pharmacists and patients
- Centralised analysis by an independent evaluation body
- Use of descriptive and paired statistical methods
- Continuous data quality monitoring and audits

Data from the first pool of patients enrolled will be analysed and the results published, contributing to the body of evidence that supports the implementation of NCD management programmes in community pharmacies.

Preliminary results were presented at 2025 ISPOR Congress (CO186 Preliminary Real-World Results of a Community Pharmacy-Based Intervention in COPD: Evidence From the Chronic Diseases From A to Z Program - https://www.valueinhealthjournal.com/article/S1098-3015(25)02845-1/abstract)

[Section D] Enablers and challenges

10. What key factors or conditions facilitated the implementation?

- National coordination (ANF)
- Standardised tools and protocols
- Mandatory training and clear workflows
- Digital data infrastructure
- Alignment with existing dispensing activities
- Willingness to affirm the value of clinical services provided by the pharmacy
- Involvement of an industry partner (Astra Zeneca) who contributed to supporting the effort involved in providing the service

11. What challenges or barriers were encountered? (*e.g., policy, regulatory, operational, patient-related)*

- Time constraints in busy pharmacies
- Remuneration or incentives
- Variability in patient engagement and literacy
- Dependence on self-reported data – inexistent formal access to patients' diagnosis and clinical data
- Weak feedback loops from physicians
- Fragmented electronic information systems

[Section E] Lessons learned and recommendations

12. What advice, tips, or reflections would you share with other member organisations considering implementing pharmacy-led NCD toolkits?

Start with a *service*, not a "project"
Advice

- Design the toolkit to fit routine pharmacy workflows from day one
- Avoid overly complex assessments that feel "research-heavy"
- Make it clear to pharmacists: *this is part of professional practice, not extra paperwork*

Lesson learned
Projects framed as temporary studies or pilots struggle with uptake and sustainability once external coordination ends.

Simplicity beats completeness
Advice

- Prioritise high-impact, low-burden interventions:
  - Adherence
  - Red flag symptoms
  - Medication safety
- Keep questionnaires short and structured
- If a tool takes more than ~20–30 minutes per visit, adoption drops sharply

Lesson learned
Pharmacists will selectively skip components if the toolkit is too long; it is better to design lean tools upfront.

Build around existing dispensing moments
Advice

- Anchor patient identification to:
  - Chronic medication dispensing
  - Regular pharmacy visits
- Avoid creating separate "screening days" unless funded and staffed

Lesson learned
Toolkits that depend on proactive patient recruitment underperform compared to those embedded in everyday dispensing.

Standardisation protects quality and confidence
Advice

- Provide:
  - Clear inclusion/exclusion criteria
  - Explicit referral thresholds ("when in doubt, refer")
  - Standard counselling scripts

Lesson learned
Standardisation reduces fear of "overstepping" clinical boundaries and improves interprofessional acceptance.

Training must be practical, not academic
Advice

- Focus training on operationalisation, not only on clinical knowledge
- Share strategies on how to document quickly and defensibly

Lesson learned
Pharmacists value training that makes their next patient interaction easier the next day.

Referral pathways must be explicit and respected
Advice
- Define what triggers a referral
- Position the pharmacist as an early warning system

Lesson learned
Toolkits with vague referral rules create anxiety and weaken trust with physicians.

Data collection should serve practice, not just evaluation
Advice
- Ensure collected data feeds back into patient care
- Keep local records accessible for follow-up visits

Lesson learned
When pharmacists see their own impact reflected in data, motivation increases significantly.

Remuneration is important—but not the first lever
Advice
- Initially emphasise:
  - Professional recognition
  - Clinical role expansion
  - Patient impact
- Use early results to support negotiations for remuneration later

Communicate the "why" relentlessly
Advice
- Repeatedly reinforce:
  - Why this condition matters
  - Why pharmacists are uniquely positioned
  - Why this toolkit is different from previous initiatives
- Share patient stories and pharmacist testimonials

Lesson learned
People implement what they emotionally connect to, not what they are merely instructed to do.

Evaluation should be supportive
Advice
- Frame evaluation as learning, not inspection
- Use aggregated feedback rather than ranking pharmacies
- Highlight improvement over time, not absolute performance

Lesson learned
Supportive evaluation sustains long-term engagement far better than benchmarking alone.

Think policy from the start—even in pilots
Advice
- Align toolkit language with:
  - National NCD strategies
  - Primary care priorities
  - Value-based care narratives
- Design outputs that policymakers can easily understand

Lesson learned
Successful pilots are those already speaking the language of health systems.

Final reflection
The most successful pharmacy-led NCD toolkits are not defined by the tools themselves, but by how well they:

- Respect pharmacy reality
- Empower pharmacists clinically
- Complement medical care
- Generate visible value for patients and health systems.

13. Are there any future plans to expand or scale up the toolkit?

After the proof of concept, we plan to make the documents available to all ANF pharmacies, which account for more than 95% of all pharmacies in Portugal.

6.2.2 Case study 2

Country:	Portugal
Member Organisation	National Association of Pharmacies (ANF)
Author(s):	Joana Pinto
Toolkit implemented:	Cardiovascular-renal-metabolic (CVRM) Community Pharmacy Toolkit

Description of the toolkit used

(Please briefly describe the components and tools included — e.g., screening forms, counselling checklists, risk assessment algorithms, referral pathways, patient education leaflets, or digital tools.)

