Advancing health literacy through pharmacist-led public health initiatives

Global insights from a survey and interviews

2025

International Pharmaceutical Federation

Colophon

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Recommended citation
International Pharmaceutical Federation (FIP). Advancing health literacy through pharmacist-led public health initiatives – Global insights from a survey and interviews. The Hague: International Pharmaceutical Federation; 2025.

Cover image
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Contents

Executive summary

Pharmacists are uniquely positioned as highly accessible professionals within communities, but often remain underutilised in efforts to advance health inclusivity, equity, and literacy. This project utilised a mixed methods approach. To better understand the factors influencing this across different national and regional contexts, FIP distributed a survey to its individual members and conducted semi-structured interviews with member organisations. These efforts explored how pharmacists worldwide are promoting health literacy through public health campaigns and patient education initiatives.

The survey explored pharmacists' engagement in health literacy initiatives, leadership roles, barriers, and support needs, while the semi-structured interviews explored various organisational perspectives, policy contexts, and national priorities. A total of 149 pharmacists responded to the survey, and 22 member organisations from 21 countries participated in the interviews.

Key findings:

1. Survey findings: Perspectives and experiences of individual pharmacists

- Pharmacists (n=149) from 52 countries responded to the survey, with a median of 24 years' professional practice, reflecting a broad and experienced international sample.
- Participants worked across diverse sectors, most commonly community pharmacy (30.2%) and academia (24.8%), with additional representation from hospitals, regulatory bodies, and government.
- Nearly three-quarters (72%) of respondents had participated in public health initiatives in the past year, with leading areas of activity being:
    1. Medication safety and adherence
    2. Infectious disease and vaccination
    3. Chronic disease management
- Public health campaigns were most often self-initiated, followed by those led by government bodies, national pharmacy associations, and employers.
- Major barriers to participation included time constraints, lack of incentives or recognition, and limited institutional support.
- Pharmacists generally acknowledged the value of public health campaigns for patient outcomes and public trust. They were confident in their ability to contribute to these campaigns, while at the same time acknowledging gaps in their training.
- In terms of digital tool adoption, 28% reported that they used them regularly, 45% occasionally, and 27% not at all. Barriers to digital technology adoption included limited digital literacy among patients, time constraints, and inadequate access to digital infrastructure.
- Five clusters of support and training needs were identified:
    1. Skills and knowledge development (health literacy, chronic disease, digital tools, campaign design)
    2. Tools and resources (multilingual/literacy-sensitive materials, evidence-based content, IT infrastructure)
    3. Recognition and accreditation (certifications, policy inclusion, CPD pathways)
    4. Structural and system support (protected time, staffing, financial resources)
    5. Collaboration and networks (interprofessional training, partnerships, professional communities)
- The findings highlight a strong willingness among pharmacists to contribute to public health but reveal systemic, structural, and resource-related barriers that constrain their impact. Holistic interventions are required to strengthen their role in health literacy and public health improvement globally.

2. Interview findings: National and regional insights from FIP member organisations

- Pharmacists contribute globally to vaccination, health education, antimicrobial resistance stewardship, chronic disease prevention, and patient safety.
- During COVID-19, pharmacists emerged as trusted vaccinators and public health communicators, with strong integration seen in Portugal, Taiwan, South Africa, and Australia.
- Pharmacists are increasingly leading impactful public health initiatives and expanding their roles. In Spain, sentinel pharmacy networks have supported health authorities through epidemiological surveillance, while in South Korea, hospital-to-community transition-of-care models improved medication safety after discharge.
- Restrictive regulations, fragmented health systems, and a lack of sustainable funding constrain pharmacists' public health roles.
- Absence of clear legal frameworks, slow regulatory approvals, and limited remuneration weaken long-term integration and recognition of pharmacists' ability to engage fully in public health initiatives.
- National associations in Malta, Australia, India, and Costa Rica influenced policy through cost-effectiveness evidence, advocacy, and coordination with health ministries.
- Academic–practice collaborations, such as Malta's joint training for pharmacy and medical students and Portugal's university–pharmacy partnerships, strengthened professional integration and expanded community outreach.
- Public trust in pharmacists remains high, enabling effective health education, prevention campaigns, and system-wide credibility.
- Pharmacists use websites, apps, social media, and digital records for patient communication and public health messaging, with varying uptake across regions.
- Barriers to digital health use include cultural norms, poor infrastructure, limited awareness, and digital literacy gaps, though many countries are preparing for AI-driven innovation.
- Pharmacies can act as hubs across communities, leveraging their accessibility for education, early diagnostics, and advocacy for equitable access of medicines.
- Opportunities for pharmacists to advance health literacy include expanding their roles beyond dispensing to serve as public health educators, clinical counsellors, and advocates for healthier communities, including leveraging media platforms to counter misinformation and broaden their reach.
- Countries differ widely in provision: some have structured CPD and accredited programmes, while others rely on fragmented, non-accredited training.
- Academic–practice partnerships and accreditation remain critical for embedding health literacy in the training of pharmacists to strengthen pharmacist competence.

Acknowledgements

FIP acknowledges that this report was supported through unrestricted support from Haleon.

FIP also acknowledges the following for their support in the interview process:

- FIP regional forum members who supported data collection for the interviews: Gladys Lugo, Jocelyn Chaibva, Leonila Ocampo, Praveen Devanandan, and Salah-El-Din Shubair.
- FIP team who supported data collection for the interviews, and transcription: Farah Aqqad, Aysu Selçuk, Anna Domin, Nisa Masyitah, Diala Koudmani, Grace Oluwakemi Adebayo, Nicholas Muparadzi, Kadek Hendra Darmawan, Amira Mustafa, Daniel Osoro, and Kareem Arafat.

The following interview participants and MOs are acknowledged for their contribution in the interviews.

Interview participants	Member organisation	Country
Ahmad Taqi	Kuwait Pharmaceutical Association	Kuwait
Alexandra Imbrea	Association of Pharmacies and Pharmacists in Romania	Romania
Anthony Serracino Inglott	Malta Pharmaceutical Association	Malta
Daniel Quesada Alvarado	College of Pharmacists of Costa Rica	Costa Rica
Dilmini Udugampola	Pharmaceutical Society of Sri Lanka	Sri Lanka
Elena Vega	General Pharmaceutical Council of Spain	Spain
Famola Ngobeni	Pharmaceutical Society of South Africa	South Africa
Hanne Andresen	The Norwegian Pharmacy Association	Norway
Janne Smedberg	The Norwegian Pharmacy Association	Norway
Jayapal Reddy	Indian Association of Colleges of Pharmacy	India
Jonans Tusiimire	Pharmaceutical Society of Uganda	Uganda
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Lidia Solomon (written inputs)	Association of Pharmacies and Pharmacists in Romania	Romania
Lígia Garcia	National Association of Pharmacies	Portugal
Peter Guthrey	Pharmaceutical Society of Australia	Australia
Refiloe Mogale	Pharmaceutical Society of South Africa	South Africa
Roop Gupta	Indian Pharmaceutical Association	India
Sigurbjörg Sæunn G	Pharmaceutical Society of Iceland	Iceland
Teresa Almeida	National Association of Pharmacies	Portugal
Vivian Beaupoil (written inputs)	Federal Union of German Associations of Pharmacists	Germany
Wael Ali	Egyptian Organisation of Pharmacy, Development and Training	Egypt
William Mpute	Pharmaceutical Society of Malawi	Malawi
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1 Introduction

1.1 Background

The increasing complexity of healthcare, coupled with persistent disparities in health outcomes, underscores the critical need for enhanced health inclusivity, equity, and literacy across diverse populations. This necessitates a multifaceted approach that not only ensures accessible health information but also leverages the expertise of readily available healthcare professionals. Pharmacists, as highly accessible and trusted healthcare providers, are uniquely positioned to address these challenges by delivering equitable health information and fostering improved health literacy within communities [1, 2] This report explores the evolving role of pharmacists from traditional dispensers to integral public health educators, emphasising their capacity to bridge gaps in health understanding and accessibility.[1, 3]

Health inclusivity ensures that all individuals, regardless of background, have access to necessary health services. Health equity addresses the elimination of disparities in health outcomes, particularly among marginalised or underserved populations.[4, 5] Health literacy–the ability to obtain, process, and understand health information–empowers individuals to make informed decisions and engage actively in their care.[6] Accessible health information is essential for these goals, enabling patients to navigate complex healthcare systems, adhere to treatments, and advocate for their well-being.[7]

Accessible health information is a cornerstone of ensuring public health. When information is clear, culturally relevant, and available in plain language, individuals are more likely to understand their conditions, follow medical advice, and achieve better health outcomes.[8, 9] Conversely, inaccessible or overly technical information can exacerbate health disparities, particularly among those with limited literacy or disadvantaged backgrounds.[7] The COVID-19 pandemic reinforced the urgent need for equitable communication, as digital health innovations both improved access and exposed persistent gaps in digital and health literacy.[2, 10]

Pharmacies are among the most accessible healthcare settings, often embedded within communities and serving as first points of contact for health advice.[11] The evolving role of pharmacists, from medication dispensers to public health educators and care providers, positions them as key agents in addressing health literacy and equity gaps.[12, 13] Community-based pharmacies have become critical hubs for vaccination, chronic disease management, and culturally responsive care, particularly during public health crises.[3, 14] Pharmacy-based interventions, such as patient counselling, screenings, and health education, have demonstrated positive impacts on adherence, disease management, and empowerment.[15, 16]

