



COMMONWEALTH  
**PHARMACISTS**  
ASSOCIATION

# Pandemic preparedness and response

**The critical role of the pharmacist**

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## **Pandemic preparedness and response: the critical role of the pharmacist**

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## **About the Commonwealth Pharmacists Association**

The Commonwealth Pharmacists Association is the global membership body for both individual pharmacists and National Pharmacy Associations across the 56 countries of the Commonwealth, of which we are a formally Accredited Organisation. Since our founding in 1969, our work has helped educate, empower and equip hundreds of thousands of healthcare workers – including pharmacists, doctors and nurses – with the skills, knowledge and expertise they need to be leaders in the fight against emerging health threats like antibiotic resistance or non-communicable diseases. Our mission is to empower pharmacists to improve health and wellbeing throughout the Commonwealth.

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## Executive summary

This report presents compelling evidence of the vital role pharmacists play in pandemic preparedness and response, as illustrated through in-country case studies from across the Commonwealth during the COVID-19 pandemic. The report highlights the wide-ranging contributions pharmacists made in delivering essential frontline services, from ensuring sustainable medicine access and managing supply chains to administering vaccines, providing public health education, countering misinformation, supporting vulnerable communities, and ensuring continuity of care, often in the face of limited recognition and inadequate structural inclusion within healthcare systems.

Despite their frontline involvement, pharmacists remain underrepresented in national emergency plans and health policy frameworks. The COVID-19 pandemic revealed significant gaps in preparedness, both within and outside of the pharmacy sector, including underutilisation of the pharmacy workforce. Empowering pharmacists through targeted policy reform, sustained investment, workforce development, and structural integration is essential for building more resilient, equitable and community-responsive health systems capable of withstanding future pandemics.

The report concludes with clear, actionable recommendations to support the strategic integration of pharmacists into future health emergency preparedness and response efforts. Elevating the role of pharmacists is not only a matter of recognition but also a public health imperative for safeguarding global health security.