The CVRM Community Pharmacy Toolkit is a standardised, pharmacist-led package to support the identification, medication management, patient education, referral, and follow-up of patients with heart failure (HF) and/or chronic kidney disease (CKD), particularly those treated with SGLT-2 inhibitors.

Operationalises the Medication Management and Patient Education Programme, which includes an evaluation study that allows for the replication of this service in line with value-based healthcare and integrated primary care.
A Pharmacy Team Training Programme was implemented, comprising clinical and intervention webinars, as well as a disease guide and programme manual.

The toolkit includes the following components and tools:

1. Patient identification and screening tools
    - Patient eligibility checklist (HF/CKD diagnosis, SGLT-2i use, exclusion criteria)
    - Informed consent form (ICF)
2. Structured assessment instruments
    - Pharmacy-based questionnaire (PBQ):
      demographics; comorbidities; symptoms; BP; BMI; smoking status; vaccination status; hospitalisations
    - Medication review template (SGLT-2i regimen + concomitant therapy)
    - Drug-related problems (DRP) checklist (interactions, adherence, adverse events)
    - Validated Patient-Reported Outcome Measures (PROMs):
        - HF knowledge: Chronic Heart Failure Knowledge Questionnaire (KQCHF)
        - CKD knowledge: adapted Kidney Disease Knowledge Survey (KiKS)
        - HF self-care: European Heart Failure Self-Care Behaviour Scale
        - CKD self-care: adapted Kidney Disease Behaviour Inventory
        - Adherence: Visual Analogue Scale (VAS)
3. Counselling and education tools
    - Disease-specific counselling checklists (HF/CKD)
    - Lifestyle and self-care guidance scripts
    - Vaccination and smoking cessation prompts
    - Educational brochures (e.g., iSGLT-2 and disease leaflets)
4. Referral pathways
    - Standardised referral criteria to physicians:
        - Alarm/worsening symptoms

    - Hospitalisation or decompensation
    - Severe DRPs, contraindications, or adverse events
  - Referral documentation template
5. Digital and data collection tools
  - Electronic data entry (Microsoft Forms)
  - Local pharmacy record-keeping for follow-up continuity

[Section A] Background and objectives

1. What was the main rationale for implementing this toolkit in your country/organisation?

(ANF-affiliated pharmacies)

HF and CKD are highly prevalent in Portugal, with substantial unawareness and late management. These conditions frequently co-exist and can worsen each other due to complex interactions. Patients may experience similar symptoms such as shortness of breath and fatigue, complicating diagnosis and treatment. Prevention strategies like smoking cessation, vaccinations, and patient education are critical in improving outcomes for patients with these overlapping conditions.

A unified toolkit avoids siloed disease management and supports integrated CVRM policy objectives (early detection, prevention of complications, continuity of care).

Effective therapeutic management requires a multidisciplinary approach, including careful integration of pharmacologic and non-pharmacologic strategies, and attention to potential drug interactions; therefore, pharmacists inherently play a critical role. Moreover, community pharmacists emerge as among the most accessible healthcare professionals for delivering care to diverse populations, enabling decentralised chronic care.

This toolkit directly builds on a real-world, multicentre Portuguese study demonstrating feasibility and measurable impact.

Alignment with national priorities: Supports value-based care, prevention of hospitalisations, and primary care reinforcement.

2. What were the objectives of introducing this toolkit in community pharmacy practice?

- Increase pharmacists' awareness concerning CVRM conditions
- Identify people at risk of CKD or HF
- Promote knowledge of people at risk of CKD and HF, and raise awareness of the importance of early diagnosis of these diseases
- Possibility of referring people at risk to a medical doctor
- Increase patient knowledge of HF and CKD
- Strengthen patient self-care behaviours
- Improve adherence to SGLT-2 inhibitors and concomitant CVRM therapies
- Identify, resolve, and prevent drug-related problems
- Embed pharmacists as active members of integrated CVRM care pathways

[Section B] Implementation and workflow

3. How was the toolkit introduced and integrated into pharmacy workflows?

- Implemented as a structured clinical service, not an ad-hoc activity
- Uses existing dispensing moments to trigger identification of a) people at risk, and b) people treated with SGLT-2 inhibitors with confirmed diagnosis of CKD or HF
- Delivered in the Personalized Assistance Office during routine visits
- Two defined encounters:
  - Baseline visit (T0): assessment + intervention
  - Follow-up visit (T1, 3 months): reassessment + reinforcement

- Documentation integrated into daily workflow via digital forms

4. What were the main steps or workflow stages in practice? *(e.g., patient assessment, counselling, referrals, documentation, follow-up)*

- Patient identification
  - At antidiabetic or antihypertensive medication dispensing or proactive identification of patients with type 2 diabetes or hypertension (CKD/HF major risk factors)
  - At SGLT-2i dispensing or proactive identification of CKD or HF patients under SGLT-2i treatment
- Eligibility confirmation & consent
  - Apply inclusion/exclusion criteria
  - Obtain informed consent
- Baseline assessment (T0)
  - Clinical data, symptoms, BP, BMI
  - Medication review and drug-related problem (DRP) identification
  - PROMs: knowledge, self-care, adherence
- Pharmacist intervention
  - Adherence counselling
  - Education on disease, warning signs, self-care
  - Lifestyle and vaccination promotion
  - Resolution or mitigation of DRPs
- Referral (if indicated)
  - Based on predefined criteria
- Documentation
  - Electronic data entry
  - Local record retention
- Follow-up visit (T1)
  - Reassessment of all baseline measures
  - Evaluation of DRP resolution
  - Reinforcement of counselling
  - Additional referral if needed