Despite their expertise and accessibility, pharmacists often remain underutilised in public health education. Public perception or perceptions of governments, often limits their role to dispensing, overlooking their capacity to provide direct care, health screenings, and education.[8, 17] Research shows that while patients trust pharmacists for medication advice, many are unaware of their broader scope in preventive care and chronic disease management.[10, 18] Furthermore, pharmacists' cultural proximity to their communities enhances their effectiveness in tailoring equitable health information.[4, 19] Empowerment models highlight that patient–pharmacist relationships built on trust and education can enhance autonomy and engagement in healthcare decisions.[16]

To fully realise the potential of pharmacists in advancing health equity and literacy, their roles must be strengthened and recognised within health systems. This involves:

- Expanding scope of practice: Empowering pharmacists to deliver preventive care, chronic disease management, and health screenings, alongside medication counselling.[12, 13]
- Integrating pharmacists into public health initiatives: Leveraging their community presence to deliver culturally tailored education and reduce disparities.[14, 19]
- Enhancing pharmacy education: Reforming curricula to emphasise patient-centred care, health literacy, and empowerment strategies.[9, 15]
- Policy support: Policymakers and health leaders must strengthen practice frameworks, particularly in underserved areas affected by pharmacy closures.[20]

Pharmacists represent an often underutilised yet essential workforce in promoting health inclusivity, equity, and literacy. By expanding their roles in public health education, integrating them into broader health initiatives, and

supporting them through education and policy reform, pharmacists can serve as catalysts for more equitable and effective healthcare systems. Strengthening their role is not just an opportunity but a necessity for modern healthcare delivery.

1.2 FIP DG 10 and the prior work on health literacy

FIP's Development Goal 10 (DG10): Health equity and equality addresses the profession's responsibility to advance equitable healthcare delivery and reduce health disparities. DG10 calls on pharmacy stakeholders worldwide to ensure that services are inclusive, culturally responsive, and accessible to all in society, especially vulnerable or marginalised groups.

FIP's dedicated health literacy publications page[21] currently features four major reports that provide practical tools and global perspectives for the profession:

- Global pharmacy trends and implications for self-care: Report from a FIP insight board (2024)[22]
- Health inclusivity, agency and empowerment: Developing solutions to help pharmacists drive better health outcomes (2023)[23]
- Identifying pharmacy-led actions for improving health literacy (2023)[24]
- Empowering self-care (2022)[25]

Together, these publications strengthen FIP's mission by demonstrating how health literacy, inclusivity, and equity can be translated from conceptual goals into concrete actions within pharmacy practice. By providing evidence-based guidance and actionable recommendations, the publications help ensure that these principles are embedded in everyday pharmacy services, reinforcing the role of pharmacists in advancing health literacy through active engagement in public health campaigns and patient education initiatives.

1.3 Aim and objectives

The project aims to explore the role of pharmacists in advancing health literacy through active engagement in public health campaigns and patient education initiatives. Insights were generated to identify current pharmacist practices, key barriers to their involvement, and practical strategies to strengthen pharmacist-led contributions toward advancing global health literacy, equity, and inclusivity at regional and national levels.

The objectives of this project are as follows:

1. To understand the degree to which individual pharmacists currently participate in public health and health literacy campaigns and the types of initiatives they are involved in.
2. To identify the key challenges preventing pharmacists from taking on greater roles in health promotion (e.g., resource constraints, training gaps) and identify enabling factors that encourage involvement.
3. To gather examples from member organisations of effective or innovative pharmacist-led initiatives, including strategies, partnerships, or policy support that have demonstrated measurable impact on patient/public health literacy.
4. To use the insights collected to inform advocacy campaigns and regional activities, creating targeted and evidence-based strategies to better position pharmacists in health literacy roles.

2 Methodology

2.1 Methods overview

This project employed a mixed-methods approach, combining a survey and semi-structured interviews to provide a comprehensive evidence base on the role of pharmacists in advancing health literacy. The survey captured practice-level insights from individual pharmacists about their direct involvement in public health activities, while the interviews generated broader national and regional perspectives from FIP member organisations.

The survey was disseminated between 23 May and 23 June 2025 to pharmacists across different regions to gather firsthand insights into their participation in public health campaigns, the types of initiatives they engaged in, perceived challenges, and areas where further support is needed.

Semi-structured interviews were conducted between 3 June and 30 June 2025 (including contacting organisations, scheduling and conducting interviews) with representatives of FIP member organisations. These interviews aimed to capture national and regional perspectives on pharmacists' involvement, advocacy roles, and the potential for collaborative public health initiatives. Figure 1 shows the promotional poster which was created and shared on FIP's social media channels to promote engagement efforts for the interviews.

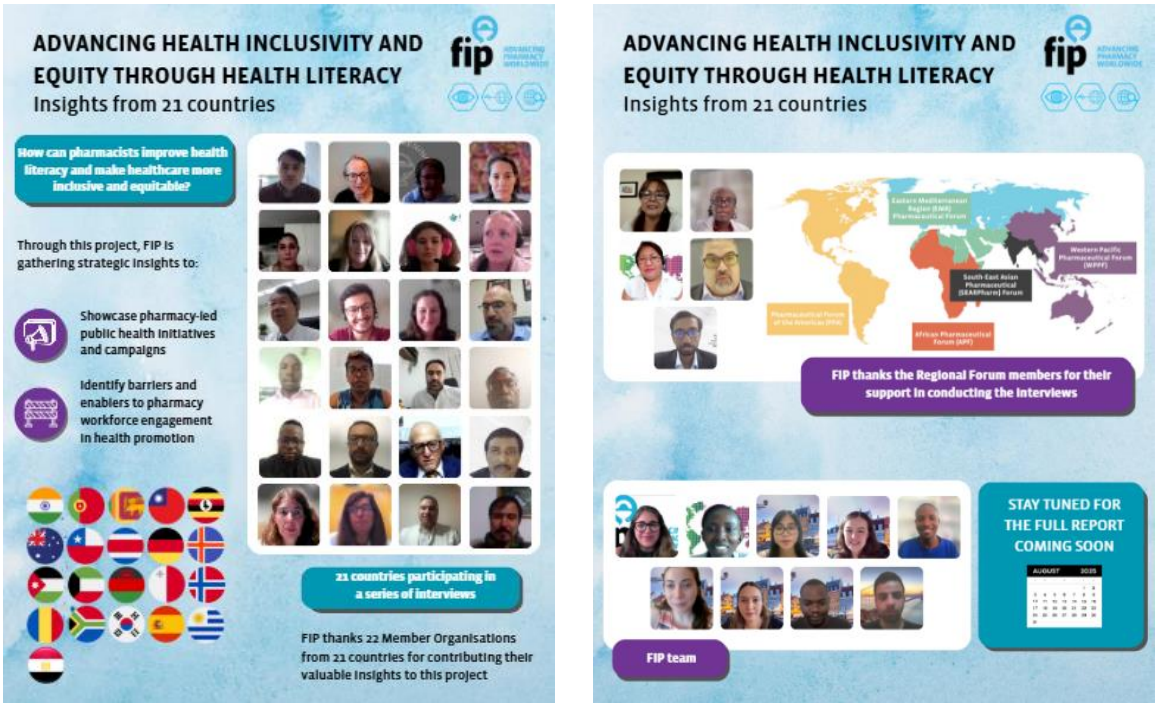

Figure 1: Promotional post highlighting the semi-structured interviews with representatives from FIP MOs

2.2 Sampling and participation

The survey was distributed to FIP individual members, with 149 responses received from 52 countries. For the semi-structured interviews, invitations were extended to FIP member organisations, with 22 organisations from 21 countries participating. This broad geographic coverage, with all six WHO regions represented, ensured the inclusiveness of the study and increased the global relevance of the findings for FIP members.

2.3 Data collection and analysis

The survey was available in English, French, and Spanish and was open from 23 May to 23 June 2025, distributed by FIP through the Global Pharmaceutical Observatory as usual. The survey comprised nine focused questions targeting practicing pharmacists working in community, hospital, academic, or public health settings and explored pharmacists' recent participation in public health initiatives, the types of campaigns they engaged in, challenges and barriers to involvement, perceptions of the value of public health campaigns, the use of digital tools for health literacy, and support or training needs. Both multiple-choice and open-text questions were included to capture their practical insights.

In parallel, invitation emails were sent to FIP member organisations on 3 June 2025. Representatives who indicated interest were invited to a 20–30-minute semi-structured online interview between 11 June and 30 June 2025. The interviews comprised seven guiding questions designed to capture strategic insights on pharmacists' involvement in public health and health literacy campaigns. These included current roles, successful examples, leadership, effectiveness, challenges and barriers, supportive structures or policies, the use of digital tools, emerging opportunities, and resources or training needs.

2.4 Data analysis

The data gathered were analysed during July and August 2025.

- Survey responses were cleaned and summarised using descriptive analysis to identify common patterns.
- Interview data were transcribed, translated where necessary (two interviews were conducted in Spanish), validated by participants, and analysed thematically.

Figure 2 illustrates the overall data collection and analysis process, from invitations to the survey and interviews, through to descriptive and thematic analysis.