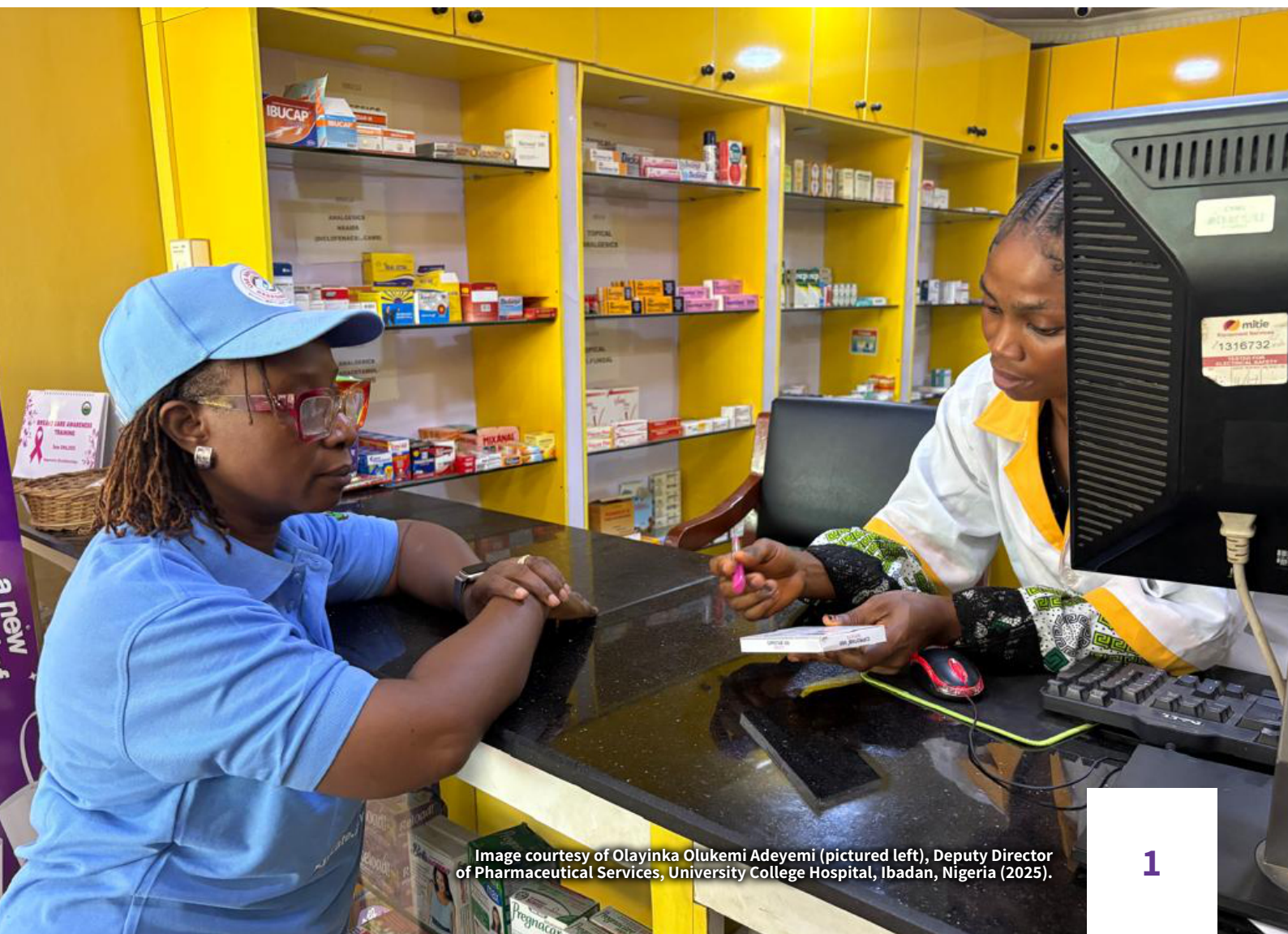


Image courtesy of Olayinka Olukemi Adeyemi (pictured left), Deputy Director of Pharmaceutical Services, University College Hospital, Ibadan, Nigeria (2025).



# Purpose of this report

This report seeks to inform global and national policy discussions and strengthen international collaboration between pharmacists and the health workforce to ensure they are recognised and empowered as key contributors to global health security through pandemic preparedness and response. By leveraging the lessons learned from the COVID-19 pandemic, the report aims to:

- Outline recommendations on how to empower and integrate pharmacists into future pandemic preparedness and response efforts, including collaborative work throughout the Commonwealth to strengthen and build resilience.
- Present country-specific case-studies from national pharmacy associations (NPAs) showcasing pharmacists' contributions to pandemic preparedness and response in different Commonwealth nations.
- Advocate for increased recognition and investment in the pharmacy workforce as a critical component of health system resilience.

## Introduction

### **A focus on pandemic preparedness – why is it important?**

One of the most significant health challenges we face today globally is the increasing threat of pandemics, which have the potential to disrupt healthcare systems, economies, and entire societies on an unprecedented scale. Contributing factors such as climate change, conflict, and displacement are altering disease patterns and exacerbating the emergence of new infectious threats [1]. These factors, alongside the rise of population density and antimicrobial resistance, are placing additional pressure on the global ecosystem, increasing the likelihood of infectious disease outbreaks becoming pandemics [2].

Pandemic preparedness refers to a continuous process of developing, exercising, implementing, and improving national and sub-national response plans to ensure an effective and timely response to health emergencies [3]. An effective pandemic preparedness strategy should be an integral part of a country's broader health security framework, enabling it to mitigate the impact of disease outbreaks, natural disasters and other public health threats. It is a critical and cost-effective investment in public health and societal well-being, strengthening the healthcare system's resilience and significantly improving patient outcomes during and after a crisis.

The COVID-19 pandemic exposed critical gaps in pandemic preparedness worldwide, highlighting the lack of coordinated response mechanisms, resource constraints, and the

disproportionate burden faced by the most vulnerable populations. Additionally, the pandemic showed that the financial cost of unpreparedness far outweighs the investment required for comprehensive pandemic readiness [4]. Moving forward, countries must prioritise building resilient, equitable health systems that can withstand future shocks while maintaining essential services and protecting the most vulnerable populations who are often at higher risk during health crises [5].