5. Which stakeholders were involved in the implementation? *(e.g., pharmacy teams, other primary care providers, professional societies, policymakers)*

- Community pharmacists and pharmacy technicians
- National Association of Pharmacies (ANF)
- Patients and caregivers
- Industry partners (non-promotional, educational role)

6. What training, education, or support was provided to pharmacists or pharmacy teams?

Mandatory pharmacist training sessions: synchronous, to take place before the programme goes live, and made available on the pharmacies' intranet to allow for review of the topics covered and training of new team members.

- Clinical webinars
  - HF and CKD clinical fundamentals
  - SGLT-2i therapy and safety
- Intervention training webinars
  - Use of PROMs and pharmacy-based questionnaire
  - DRP identification and referral criteria
  - Data collection and ethical requirements
  - Pharmacovigilance and GDPR training
- Disease guide and programme manual

- Ongoing support

[Section C] Outcomes and impact

7. What measurable impacts or outcomes were observed? *(e.g., percentage of patient needs addressed, improved adherence, dose appropriateness, completed referrals)*

- Proportion of DRPs resolved between visits
- Change in adherence scores (VAS)
- Improvement in disease knowledge scores (HF/CKD)
- Improvement in self-care behaviour indicators

8. Were there any qualitative impacts observed? *(e.g., patient satisfaction, pharmacist engagement, workflow improvements)*

At this stage, we do not have data that allow us to assess qualitative impacts; however, it is expected that patient self-care confidence and disease awareness will improve, as well as a higher satisfaction with pharmacy services.

From the professionals' point of view, it is foreseeable that stronger pharmacist engagement will result from more structured and rewarding pharmacy workflows, along with improved interprofessional collaboration.

9. Was any evaluation or monitoring conducted to assess effectiveness?
If yes, please provide a short summary of findings or reference tools or indicators, how data was collected.

The Medication Management and Patient Education Programme includes an assessment study to evaluate the impact of the intervention. An initial visit is followed by a second visit, during which the same parameters are reassessed and compared with those obtained at baseline. The rigour and sustainability of this assessment over time are ensured by the following:

- Routine collection of anonymised primary data via electronic forms
- Before-and-after comparison (T0 vs T1)
- Process indicators:
  - Intervention delivery rates
  - Follow-up completion
- Outcome indicators:
  - Clinical, behavioural and safety outcomes
- Qualitative feedback from pharmacists and patients
- Use of descriptive and paired statistical methods
- Continuous data quality monitoring and audits

Data from the first pool of patients enrolled will be analysed and the results published, contributing to the body of evidence that supports the implementation of NCD management programmes in community pharmacies.

Preliminary data collected characterising individuals at risk for HF and/or CKD who participated in the pharmacy-led awareness and screening campaign, also allowed the identification of key gaps in disease monitoring and management. These results were presented at the 2025 ISPOR Congress (CO208: Real-World Outcomes From a Pharmacy-Based Awareness and Screening Campaign for HF and CKD: Insights From the "Chronic Diseases From A to Z" Program — Teixeira-Rodrigues, António et al.) Value in Health, Volume 28, Issue 12, S84 https://www.valueinhealthjournal.com/article/S1098-3015(25)02866-9/abstract)

[Section D] Enablers and challenges

10. What key factors or conditions facilitated the implementation?

- National coordination (ANF)
- Standardised tools and protocols
- Mandatory training and clear workflows
- Digital data infrastructure
- Alignment with existing dispensing activities
- Willingness to affirm the value of clinical services provided by the pharmacy
- Involvement of an industry partner (Astra Zeneca) who contributed to supporting the effort involved in providing the service

11. What challenges or barriers were encountered? *(e.g., policy, regulatory, operational, patient-related)*

- Time constraints in busy pharmacies
- Remuneration or incentives
- Variability in patient engagement and literacy
- Dependence on self-reported data—inexistent formal access to patients' diagnosis and clinical data
- Weak feedback loops from physicians
- Fragmented electronic information systems

[Section E] Lessons learned and recommendations

12. What advice, tips, or reflections would you share with other member organisations considering implementing pharmacy-led NCD toolkits?

Same as the response to Question 12 in the Portuguese Case Study 1.

13. Are there any future plans to expand or scale up the toolkit?

After the proof of concept, we plan to make the documents available to all ANF pharmacies, which account for more than 95% of all pharmacies in Portugal.

7 Recommendations and actions to enhance toolkit integration and sustainability in pharmacy practice and policy

Although pharmacy-led toolkits have demonstrated their potential to strengthen the prevention, management and control of non-communicable diseases, their sustainable integration into routine community pharmacy practice varies considerably across health systems. Evidence from participating countries shows that the successful implementation of toolkits depends not only on their technical quality, but also on the policy, regulatory, financial, educational and digital environments in which they are deployed. Participants highlighted the importance of adapting FIP pharmacist-led toolkits to national contexts while maintaining alignment with international best practice, using global evidence to inform local implementation.