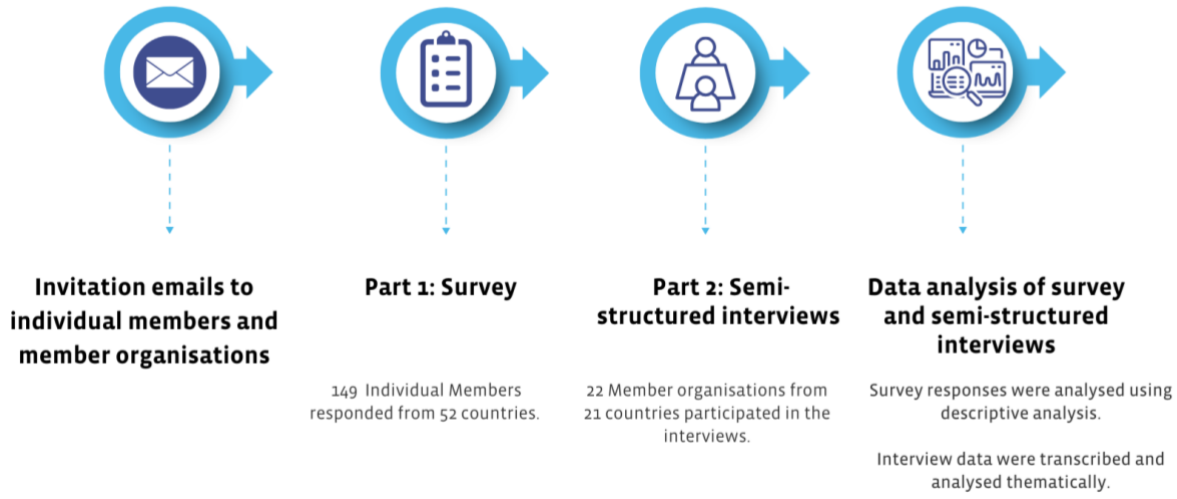

Figure 2: Summary of data collection and analysis

3 Survey findings: Perspectives and experiences of individual pharmacists

This chapter reports on survey findings from pharmacists in 52 countries (n = 149), providing a thorough analysis of their characteristics, participation in public health initiatives, attitudes, use of digital tools, and perceived support and training needs.

3.1 Respondent characteristics

In total, 149 survey responses were received from pharmacists across 52 countries, as shown in Table 1, reflecting a broad distribution of perspectives. The countries with the highest number of responses were Peru (16 responses), followed by the USA (15 responses) and Nigeria (11 responses). The median years of professional practice among participants were 24 years, indicating that the survey captured insights from individuals with substantial experience in the pharmacy field.

Table 1: Survey responses from pharmacists in 52 countries (n = 149)

Region	Countries	Response rate (%)
Africa	Ethiopia, Equatorial Guinea, Ghana, Guinea, Kenya, Nigeria, South Africa, Togo, and Zimbabwe.	19.46
Americas	Argentina, Barbados, Brazil, Canada, Chile, Costa Rica, Ecuador, Mexico, Peru, Uruguay, and the USA.	34.9
Eastern Mediterranean	Lebanon, Oman, Pakistan, the UAE, and Yemen.	4.03
European	Albania, Andorra, Croatia, Denmark, Ireland, Italy, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Spain, Tukey, and the UK.	22.82
South-East Asia	Bangladesh, India, Indonesia, Sri Lanka, and Thailand.	6.71
Western Pacific	Australia, China Taiwan, Japan, Malaysia, New Zealand, and the Philippines.	12.08

As illustrated in Figure 3, respondents represented a wide range of professional settings. The largest proportion reported working in community pharmacy (30.2%), followed by academia (24.83%). Smaller but important groups worked in hospital pharmacy (13.42%) and regulatory agencies (6.71%), while government agencies (4.7%) and primary health care environments outside of community pharmacy (3.36%) were less represented. A further 13.42% of respondents selected 'Other sectors', which included roles in health informatics, professional organisations, health technology, consulting, and university-based work, among others.

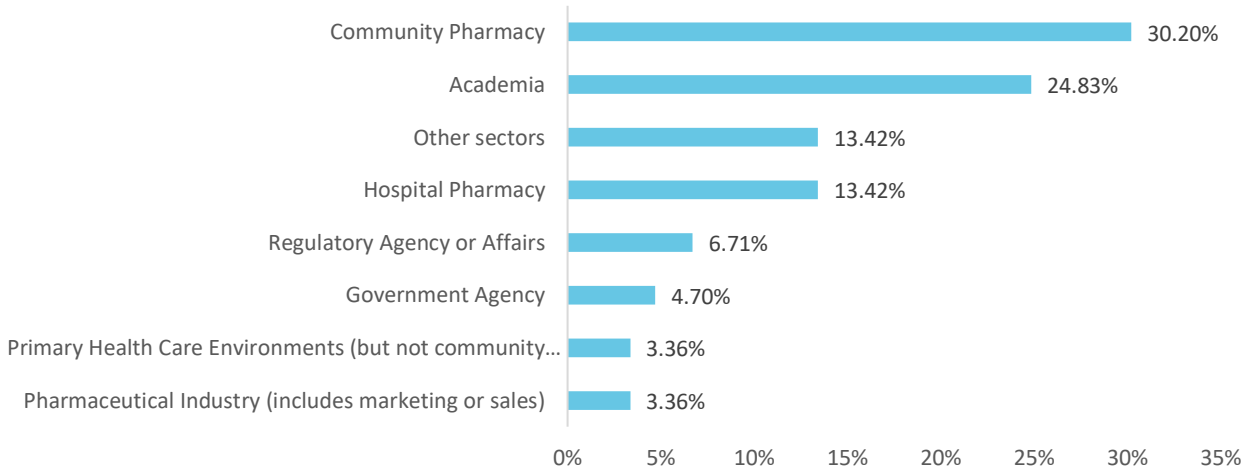

Figure 3: Sector of practice distribution

3.2 Participation in public health initiatives and barriers to engagement

Out of 149 respondents, as shown in Figure 4, a substantial proportion (72%) reported having participated in public health initiatives or patient education campaigns within the past year. This indicates a high level of engagement among healthcare professionals in community health promotion.

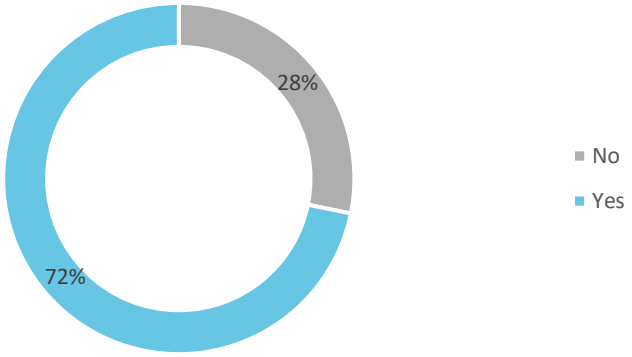

Figure 4: Participation in any public health initiatives or patient education campaigns in the past year

Among those who participated in public health initiatives or patient education campaigns over the last year, as illustrated in Figure 4, the largest proportion (40.19%) reported involvement in more than three initiatives, as illustrated in Figure 5. A smaller yet equal share of respondents participated in either one initiative (29.91%) or two to three initiatives (29.91%). This distribution indicates that while some respondents are moderately engaged, a significant portion demonstrates a high level of sustained involvement across multiple initiatives.

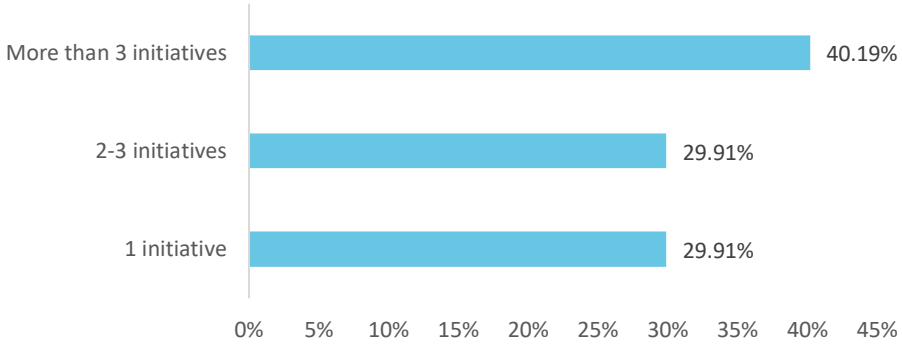

Figure 5: Number of initiatives involved in

As illustrated in Figure 6, the most frequently reported areas of involvement were:

1. Medication safety and adherence (21.6%): The most common focus, highlighting strong prioritisation of treatment compliance and safe medication practices.

2. Infectious disease and vaccination (20.2%): A closely followed area, reflecting ongoing public health emphasis on immunisation and disease prevention.
3. Chronic disease management (18.8%): Another key focus, underscoring the importance of long-term management of conditions.

Together, these three domains accounted for nearly 60% of reported initiatives, indicating that most efforts are concentrated on improving patient outcomes through adherence, prevention, and chronic care strategies.

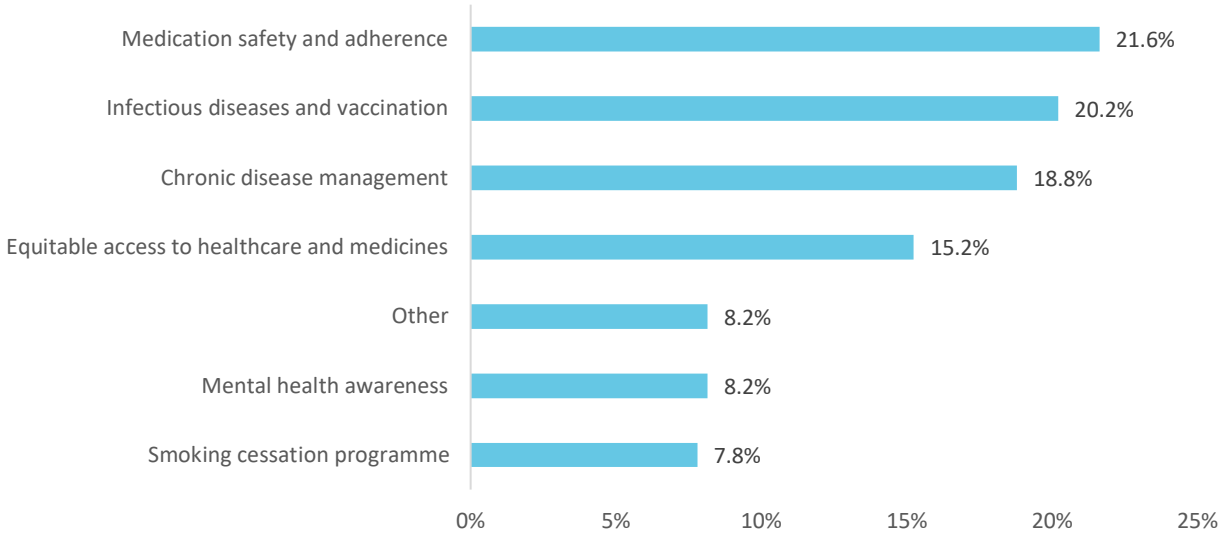

Figure 6: Types of public health initiatives participated in

Public health campaigns were initiated by a variety of actors. As shown in Figure 7, the most common campaign initiators were self-initiated or community-led activities (31.5%), followed by the ministry of health or government body (19.5%), national pharmacy association (19%) and employers or workplaces (18.5%). Other sources accounted for 11.%. These findings suggest that grassroots initiatives play a central role in driving public health engagement.

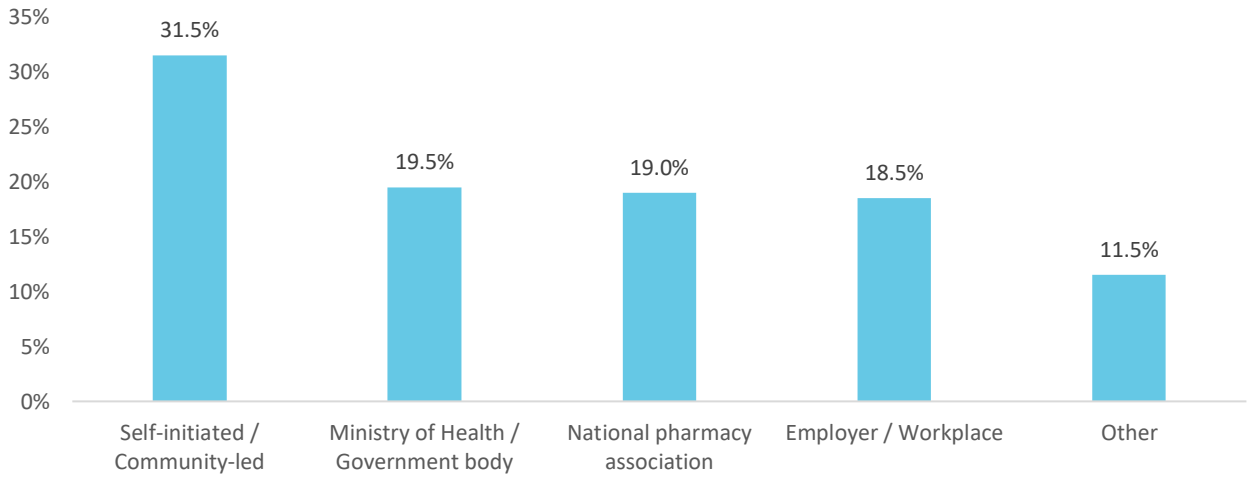

Figure 7: Public health campaign initiators

Several barriers to engagement in public health initiatives were identified, as illustrated in Figure 8. The leading barriers to participation were lack of time to participate in campaigns (26.0%). Additional barriers included lack of incentives or recognition (18.1%) and limited institutional/employer support (17.7%), suggesting that organisational and motivational factors also play a major role. To a lesser extent, respondents identified low public interest or uptake (11.6%), not aware

of such opportunities (10.8%), and insufficient training on health promotion (9.0%), with a small proportion selecting other (6.9%).Overall, time constraints, organisational and motivational factors emerged as the primary obstacles to wider pharmacist engagement in public health initiatives.

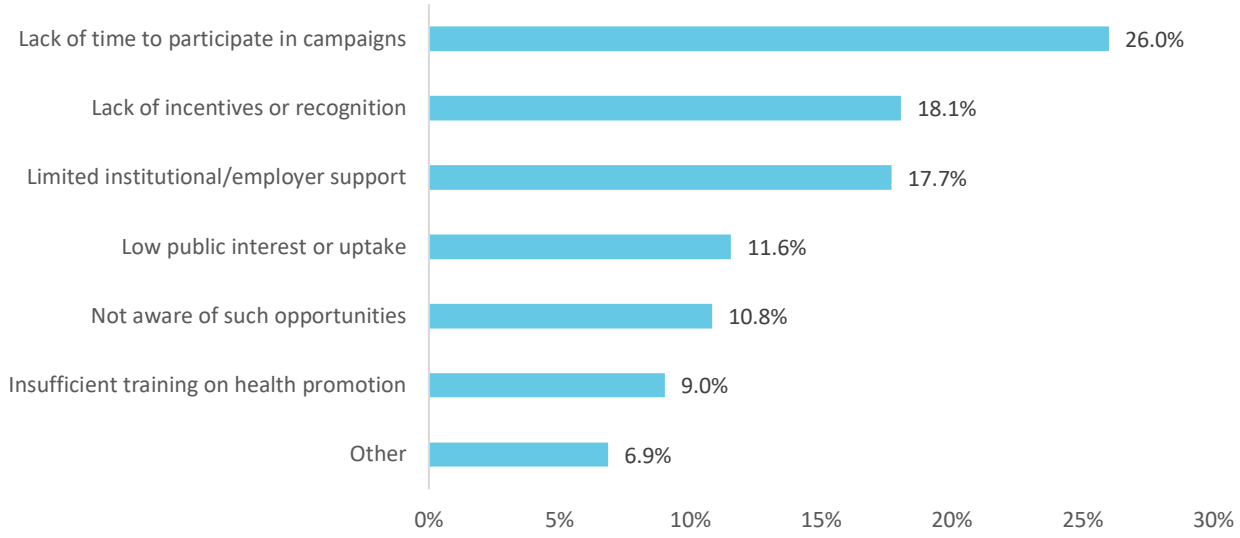

Figure 8: Distribution of responses to challenges that prevented engagement in public health initiatives

3.3 Attitudes toward public health campaigns in pharmacy practice

Understanding pharmacists' perspectives on public health campaigns is essential for assessing their current role and identifying areas for future support. To explore this, participants rated their agreement with a series of statements concerning preparedness, training needs, perceived business value, and the broader impact of public health campaigns on trust and outcomes.

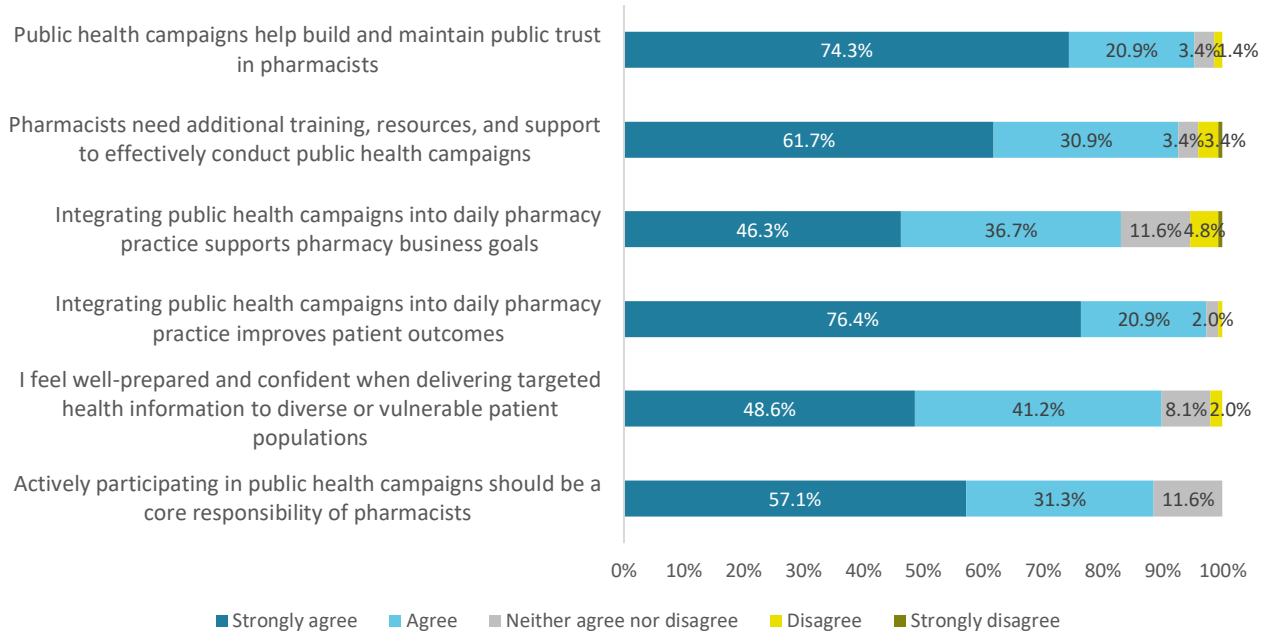

Figure 9 illustrates agreement and disagreement patterns across the statements. Overall, the results indicate broad recognition of the value of public health campaigns but also highlight areas of uncertainty and division.