In Portugal, for example, the adoption of pharmacist-led toolkits has supported services such as individualised medication dispensing, medication review, cardiovascular and diabetes risk assessment, adherence support, and chronic therapy renewal, strengthening collaboration between community pharmacy and the National Health Service. This approach exemplifies how national adaptation of pharmacy-led toolkits can leverage global evidence while tailoring services to local health system structures and policies.

"A strong recommendation is to use the FIP pharmacist-led toolkits as a driver, like the Hypertension Toolkit, as a blueprint—and adapt them to each country's language, clinical pathways, and national policies. This allows countries to maintain international best practice while tailoring to local contexts."

Similarly, FIP can support nations by providing guidance, facilitating knowledge exchange, and disseminating evidence from settings where pharmacist-led services have successfully been integrated into long-term conditions management.

This chapter translates the drivers identified throughout this report into practical recommendations for governments, healthcare systems and professional organisations. It outlines priority actions to support the integration, scaling and sustainability of pharmacy-led toolkits, with a focus on strengthening pharmacists' clinical roles, aligning education and workforce capacity, and embedding evaluation mechanisms that demonstrate value to patients and health systems.

7.1 Suggested actions for governments, healthcare systems and professional organisations

Health ministries in governments and leaders of health systems play a central role in optimising the conditions under which pharmacy-led toolkits transition from pilot initiatives to routine, system-embedded services. Across countries, participants consistently emphasised that legal authorisation alone is insufficient; meaningful implementation requires policy frameworks to be aligned, for financing mechanisms to be sustained and system-level leadership to be consistent. Clear regulatory frameworks are also required to formally recognise pharmacists as clinical care providers within chronic disease pathways, moving beyond traditional dispensing-focused models.

Policy actions should prioritise:

- Establishing or updating legislation and regulations that formally authorise pharmacists to deliver defined clinical services related to NCD prevention, monitoring and management.
- Aligning pharmacy services with national NCD strategies, primary healthcare frameworks and clinical guidelines to ensure coherence of care across settings.
- Securing reimbursement mechanisms that recognise pharmacists' time, expertise and accountability, including fees-for-services, bundled payments or value-based models linked to quality and outcome measures.

- Ensuring that commissioning and contracting processes enable pharmacies to participate as recognised providers within health system funding arrangements.

Professional association and regulatory agencies should support these efforts by providing national regulations and guidance on service standards, defining minimum clinical and operational requirements for toolkit implementation, and advocating for policy alignment across sectors, while promoting professional practice that reflects the clinical value of pharmacists.

FIP can provide global guidance and share evidence and examples from other countries. We can support the development of national standards based on international best practices. Coordinated leadership at national and regional levels is essential to avoid fragmented approaches that limit scalability and equity of access.

7.2 Strategies to strengthen pharmacists' roles and integration of toolkits into care pathways

Strengthening both pharmacists' clinical roles and interventions is critical to the successful adoption of pharmacy-led toolkits. Across settings, acceptance and uptake are influenced not only by formal scope of practice, but also by how pharmacists' contributions are understood and valued by other health professionals, policymakers and patients. Embedding the patient perspective into toolkit design and evaluation ensures that services are relevant, acceptable and improve patient experience of care.

Key strategies include:

- Reframing pharmacy-led services using clinical, people-centred terminology that clearly communicates the pharmacists' roles in disease prevention, management and control of chronic diseases care, rather than retail or transactional functions.
- Embedding toolkits within recognised care pathways, ensuring alignment with existing referral processes, shared-care protocols and clinical decision frameworks.
- Promoting structured collaboration between pharmacists, physicians, nurses and other health professionals and specialist societies through co-developed protocols, shared documentation and agreed escalation pathways.
- Supporting professional leadership within pharmacy by enabling pharmacists to take ownership of defined clinical activities, such as medication optimisation, adherence support, risk factor monitoring, and deprescribing initiatives.

Professional associations play a pivotal role in enabling shared clinical ownership through structured, multistakeholder partnerships. By convening pharmacy, medical and scientific societies, public health authorities and other stakeholders, they can support the co-development of shared clinical protocols, build consensus around pharmacists' roles, and facilitate the integration of pharmacist-led toolkits into established care pathways. Disseminating good practice models further helps demonstrate how these toolkits complement and strengthen existing services, rather than duplicating them.

7.3 Recommendations for education, workforce development and evidence generation

Sustainable implementation of pharmacy-led toolkits requires investment in education, workforce capacity and continuous evaluation. Pharmacists must be equipped not only with clinical knowledge, but also with the skills needed to apply toolkits consistently, engage patients effectively and contribute to interdisciplinary care.

Priority actions include:

- Integrating toolkit-based care, chronic disease management and interprofessional collaboration into undergraduate curricula and continuing professional development programmes.

- Ensuring access to practical training and mentorship that supports confidence, clinical decision-making and consistent service delivery across diverse practice settings.
- Addressing workforce constraints by aligning service expectations with staffing models and by leveraging digital tools to streamline workflows where appropriate.
- Systematically generating and using evidence to show the positive impact of pharmacist-led services on patient outcomes and health system efficiency, and communicating this evidence in ways that support policymaker and payer decisions on investment and long-term commissioning.
- Embedding evaluation frameworks from the outset of service design, capturing not only clinical outcomes but also system-level indicators such as service utilisation, hospital admissions, patient experience, and cost-effectiveness.