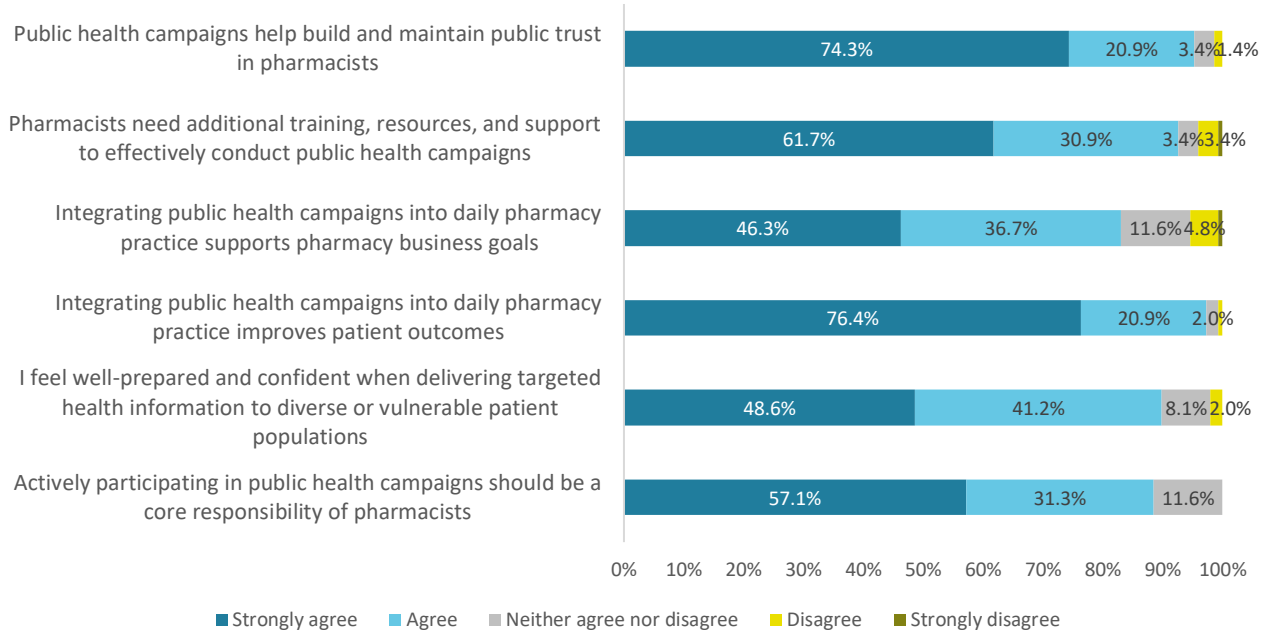

Figure 9: Distribution of responses to statements on public health campaigns

The findings can be categorised into three main areas: Professional role and public trust; Preparedness and training; and Perceived benefits. Each reflects how pharmacists perceive their responsibilities, capacity, and the impact of public health campaigns.

1. **Professional role and public trust**

   Most participants strongly agreed or agreed that public health campaigns help build and maintain trust in pharmacists. They also generally strongly agreed or agreed that participating in public health campaigns should be part of a pharmacist's core responsibility.

2. **Preparedness and training needs**

   Many participants strongly agreed or agreed that they feel prepared and confident in delivering targeted health information to diverse or vulnerable patient populations. At the same time, most also strongly agreed or agreed that pharmacists need additional training, resources, and support to effectively conduct public health campaigns.

3. **Perceived benefits**

   Most respondents strongly agreed or agreed that integrating public health campaigns into daily practice improves patient outcomes. Views on business goals were still mostly positive, though there were more neutral and disagree responses compared with the other items.

Taken together, the findings suggest that pharmacists generally held positive views about the professional value of public health campaigns and their benefits to improve patient outcomes. They also expressed confidence in their ability to contribute to these campaigns, while at the same time acknowledging gaps in their training and the need for additional support.

3.4 Use of digital tools in health literacy and patient education, and barriers to digital integration

The distribution of digital technology use shows a fairly balanced spread across the three response categories in Figure 10. A majority (45%) of respondents reported using digital tools occasionally, indicating moderate but not fully integrated adoption. Regular use was reported by 28%, while 27% reported no use at all. This suggests that while a portion of the population has embraced digital practices, there remains a significant segment either hesitant or lacking access to regular use, pointing toward partial adoption rather than widespread digital integration.

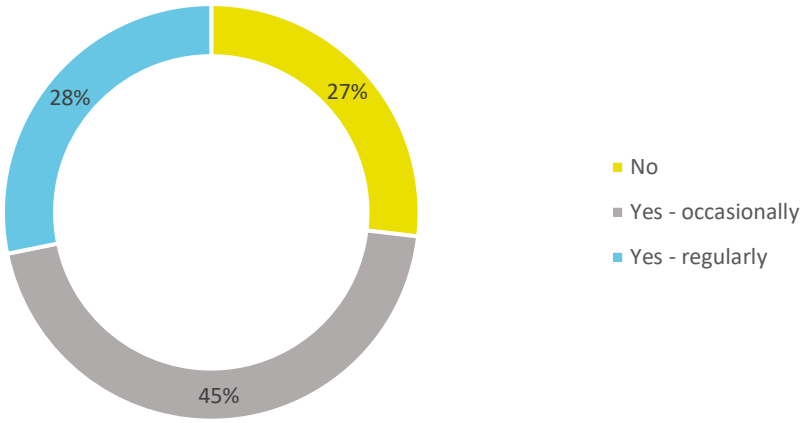

Figure 10: Distributions of responses to the use of digital tools as part of health literacy or patient education efforts

Several challenges to the adoption of digital technology have been identified, as shown in Figure 11. The most frequently cited is limited digital literacy among patients (27.3%), highlighting a critical challenge in ensuring equitable use of health technologies. Time constraints in daily practice (19.9%) and inadequate access to digital infrastructure (19.2%) were also commonly cited, highlighting the practical and resource-related pressures that restrict digital integration. Insufficient training or technical support (18.5%) further indicates that many practitioners feel underprepared to use digital technologies confidently. Privacy or security concerns (11.8%), while less frequently mentioned, remain an important consideration in maintaining trust and safeguarding patient information.

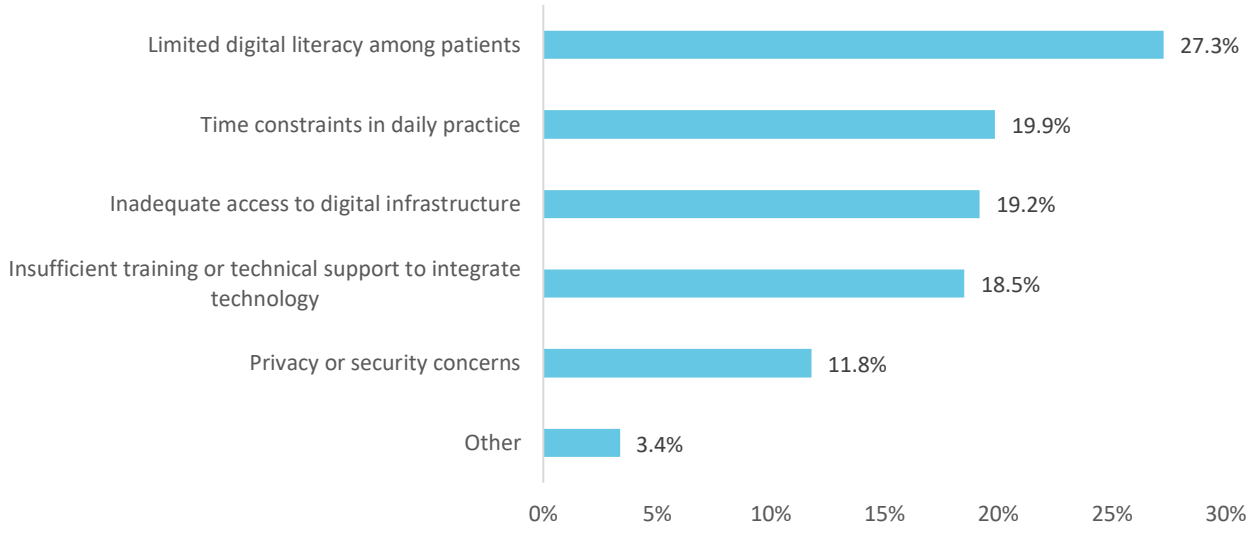

Figure 11: Challenges encountered when integrating technology for health literacy improvement

3.5 Support and training needs

Improving the role of pharmacists in public health and health literacy requires understanding not only their current capabilities, but also the types of support they feel would enable them to contribute more effectively. The survey responses provided a broad range of perspectives, which have been consolidated into five major clusters of needs. Table 2 summarises the areas of support and training required for pharmacists' engagement in public health and health literacy. It highlights the main areas where pharmacists require additional skills, resources, or systemic backing to strengthen their role.