At an international level, coordinated evidence generation and shared learning across countries can accelerate policy uptake, particularly in settings where local data remain limited. Adapting global FIP pharmacy-led toolkits while maintaining consistency with international evidence supports both quality assurance and credibility, allowing countries to benchmark performance and outcomes against best practices worldwide.

8 Conclusions

Across diverse countries and health system contexts, discussions highlighted that pharmacy-led toolkits can play a meaningful role in strengthening the prevention, management, and control of non-communicable diseases. However, their impact is maximised only when supported by enabling governance, clearly articulated professional roles, sustainable financing models, and strong interprofessional collaboration. Pharmacy-led toolkits are most effective when embedded within recognised care pathways and aligned with broader primary care and public health strategies.

Participants consistently emphasised that moving from isolated pilot studies to scalable, system-integrated service implementation requires national leadership, aligned clinical protocols, and systematic evidence generation. Where pharmacists' roles were clearly recognised and integrated within long-term conditions management, pharmacy-led toolkits were more readily adopted and demonstrated measurable benefits for patients and health systems. Conversely, fragmented regulation, limited reimbursement, insufficient digital interoperability, and persistent professional silos remain significant barriers in many settings, requiring coordinated action from policymakers, professional bodies, educators, and healthcare providers.

Importantly, discussions highlighted that pharmacy-led toolkits provide a practical and credible starting point in contexts where formal policies, clinical guidelines, or reimbursement structures are still evolving. In such settings, toolkits empower pharmacists to drive service development at a practice level, generate local evidence and demonstrate value, thereby creating momentum for policy dialogue and system-level integration. Participants emphasised the role of FIP in supporting this process through global guidance, shared tools, competency frameworks, and open-access educational resources, enabling adaptation to national contexts while maintaining alignment with international best practice.

Ultimately, pharmacy-led toolkits represent more than implementation tools: they act as catalysts for change for community pharmacy contributing to long-term conditions prevention and management. When supported by enabling policies, education, and robust evaluation frameworks, they offer a powerful opportunity to strengthen pharmacists' clinical roles, enhance continuity of care, and position community pharmacy as an essential partner in delivering people-centred care for non-communicable diseases within sustainable health systems.

References

1. World Health Organization (WHO). Noncommunicable diseases. Updated 25 September 2025 [accessed: 18 November 2025]. Available at https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases.
2. United Nations (UN). Sustainable Development Goals (SDGs). Goal 3: Ensure healthy lives and promote wellbeing for all at all ages [Internet]. 2020. [accessed: 24 October 2025]. Available at: https://www.un.org/sustainabledevelopment/health/.
3. World Health Organization (WHO). Implementation roadmap 2023-2030 for the Global action plan for the prevention and control of NCDs [Internet]. [accessed: 24 October 2025]. Available at: https://www.who.int/teams/noncommunicable-diseases/governance/roadmap
4. United Nations. Political declaration of the fourth high-level meeting of the General Assembly on the prevention and control of noncommunicable diseases and the promotion of mental health and well-being. Equity and integration: transforming lives and livelihoods through leadership and action on noncommunicable diseases and the promotion of mental health and well-being. UN: 2025. [accessed: 10 December 2025]. Available at: https://docs.un.org/en/A/80/L.34
5. International Pharmaceutical Federation (FIP). FIP Statement of Policy: The role of pharmacists in non-communicable diseases. The Hague: FIP, 2025. Available at: https://www.fip.org/file/6356
6. International Pharmaceutical Federation (FIP). Beating non-communicable diseases in the community — The contribution of pharmacists. The Hague: FIP, 2019. Available at: https://www.fip.org/file/4694.
7. Borg J, Wirth F, Azzopardi LM. Development and application of a toolkit for community pharmacist-led review of patients with diabetes. JACCP: Journal of the American College of Clinical Pharmacy. 2025;8(6):445-450. DOI:10.1002/jac5.70022.
8. Callahan LF, Hawk V, Rudd R, et al. Adaptation of the health literacy universal precautions toolkit for rheumatology and cardiology – applications for pharmacy professionals to improve self-management and outcomes in patients with chronic disease. Res Social Adm Pharm. 2013;9(5):597–608. DOI:10.1016/j.sapharm.2013.04.016.
9. Farhana L, Rahayu FP, Sholihah S, et al. Effectiveness of pharmacist-led intervention on medication adherence in chronic diseases: a systematic review of randomized controlled trials. Patient Prefer Adherence. 2025;19:2161–2178. DOI:10.2147/PPA.S530503.
10. Straw A, Mills J, Winters R, et al. Community pharmacies and the empowerment of self-care in the United States. Explor Res Clin Soc Pharm. 2023;5:100266. DOI:10.1016/j.rcsop.2023.100266.

Appendix

This table provides a comparative overview of national policy contexts shaping pharmacists' scope of practice in NCD management, alongside key health system enablers, barriers, and illustrative examples of pharmacy-led service integration and toolkit implementation across participating countries. It complements the discussion of system-level drivers presented in Chapter 5 and highlights the diversity of contexts in which pharmacy-led NCD services are being developed and implemented.