Table 2: Key areas of support and training required for pharmacists' engagement in public health and health literacy

Themes	Training required
1. Skills and knowledge development	• Training on chronic disease management, prevention, and public health basics • Health literacy and communication skills (plain language, numeracy, cultural competence, misinformation countering) • Digital skills, including AI, online platforms, telehealth, and content creation • Campaign design, implementation, and evaluation methods
2. Tools and resources	• Ready-to-use multilingual and literacy-sensitive materials (infographics, pictograms, scripts, apps) • Access to validated, evidence-based, and accredited content hubs • Equipment and supplies to run screenings or health checks • IT infrastructure and secure digital tools
3. Recognition and accreditation	• Accredited courses, certifications, and CPD pathways • Formal endorsement by ministries, regulators, or professional associations • Inclusion of pharmacists in official health literacy and public health policies
4. Structural and system support	• Protected time and workload adjustments • Additional staff or task-sharing support • Financial support (grants, budgets for campaigns, equipment) • Government and institutional backing
5. Collaboration and networks	• Interprofessional training and workshops • Local partnerships with health authorities, hospitals, and NGOs • Professional communities of practice and mentorship opportunities

The findings show that pharmacists see clear opportunities to strengthen their role in public health through ongoing skills development, access to practical tools, and formal recognition of their contributions. In particular, health literacy communication, digital competencies, and campaign delivery skills were frequently highlighted as areas where additional training would enable more effective engagement with patients and communities.

At the same time, respondents emphasised that training alone is not enough. Time, resources, and structural support are often lacking, and pharmacists' contributions are not always recognised within health systems or policies. Addressing these gaps holistically, through accreditation, financial and staffing support, and stronger collaboration with health authorities, will be essential to empower members to embed public health and health literacy more fully into everyday practice.

4 Interview findings: National and regional insights from FIP member organisations

This chapter synthesises qualitative inputs collected from structured interviews with representatives from 22 FIP member organisations across 21 countries. Table 3 provides an overview of all the countries in the various regions that participated in the interview. Details on the interview participants, organisational affiliations can be found in the acknowledgement section.

Table 3: Interview participation - 21 countries across 6 regions

Region	Countries	Number of countries
Africa	Malawi, Uganda, South Africa	3
Americas	Chile, Uruguay, Costa Rica	3
Eastern Mediterranean	Jordan, Kuwait, Egypt	3
European	Portugal, Malta, Iceland, Romania, Spain, Norway, Germany	7
South-East Asia	India, Sri Lanka	2
Western Pacific	Taiwan, South Korea, Australia	3

The findings are categorised into seven themes, as illustrated in Figure 12, and are discussed in detail in the following sections:

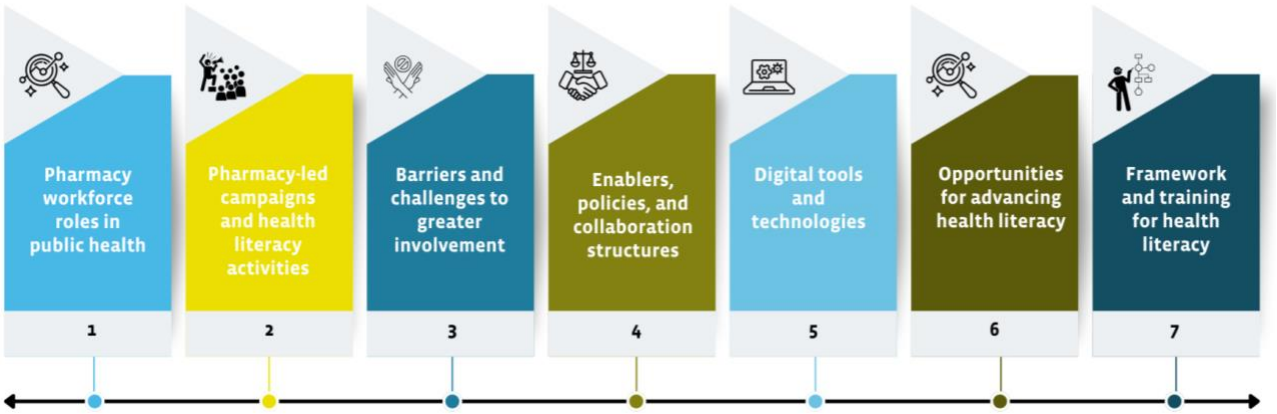

Figure 12: Overview of seven key themes from interview findings

4.1 Pharmacy workforce roles in public health

Pharmacists are uniquely positioned to play a variety of roles in advancing public health. Their contributions span preventive services, public education, continuity of care, addressing service delivery gaps, particularly during health emergencies, vaccination, and patient safety.

One country that captures this perspective is Spain:

> *"Historically, pharmacists have been involved in different areas of public health in Spain, from health education, food safety, environmental health, training, research, health management, health inspection, and public health laboratories" – Spain*

Pharmacists worldwide play key roles in vaccination delivery, access, and patient education, especially during COVID-19. Integration into national vaccination campaigns, seen in countries such as Portugal, Taiwan, South Africa, and Australia, highlights growing recognition of pharmacists as frontline vaccinators and educators.

In many countries, pharmacists' public health roles are formally recognised by law or regulation. Some countries show strong integration into public health systems, where pharmacists work alongside doctors, nurses, and social workers. Others lack institutional backing where pharmacists are legally recognised, but underfunded and unsupported. Some countries also have limited government engagement, creating structural barriers and a need to rely on non-governmental organisations or private initiatives.

"Pharmacists are slowly beginning to participate in health education and patient safety initiatives. We don't have a structured cycle like certain countries... but some responsible organisations, some private sector [groups], they organise... ongoing education... we are slowly penetrating toward the community and healthcare providers to engage the patient for patient safety." – Sri Lanka

4.2 Pharmacy-led campaigns and health literacy activities

Pharmacists worldwide have spearheaded a wide range of public health campaigns, from vaccination drives and antimicrobial resistance (AMR) initiatives to chronic disease screening and medicine safety programmes.

Some key initiatives include:

- Norway's "Return Antibiotics to the Pharmacy" campaign and Uganda's AMR clubs highlighted rational antibiotic use. Their success stemmed from collaboration across competing pharmacy chains, integration with doctors, and student-led outreach amplified by social media.
- In Malta, Portugal, Taiwan, and India, pharmacists conducted medication reviews, diabetes consultations, and community screenings. These programmes were effective because they combined trusted pharmacist-patient relationships with holistic care models, often linking pharmacies to social services or academic partners.

"We are making arrangements for programmes in different villages, towns, and cities, so that the patient will get information on how to take care of themselves at home, disease prevention, and hospital care"– India

In addition to public health programmes, pharmacists demonstrated strong progress in hospital-based and interprofessional practice. For instance, in Malta, 24/7 ICU clinical pharmacist coverage reduced infections and shortened hospital stays. In South Korea, hospital-to-community transition-of-care models improved medication safety post-discharge.

"Pharmacists are now exploring home-based cancer treatment and parenteral nutrition support – these are new frontiers." – Malta

Furthermore, in Spain, sentinel pharmacy networks provided epidemiological surveillance to support health authorities. Pharmacist roles are only continuing to expand in scope.

4.3 Barriers and challenges to greater involvement

Pharmacists' engagement in public health and health literacy initiatives remains constrained by a wide range of structural and systemic barriers and challenges. The most reported barriers include restrictive regulatory frameworks that limit the scope of practice, underlying systemic gaps within the national health systems, and inadequate remuneration or funding mechanisms to fund these initiatives. In many settings, pharmacies are not formally recognised or included within national programmes, further weakening their potential contribution to public health delivery.

In Romania, the absence of a clear and predictable legal framework restricts pharmacists' ability to engage fully in public health services.

"Even though the law mentions the pharmacist's educational role, there are no clear and consistent regulations for implementing, evaluating, and reimbursing these activities (such as counselling, screening, or vaccination)."– Romania

Similarly, in South Africa, pharmacists already carry out key responsibilities as Pharmacy-Initiated Management of Antiretroviral Treatment (PMART) and public health pharmacists but remain limited by delayed regulatory approvals.

"Pharmacists are already doing the work as PMART and public health pharmacists, but without final regulatory approval, their full recognition is still limited." – South Africa.

Across many countries, a recurring theme is the lack of sustainable remuneration models and limited government or institutional funding to support pharmacists beyond traditional dispensing roles. In Malta, for example, pharmacists are remunerated for carrying out some services such as medicine reviews, but essential supportive services such as point-of-care testing for blood glucose or blood pressure remain unfunded.

4.4 Enablers, policies, and collaboration structures

Successful advocacy efforts were seen in a variety of countries. The Malta Pharmaceutical Association uses economic evidence to prove the cost-effectiveness of pharmacy services. Sustained advocacy efforts by the Pharmaceutical Society of Australia (PSA) proved to be successful and led to medicine safety being recognised as a national healthcare priority. Additionally, the Indian Pharmaceutical Association leverages support from industry and hospitals to sustain nationwide education programmes. These examples demonstrate the potential impact of advocacy by national organisations, leading to expanded roles and health prioritisation.

"We managed to make medicine safety a national healthcare priority. That came through sustained advocacy by the Pharmaceutical Society of Australia, including publishing targeted reports and sharing findings with stakeholders."

Furthermore, academic-practice collaborations are tools that have enabled pharmacists to create a broader reach in making an impact on health literacy. These collaborations go beyond academia and pharmacy practice but also exist interprofessionally. Malta has pioneered interprofessional education (IPE) by training pharmacy and medical students together at the Faculty of Medicine and Surgery. This fosters early mutual respect and collaboration between doctors and pharmacists, laying the foundation for stronger integration in clinical and public health settings.