Country	Policy context and legislation	Enablers for pharmacy-led NCD services	Key barriers to implementing pharmacy-led NCD services	Examples of pharmacy-led NCD services and integration into care pathways and toolkit implementation in practice
Bosnia and Herzegovina	• Certain clinical services are legally permitted in community pharmacies; however, the absence of defined remuneration mechanisms and clearly articulated pharmacist roles within national guidelines limits formal recognition and service expansion.	• Existing provision of basic monitoring services (e.g., glucose, cholesterol and triglyceride testing) in some pharmacies. • High professional motivation among pharmacists. • Active involvement of the professional body of the Chamber in supporting and coordinating these activities.	• Lack of recognition. • Absence of structured remuneration. • Limited interprofessional collaboration and system recognition. • Absence of national guidelines and the lack of formal inclusion of community pharmacists in prevention and monitoring programmes for NCD.	• The Chamber of Pharmacists has begun translating and adapting the educational guide of the FIP Hypertension Pharmacy Toolkit and plans to translate additional toolkits to establish a structured national programme. • Pharmacists document blood pressure and other monitoring data using standardised charts, with the aim of generating consistent national evidence to inform future policy. • Early experience indicates that pharmacist-led services can be integrated into long-term conditions management when clear tools, documentation practices and collaboration with physicians are in place.
Brazil	• Federal Council of Pharmacy (CFF) Resolutions 585/2013 and 586/2013 formally expand pharmacists' clinical responsibilities (including pharmaceutical care, patient assessment and monitoring, non-pharmacological interventions,	• Strong regulatory foundation for clinical pharmacy practice. • National clinical guidelines aligned with NCD priorities (more information here and here). • Recognition of pharmacists' integration within	• Limited remuneration for clinical pharmacy services. • Variable integration with primary care information systems and lack of data interoperability.	• Pharmacist-led screening, monitoring and follow-up for hypertension and diabetes, delivered through structured toolkits aligned with national and clinical guidelines.

Country	Policy context and legislation	Enablers for pharmacy-led NCD services	Key barriers to implementing pharmacy-led NCD services	Examples of pharmacy-led NCD services and integration into care pathways and toolkit implementation in practice
	prescribing of OTC medicines and other health products, ordering of laboratory tests, and referral to other health professionals or services, in line with national protocols and prescribing guidelines). See CFF clinical practice guidelines. • National programmes integrating private pharmacies into public access to medicines for hypertension and diabetes (e.g., Farmácia Popular, Saúde Não Tem Preço), focused solely on medicine provision rather than clinical services. • National clinical protocols and hypertension guidelines support pharmacist involvement (more information here and here).	multiprofessional primary health care teams. • Growing use of telepharmacy.	• Need for clearer national frameworks defining collaborative prescribing roles in chronic conditions.	• Evidence from national pilot studies shows improved medication adherence and reductions in average blood pressure among patients followed by pharmacists. • National guidance defining pharmacists' clinical activities within the Brazilian Unified Health System (SUS) supports the integration of these services into long-term conditions management and expands access to structured monitoring and follow-up in community pharmacy settings.
Canada	• Provincial governments and legislation recognise the value of investing in pharmacy services and establish a broad scope of practice for pharmacists in many jurisdictions, including prescribing, ordering and interpretation of laboratory tests, injections, and chronic disease management, alongside remunerated medication review programmes, with significant variation across provinces. • Pharmacists' scope of practice in Canada is defined at the provincial and territorial level, resulting in heterogeneous implementation across the country.	• The Canadian Pharmacists Association (CPhA) has long advocated for an expanded role for pharmacists, and over the past decade pharmacists' scope of practice has expanded across the country. • Strong evidence base supported by national clinical guidelines, including pharmacist-adapted guideline publications that facilitate translation into practice. • Harmonisation of pharmacy scope of practice; a full scope of practice includes prescribing, ordering and viewing of laboratory tests, injections, and chronic disease management.	• Lack of standardisation of pharmacist care across provinces and pharmacies. • Limited uptake of full scope of practice due to confidence gaps and staffing constraints. • Medication review programmes often poorly designed and insufficiently linked to guideline-based clinical interventions. • Remuneration models for pharmacist-led clinical services remain suboptimal. • Derogatory terminology and imagery that reinforce retail-oriented or subservient perceptions of pharmacy	• Pharmacists deliver full-scope chronic disease management supported by electronic "Care Pathway" toolkits derived directly from national clinical guidelines, enabling structured case-finding, assessment, shared decision-making and follow-up. Example: Implementation of Pharmacist Case-Finding and Care Pathway Intervention for Vascular Prevention (PRxOACT). • Multiple randomised trials demonstrate improvements in clinical outcomes and economic benefits across cardiovascular and metabolic conditions. Areas covered include hypertension (and strong economic benefits in

Country	Policy context and legislation	Enablers for pharmacy-led NCD services	Key barriers to implementing pharmacy-led NCD services	Examples of pharmacy-led NCD services and integration into care pathways and toolkit implementation in practice
			practice (more information here and here).	Canada and the USA), dyslipidaemia, cardiovascular risk reduction, atrial fibrillation and urinary tract infections (with positive economic benefits).
China	• China has ~710,000 community pharmacists, but community pharmacy is not formally recognised academically. • Community pharmacists are licensed through hospital pharmacy or national exams and maintain annual continuing professional education. • Currently, there are no specific national policies or regulations defining pharmacists' roles in long-term conditions management, though they follow general healthcare reforms and policy updates.	• Growing recognition of pharmacists as key partners in NCD management alongside clinical doctors. • Pharmacists can join NCDs family medical services in community clinics and primary care hospitals. • Community pharmacists can connect with hospital pharmacists for follow-up care after higher-level hospital treatment.	• Lack of formal regulations and standardisation for community pharmacy services. • Most pharmacists still primarily engaged in dispensing, not structured clinical care. • Need to strengthen integration with primary care teams and hospital pharmacists.	• Very limited clinical service delivery. • The Chronic Obstructive Pulmonary Disease (COPD) Pharmacy Toolkit has been translated into Chinese to support structured pharmacist-led care and patient engagement.
Germany	• Since June 2022, German community pharmacies are authorised and reimbursed under the Law on Strengthening Local Community Pharmacies (VOASG) to provide five structured clinical services: hypertension management, inhalation technique support, polymedication review, post-transplant immunosuppressant review, and oral anticancer drug review. • E-prescriptions and electronic medication lists support continuous medication management.	• Structured pharmacist training and national medication-safety programmes. • Early pilot evidence (ARMIN, ATHINA) demonstrates effectiveness and public uptake. • Collaboration with medical and specialty societies.	• Fragmented regional implementation and variable uptake across pharmacies. • Workload constraints, particularly in smaller pharmacies. • Need for consistent reimbursement, interoperable digital systems, and shared-care frameworks with physicians.	• Pharmacist-led services delivered via structured toolkits, including blood-pressure measurement, medication reviews, and inhaler training. • Toolkits provide stepwise assessments and actionable recommendations for patients. • The blood-pressure service demonstrates integration into broader care pathways, supporting monitoring, early detection, and structured follow-up. • Real-world pilots inform policy and demonstrate how

Country	Policy context and legislation	Enablers for pharmacy-led NCD services	Key barriers to implementing pharmacy-led NCD services	Examples of pharmacy-led NCD services and integration into care pathways and toolkit implementation in practice
	• Federal medication-safety initiatives and regional pilots (e.g., ARMIN) further strengthen pharmacist integration into chronic care pathways.			standardised pharmacist-led tools can bridge primary care gaps.
Japan	• Pharmacists operate within Japan's universal health insurance system, ensuring broad access to medicines and services. The Pharmaceutical and Medical Devices Act was amended in 2019, requiring pharmacists to provide continuous follow-up care, including monitoring of medication use and feedback to prescribers as necessary.	• Health system awareness of NCD priorities within an ageing population and the integration of pharmacists into patient follow-up requirements. • The role of pharmacies is expanding beyond dispensing medication to include disease prevention and health promotion.	• Strong physician dominance and traditional models of care limit the expansion of pharmacists' clinical roles. • Pharmacist roles and responsibilities beyond dispensing remain unclear and inconsistently implemented across community settings. • Collaboration with other health professionals is still developing, with limited formal structures for shared care pathways.	• Early-stage work on strengthening pharmacist involvement. • Toolkits, such as the "Guide to medication management guidance for heart failure by pharmacists" created by the Japanese Pharmacists Association and the Japanese Heart Failure Society, support structured clinical management in specific disease areas.
Lebanon	• No formal national policy currently enables pharmacist-led NCD management services. • National health strategies exist but their implementation in pharmacy practice is limited.	• High professional motivation among pharmacists. • Strong academic, research, and training interest supporting potential service expansion.	• Financial constraints and staff shortages. • Limited digital infrastructure and absence of integrated patient records. • Limited interprofessional collaboration.	• Pharmacists demonstrate interest and capacity to deliver NCD management services. • Implementation of structured toolkits is limited, primarily due to system-level barriers such as funding, workforce, and digital infrastructure.
Malaysia	• Preventive and community-based care is prioritised in national strategies, but community pharmacy roles remain weakly defined in legislation, creating policy "grey areas". • Community pharmacies are not classified as healthcare providers	• Support from specialist societies (e.g., nephrology). • Chain pharmacies facilitate faster adoption and scaling of new services.	• Opposition from some general practitioners. • Weak legislative recognition of community pharmacy clinical roles. • Inconsistent professional acceptance.	• Strategic reframing of NCD management through medication therapy adherence clinics. • Proactive use of toolkits for CKD and other NCDs within preventive care frameworks (see Chapter 6).