"Pharmacy and medical students are trained jointly at the University of Malta's Faculty of Medicine and Surgery. Early interprofessional education fosters pharmacist–doctor collaboration and mutual respect." – Malta

Portugal's partnerships between universities and pharmacies (e.g., iodine supplementation programmes, sun-safety education in schools) demonstrate how academia provides evidence-based content and pharmacists deliver outreach, creating a two-way learning model.

4.5 Digital tools and technologies

Digital technologies are increasingly transforming how healthcare information is delivered to patients due to their accessibility and reach. As pharmacists also frequently interact with patients, they make use of these tools such as social media platforms (Instagram, Facebook, and LinkedIn), informational websites, mobile applications, and helplines to provide patient education and support health communication.

In some countries, these tools are already well established and leveraged. For example, in Norway, citizens can access comprehensive health and prescription information through a national website, which proved to be vital during the COVID-19 pandemic and continues to serve as a central channel for public health communication today.

However, in other countries, adoption of digital tools remains limited. In Malta, pharmacists rarely use digital applications, platforms, or videos for patient outreach, but instead prefer in-person consultations, largely due to cultural norms and the wide physical accessibility of pharmacies across the country.

Common barriers to wider adoption of digital tools for patient education and public health outreach by the pharmacy workforce include cultural norms and resistance to change, limited infrastructure and connectivity, high costs of technology and data, digital literacy gaps among patients and pharmacists, system-level limitations such as fragmentation, lack of institutional support, and interoperability issues.

For instance, in Malawi, poor internet connectivity continues to restrict the use of digital tools in public health campaigns.

"The main challenge is limited internet access, especially in rural areas where most of the population lives." – Malawi

Similarly, in Kuwait, pharmacists lack awareness of existing digital tools.

"Maybe it's about knowledge of these digital tools. It's a big limitation. We don't know what tools are available and how maybe to use them is a big limitation for us." – Kuwait

Despite these challenges, many countries are showing readiness for future digital innovation. In Australia, for example, public health messaging has shifted from traditional media toward digital platforms, with increasing investment in social media and opportunities for AI-enabled personalisation.

“Social media has become a key space for public health messaging. This year, the government spent more on social media advertising for the flu campaign than on traditional broadcast media.” – Australia

4.6 Opportunities for advancing health literacy

Various opportunities have been highlighted for the pharmacy workforce to advance health literacy, including but not limited to advocacy for equitable access to medicines and the provision of health information through campaigns, communication channels, and diagnostic services.

Across countries, pharmacists emphasise their role as strong advocates for equitable medicine access, particularly for vulnerable and underserved populations. In India, for example, opportunities exist to strengthen advocacy by formally integrating pharmacists as partners with government bodies such as the WHO and FIP, thereby positioning them as recognised leaders in health literacy and education.

"We need to bring pharmacists front and centre, so that patients can see the roles of pharmacists. In India, we are promoting to educate pharmacists and pharmacy students to become specialists in one particular organ so that they need to know all the entire diseases." – India

Furthermore, pharmacies are increasingly recognised as community hubs for health information, education campaigns, and early diagnostics. In Romania, with over 8,000 pharmacies spread across the country, including small towns or rural areas, pharmacists often serve as the first and only healthcare professional available. This extensive reach offers a powerful platform for improving health literacy.

"Pharmacies can become local hubs for health education campaigns, using posters, special events, short counseling sessions, and informative materials." – Romania

Pharmacists across different regions are envisioning expanded roles that go beyond dispensing, positioning themselves as public health educators, clinical counsellors, and advocates for healthier communities. Many countries highlight the opportunity for pharmacists to lead new services such as vaccination programmes, chronic disease management, clinical pharmacy services, public awareness campaigns, and personalised patient counselling. These roles not only strengthen patient trust but also enhance the visibility of pharmacists as essential contributors to health literacy.

In Jordan, for example, pharmacists see potential in creating new specialised roles such as public health pharmacists and media pharmacists. These professionals would use television and social media platforms to communicate accurate health information, counter misinformation, and raise public awareness on critical issues such as weight-loss drug misuse.

> *"Pharmacists should host TV programmes and social media programmes dedicated to accurate health information, just as journalists cover politics or the economy. Pharmacists can become trusted sources to counter misinformation online." – Jordan*

4.7 Framework and training for health literacy

While some countries have established frameworks and training to strengthen the role of pharmacists in health literacy, others—such as India, South Africa, and Romania—still face significant gaps. In these settings, no dedicated national frameworks exist, and efforts are often fragmented, limited to CPD activities or guidelines embedded within Good Pharmacy Practice. As highlighted in South Africa:

> *"Current CPD processes risk being treated as a compliance checkbox rather than a tool to strengthen real competence in areas like health literacy." – South Africa*

In contrast, countries like Malta have made progress in aligning training with service delivery. Pharmacists in Malta benefit from CPD programmes developed in collaboration with the University of Malta's Department of Pharmacy, ensuring direct alignment between academic training and professional practice.

However, even in countries where such frameworks exist, recognition or accreditation by government authorities is not always guaranteed. For example, in Norway, the Apokus training platform is widely used as the standard for pharmacy employees, promoting consistent quality of care, yet it lacks formal government accreditation.

Partnerships between academia and pharmacy organisations have been shown to play a key role in embedding health literacy within training. In Portugal, collaboration between the National Association of Pharmacies and universities such as Minho and Algarve has supported targeted health literacy campaigns, including iodine supplementation awareness for pregnant women.

In addition, accreditation remains a key factor in ensuring the quality and mobility of training. In Malta, for instance, the PharmD programme is accredited by the European Union, setting a benchmark for practice-oriented, internationally recognised training. However, in Kuwait, CPD sessions are frequent and practical but lack government accreditation, with participants receiving only certificates of attendance.

> *"The government doesn't provide accredited hours for pharmacists in Kuwait, but we do provide certificates of attendance for these sessions." – Kuwait*

5 Recommendation and conclusions

The survey and interview findings demonstrate that pharmacists are key contributors to public health and health literacy globally. Survey data show that most pharmacists (72%) engage in initiatives such as medication safety, vaccination, and chronic disease management, often driven by community efforts and professional associations. Interviews with FIP member organisations highlight that pharmacists' effectiveness is influenced by structural and systemic factors, including legal recognition, funding, interprofessional collaboration, and training frameworks. Digital tools are increasingly used but unevenly adopted due to infrastructure, literacy, and cultural barriers. While pharmacists are motivated to participate, gaps in training, recognition, and resources limit their full potential in advancing health literacy.

Actionable recommendations:

For FIP:

1. Strengthen global training and professional development: Develop and disseminate standardised modules on health literacy, public health campaigns, chronic disease management, and digital communication to build the knowledge and skills of pharmacists.
2. Support accreditation and recognition: Provide guidelines and frameworks for CPD, certification, and inclusion of public health activities into pharmacists' roles to enhance professional recognition.
3. Promote digital health integration: Create resources and toolkits to facilitate the use of digital platforms for patient education and community outreach, particularly in regions with limited access.

For member organisations:

1. Facilitate structural support: Encourage pharmacies to allocate time, staffing, and resources to enable active participation in public health initiatives.
2. Foster interprofessional collaboration: Promote partnerships with academic institutions, healthcare providers, and other relevant stakeholders to implement coordinated campaigns and training programmes.
3. Leverage pharmacies as community health hubs: Expand the role of pharmacies in preventive care, diagnostics, patient counselling, and public health education, especially in underserved areas.

For policymakers:

1. Recognise pharmacists' role in public health: Include pharmacists in national health strategies, vaccination programmes, and public health campaigns, supported by clear regulations and legal frameworks.
2. Ensure sustainable funding and incentives: Provide financial support, remuneration, and infrastructure to integrate pharmacists fully into health promotion and literacy initiatives.
3. Strengthen digital and health literacy policies: Improve access to digital health tools, ensure equitable use, and incorporate pharmacists as trusted communicators in national health information strategies.

By implementing these recommendations, FIP, member organisations, and policymakers can empower pharmacists to act as health literacy champions, enhance public trust, and maximise the impact of pharmacy-led initiatives on patient outcomes and community health.