Country	Policy context and legislation	Enablers for pharmacy-led NCD services	Key barriers to implementing pharmacy-led NCD services	Examples of pharmacy-led NCD services and integration into care pathways and toolkit implementation in practice
	under national economic activity codes (aligned with ISIC), which constrains formal recognition, commissioning, and reimbursement of pharmacist-led clinical services.			
Portugal	• National legislation authorising medication reviews, chronic medication renewal and expanded clinical services in community pharmacies. • Legal framework defining pharmacists' professional responsibilities within the health system. • Decree-Law No. 138/2023 established the framework for proximity dispensing of hospital-only medicines, strengthening the connection between the National Health Service (SNS) and community pharmacies, supported with a service fee. • Ordinance No. 263/2023 (17 August) approved the Chronic Disease Medication Renewal Service in community pharmacies for chronic medications used. • Ordinance No. 18/2025 (21 January), establishes an exceptional reimbursement scheme that allows community pharmacies to dispense medical devices such as continuous subcutaneous insulin infusion (CSII) pumps and continuous glucose monitoring (CGM) systems.	• Integrated national e-prescribing infrastructure. • Community pharmacists have access to each patient's prescription and dispensing history for the previous 12 months, improving continuity of care. • Software platforms supporting medication review.	• Limited bidirectional communication between pharmacists and prescribers. • Incomplete interoperability and feedback loops within digital systems.	• Structured pharmacist-led services increasingly integrated into long-term conditions management, supported by standardised toolkits for medication review, adherence support and risk assessment. • Practical examples include collaborative deprescribing initiatives (e.g., the C-SENIoR project), using pharmacist intervention flowcharts, patient materials and structured pharmacist–physician communication tools aligned with clinical guidelines. • Additional toolkit-based initiatives support awareness, structured screening and referral for COPD, heart failure and chronic kidney disease in community pharmacies, using standardised algorithms, referral criteria, patient education materials and pharmacist–physician communication tools aligned with national clinical pathways. Further detail is provided in Chapter 6.

Country	Policy context and legislation	Enablers for pharmacy-led NCD services	Key barriers to implementing pharmacy-led NCD services	Examples of pharmacy-led NCD services and integration into care pathways and toolkit implementation in practice
Saudi Arabia	• The Saudi Model of Care supports individuals in managing their chronic conditions by providing integrated healthcare services and facilitating patient transitions between various care facilities, alongside enhancing the level of services in appropriate settings. • Vision 2030 supports transformation of pharmacy practice. • However, regulatory frameworks for community pharmacists is still insufficient.	• Pharmacists are capable of delivering a range of NCD services. • A major enabler would be stronger collaboration between regulators to support and advance pharmacy-led NCDs services.	• Lack of reimbursement. • Leadership roles and accountability are not yet clearly defined across key stakeholders.	• Examples of pharmacists interventions: Impact of community pharmacy-based medication therapy management program on clinical and humanistic outcomes in patients with uncontrolled diabetes and Impact of specialized clinics on medications deprescribing in older adults.

USA	• State and federal policy frameworks enabling coverage of pharmacist-delivered clinical services under the medical benefit.
	• Provider enrolment and credentialling pathways for pharmacists.
	• Use of standard medical billing codes and reimbursement through Medicaid, commercial and value-based payment models.
		• Alignment of pharmacist services with quality measures.
		• Strong engagement between pharmacists, health plans and quality organisations.
		• National recommendations issued by the American Pharmacists Association for Health Plans and Pharmacists to advance coverage of pharmacists' services in the medical benefit.
			• Regulatory variability across states.
			• Administrative and credentialling burden.
			• Inconsistent data exchange between pharmacy and medical systems.
				• Pharmacist-led services include medication reviews, point-of-care testing, chronic diseases management, tobacco cessation and test-and-treat models for high-risk patients. Find more information here.
				• Example of toolkits:
				  ○ Prepped to serve: The community pharmacy's HIV prevention toolkit. This toolkit provides a practical roadmap for building capacity, developing partnerships, strengthening workflows, and creating stigma-free, patient-centred pharmacy environments to deliver HIV prevention services in the community.
				  ○ Chlamydia and gonorrhea test-to-treat toolkit for community pharmacies.

Country	Policy context and legislation	Enablers for pharmacy-led NCD services	Key barriers to implementing pharmacy-led NCD services	Examples of pharmacy-led NCD services and integration into care pathways and toolkit implementation in practice
Wales	• Community pharmacies in Wales operate under the National Health Service (Pharmaceutical Services) (Wales) Regulations 2020, with local Pharmaceutical Needs Assessment (PNA) guiding service provision. • Pharmacies are authorised to provide a broad range of services, including Common Ailments Service, prescribed medication advice, chronic condition advice, medicine usage reviews, healthy living advice, health checks, flu vaccination, sexual health advice, and supervised drug administration. • National framework through Community Pharmacy Wales (CPW) and local Health Boards supports service expansion.	• NHS remuneration and digital systems facilitate implementation and evaluation of pharmacy services. • Small country with a strong professional network simplifies stakeholder engagement and scaling. • Focus on patient-centred care and integration with self-care initiatives, supported by digital platforms.	• Variation in service availability between locations. • Limited standardisation of service protocols across community pharmacies. • Workforce constraints and competing workload priorities can affect service delivery. • Need for stronger integration with primary care pathways and alignment with medical professionals.	• Community pharmacies deliver structured guidance and follow-up for chronic conditions through NHS-funded services. • Toolkits and structured protocols support patient assessment, monitoring, and referral to primary care when needed. • Pilot projects demonstrate effective integration of pharmacists into NCD care pathways, leveraging digital platforms for patient engagement and data tracking. • Community pharmacy hypertension clinics are operational, with a proposed single-site pilot to expand into an integrated cardio-renal-metabolic clinic.

International
Pharmaceutical
Federation

Fédération
Internationale
Pharmaceutique

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