6 References

1. Matowe L, Mori A, Mawa S. Enhancing the role of pharmacists in public health in developing countries. The Pharmaceutical Journal. 2012;288. [Cited: 15 September 2025]. Available at: https://www.researchgate.net/publication/236058935_Enhancing_the_role_of_pharmacists_in_public_health_in_developing_countries.
2. Watson KE, Singleton JA, Tippett V et al. Defining pharmacists' roles in disasters: A Delphi study. PLOS ONE. 2019;14(12):e0227132. [Cited: 15 September 2025]. Available at: https://dx.doi.org/10.1371/journal.pone.0227132.
3. Strand MA, Bratberg J, Eukel H et al. Community Pharmacists' Contributions to Disease Management During the COVID-19 Pandemic. Prev Chronic Dis. 2020;17:E69. [Cited: 15 2025]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/pmid/32701431/.
4. Stoneman J, Taylor S. Pharmacists' views on Indigenous health: is there more that can be done? Rural and Remote Health. 2007. [Cited: 15 September 2025]. Available at: https://dx.doi.org/10.22605/rrh743.
5. Zagel AL, Brummel AR, Chacon M et al. The Impact of Health Equity-Informed Eligibility Criteria to Increase the Delivery of Pharmacist-Delivered Comprehensive Medication Management Services for Patients with High Blood Pressure. J Public Health Manag Pract. 2024;30:S141-s51. [Cited: 15 September 2025]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/pmid/39041750/.
6. Williams MV, Parker RM, Baker DW et al. Inadequate functional health literacy among patients at two public hospitals. Jama. 1995;274(21):1677-82. [Cited: 15 September 2025]. Available at: https://jamanetwork.com/journals/jama/fullarticle/vol/274/pg/1677.
7. Institute of Medicine Committee on Health L. In: Nielsen-Bohlman L, Panzer AM, Kindig DA, editors. Health Literacy: A Prescription to End Confusion. Washington (DC): National Academies Press (US) Copyright 2004 by the National Academy of Sciences. All rights reserved.; 2004.
8. Coughlin SS, Vernon M, Hatzigeorgiou C et al. Health Literacy, Social Determinants of Health, and Disease Prevention and Control. J Environ Health Sci. 2020;6(1). [Cited: 15 September 2025]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC7889072/pdf/nihms-1668987.pdf.
9. Wood H, Brand G, Clifford R et al. Developing health literacy education for tertiary-based health or social care professions students: a scoping review. Health Literacy and Communication Open. 2025;3(1):2445713. [Cited: 15 September 2025]. Available at: https://doi.org/10.1080/28355245.2024.2445713.
10. Goff DA, Ashiru-Oredope D, Cairns KA et al. Global contributions of pharmacists during the COVID-19 pandemic. J Am Coll Clin Pharm. 2020;3(8):1480-92. [Cited: 15 September 2025]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC7537072/pdf/JAC5-3-1480.pdf.
11. Strand MA. The role of pharmacy in promoting public health: Pharmacy and public health in 2050. Journal of the American Pharmacists Association. 2025;65(1):102272. [Cited: 15 September 2025]. Available at: https://dx.doi.org/10.1016/j.japh.2024.102272.
12. Prasertsuk S KT. Proposed role and responsibilities of pharmacists in patient care at primary care level. Int J Pharm Sci. 2017;13 (Suppl):698-704. [Cited: 15 September 2025]. Available at: https://he01.tci-thaijo.org/index.php/IJPS/article/view/88609.
13. Atkin R ea. Pharmacy marketing for public health impact: Promoting preventive care and health literacy. World J Adv Res Rev. 2023;18(2):1406-18. [Cited: 15 September 2025]. Available at: https://wjarr.com/sites/default/files/WJARR-2023-0982.pdf.
14. Pantasri T. Expanded roles of community pharmacists in COVID-19: A scoping literature review. J Am Pharm Assoc (2003). 2022;62(3):649-57. [Cited: 15 September 2025]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC8704729/pdf/main.pdf.
15. Swinburne GJ. A health literacy education-focused intervention to improve community pharmacy universal precautions. Australia: Monash University; 2014.
16. Ciappara MA. Patient Empowerment in Pharmacy Practice. Malta: University of Malta; 2003.

17. Kelly DV, Bishop L, Young S et al. Pharmacist and physician views on collaborative practice: Findings from the community pharmaceutical care project. Can Pharm J (Ott). 2013;146(4):218-26. [Cited: 15 September 2025]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC3734911/pdf/10.1177_1715163513492642.pdf.
18. Patel PM, Essien UR, Happe L. Pharmacoequity measurement framework: A tool to reduce health disparities. J Manag Care Spec Pharm. 2025;31(2):214-24. [Cited: 15 September 2025]. Available at: https://pmc.ncbi.nlm.nih.gov/articles/pmid/39912813/.
19. Qato DM, Alexander GC, Chakraborty A et al. Association Between Pharmacy Closures and Adherence to Cardiovascular Medications Among Older US Adults. JAMA Network Open. 2019;2(4):e192606. [Cited: 15 September 2025]. Available at: https://dx.doi.org/10.1001/jamanetworkopen.2019.2606.
20. Guadamuz JS, Alexander GC, Zenk SN et al. Assessment of Pharmacy Closures in the United States From 2009 Through 2015. JAMA Intern Med. 2020;180(1):157-60. [Cited: 15 September 2025]. Available at: https://doi.org/10.1001/jamainternmed.2019.4588.
21. International Pharmaceutical Federation (FIP). Health Literacy Publications. The Hague: International Pharmaceutical Federation; updated [accessed: 15 September 2025]. Available at: https://equityrx.fip.org/health-literacy-publications/.
22. International Pharmaceutical Federation (FIP). Global pharmacy trends and implications for self-care: Report from a FIP insight board. The Hague: [Internet]. 2024. [Cited: 15 September 2025]. Available at: https://www.fip.org/file/6084.
23. International Pharmaceutical Federation (FIP). Health inclusivity, agency and empowerment: Developing solutions to help pharmacists drive better health outcomes: Report from an international insight board The Hague: [Internet]. 2023. [Cited: 15 September 2025]. Available at: https://www.fip.org/file/5535.
24. International Pharmaceutical Federation (FIP). Identifying pharmacy-led actions for improving health literacy: Report from an international advisory roundtable. The Hague: International Pharmaceutical Federation; 2023. updated [accessed: 15 September 2025]. Available at: https://www.fip.org/file/5533.
25. International Pharmaceutical Federation (FIP). Empowering self-care: A handbook for pharmacists. The Hague: International Pharmaceutical Federation; 2022. updated [accessed: 15 September 2025]. Available at: https://www.fip.org/file/5111.

Annex

Annex 1. Survey questions (individuals - pharmacists)

Estimated time: 10 minutes
Total questions: 9

1. Have you participated in any public health initiatives or patient education campaigns in the past year (e.g., vaccination, smoking cessation, antimicrobial stewardship, women's health, digital literacy, etc)

   ☐ Yes
   ☐ No

2. If yes, please indicate the number of initiatives you were involved in.
   ☐ 1 initiative
   ☐ 2-3 initiatives
   ☐ More than 3 initiatives

3. What types of public health initiatives have you participated in? (Select all that apply)
   ☐ Infectious diseases and vaccination
   ☐ Chronic disease management
   ☐ Medication safety and adherence
   ☐ Smoking cessation programme
   ☐ Mental health awareness
   ☐ Equitable access to healthcare and medicines
   ☐ Other (please specify)

4. Who initiated the campaign(s) you participated in? (Select all that apply)
   ☐ Ministry of Health / Government body
   ☐ National pharmacy association
   ☐ Employer / Workplace
   ☐ Self-initiated / Community-led
   ☐ Other (please specify)

5. Which challenges, if any, prevented you from engaging in public health initiatives? (Select up to 3)
   ☐ Lack of time to participate in campaigns
   ☐ Insufficient training on health promotion
   ☐ Limited institutional/employer support
   ☐ Lack of incentives or recognition
   ☐ Low public interest or uptake
   ☐ Not aware of such opportunities
   ☐ Other (please specify)

   Follow-up: Can you describe a specific challenge you have faced when trying to engage in health awareness campaigns?

6. In your opinion, how strongly do you agree or disagree with each of the following statements about public health campaigns in pharmacy practice?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
1. Integrating public health campaigns into daily pharmacy practice improves patient outcomes	☐	☐	☐	☐	☐
2. Integrating public health campaigns into daily pharmacy practice supports pharmacy business goals					
3. Public health campaigns help build and maintain public trust in pharmacists	☐	☐	☐	☐	☐
4. Pharmacists need additional training, resources, and support to effectively conduct public health campaigns	☐	☐	☐	☐	☐
5. Actively participating in public health campaigns should be a core responsibility of pharmacists	☐	☐	☐	☐	☐
6. I feel well-prepared and confident when delivering targeted health information to diverse or vulnerable patient populations	☐	☐	☐	☐	☐

7. Have you used any digital tools (e.g., apps, telepharmacy/telehealth platforms, mobile health monitoring apps, online educational content, or videos) as part of health literacy or patient education efforts?
   ☐ Yes – regularly
   ☐ Yes – occasionally
   ☐ No
   If yes, please provide an example and describe the tools used (e.g., WhatsApp, mobile apps, online webinars, e-leaflets, etc.)

8. What challenges do you encounter when integrating technology for health literacy improvement?
   ☐ Limited digital literacy among patients
   ☐ Time constraints in daily practice
   ☐ Insufficient training or technical support to integrate technology
   ☐ Inadequate access to digital infrastructure
   ☐ Privacy or security concerns
   ☐ Other (please specify)

9. What kind of support or training would enable you to play a stronger role in public health or health literacy activities?

Annex 2. Semi-structured interview (FIP member organisations)

Format: 20–30 min online interview
Interviewee: MO representative or regional leader familiar with workforce/public health activities
Interviewer: GPO team member or regional forum representative

1. In your country or region, how are pharmacists currently involved in public health awareness or patient education initiatives? Are these roles formally recognised or supported by policy or institutions?
2. Can you share any examples of successful pharmacist-led public health campaigns or health literacy activities?
   - Who led them (e.g., MO, government, universities)?
   - What made them effective?
3. What challenges or barriers have you observed in expanding pharmacists' engagement in health literacy or public health campaigns? Have there been any attempts to overcome these barriers?

4. What organisational structures, policies, or collaborations have successfully supported pharmacist-led health initiatives? How do you think FIP or other stakeholders could further help?
5. How are you seeing digital tools used (or not used) in patient education or outreach?
6. Where do you see the biggest opportunities for pharmacists to drive health literacy? What additional resources or training would be most valuable?
7. Has your organisation developed or endorsed any health literacy frameworks, standards, or training modules for pharmacists? If yes, could you share a copy or reference?

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