Beyond saving lives, a well-prepared health system reduces the transmission of infectious diseases, illnesses, and mortality while also safeguarding public health infrastructure, thereby mitigating impacts on healthcare systems and socioeconomic structures [6]. Pandemic preparedness is also inextricably linked to a healthcare system's resilience, which is defined as the capacity of health systems to proactively foresee, absorb, recover from, and adapt to shocks such as pandemics [7, 8]. A resilient healthcare system should be able to respond rapidly to a sudden surge in demand during a pandemic while maintaining essential health services. Beyond immediate health impact, pandemic preparedness offers broader economic and societal benefits, such as:

- **Social resilience:** Strengthened community engagement and trust-building aspects of pandemic preparedness enhance overall social resilience.
- **Resource optimisation:** Well-prepared and efficient health systems can maximise the use of resources during crises, averting health system collapse and ensuring efficient use of limited supplies.
- **Economic stability:** Effective preparedness mitigates the economic disruptions caused by pandemics, protecting livelihoods and national economies.

## The challenges around pandemic response and preparedness

Despite growing recognition of the importance of pandemic preparedness, significant gaps that threaten global health security remain. A Lancet's Health Policy paper published in 2022 [9] explores the role of universal health coverage (UHC) within the global health security architecture. It highlights the under-recognised role of UHC in mitigating outbreaks, as well as the importance of primary health care (PHC) in safeguarding communities from future health threats, ensuring health services are available, accessible, acceptable, and of high quality.

Additional challenges include ensuring the healthcare workforce is adequately trained and resourced to support health system strengthening and well-equipped to respond to unprecedented health threats. In addition, coordinating communication presents challenges such as the need to define clear roles and responsibilities, disseminating information, and bidirectional communication or feedback between stakeholders (e.g. health ministries, international organisations, private sector, civil society and representative organisations, non-governmental organisations, etc.). These limitations hinder our collective ability to prevent, detect, and respond to emerging health threats effectively.

## **Possible solutions – building resilient and equitable health and care systems for pandemic preparedness**

To overcome these challenges, pandemic preparedness must be grounded in a comprehensive, multi-sectoral approach. The World Health Organisation (WHO)'s Risk Communication and Community Engagement competency framework [4] outlines crucial activities before, during and after a public health emergency to support comprehensive and inclusive health emergency programmes that empower individuals and communities, including the most vulnerable, to make informed decisions to protect their health. This framework defines four interconnected pillars of health emergency preparedness: planning and coordination, risk communication and community engagement, health intelligence, and health interventions. The following solutions align with this framework, offering guidance on building a pandemic-resilient, inclusive and responsive healthcare system.

### **1. Planning and coordination**

- 1.1. Integration, coordination and partnership: Cross-sectoral partnerships, including civil society and the private sector, are imperative for a comprehensive pandemic response.
- 1.2. Flexibility and adaptability: Resilient health systems must be agile in response to evolving needs and adaptive to minimise disruption.
- 1.3. Workforce preparedness: Expanding and training the community health workforce is essential for providing the first line of defence during a pandemic.

### **2. Risk communication and community engagement**

- 2.1. Public trust and communication: Continuous and equitable access to PHC builds trust in local health workers, which is crucial for effective communication to combat misinformation during a pandemic.

### **3. Health Intelligence**

- 3.1. Early detection and response: Prepared systems can identify new pandemic cases quickly, supporting surveillance and containment efforts.
- 3.2. PHC and community services: A strong PHC system is fundamental to pandemic preparedness, as it provides continuous care, supports surveillance, and can be rapidly repurposed to distribute emergency countermeasures [11].

### **4. Health interventions**

- 4.1. Long-term health outcomes: By preventing and effectively managing underlying health conditions that increase the risk of severe disease and/or worse outcomes during a pandemic, pandemic preparedness contributes to improving overall population health.
- 4.2. Continuity of care: Well-prepared health systems can maintain essential health services and treatments during a pandemic, preventing a backsliding of health services as observed during COVID-19.



A significant part of building resilient health systems is strengthening the healthcare workforce. The PHC workforce, in which pharmacists play a key role, is an integral part of pandemic and emergency response. Pharmacists are positioned at the heart of communities, providing a crucial link between healthcare systems and the public. Their expertise in medicines and accessibility makes them a valuable asset in containing health emergencies.



# Pharmacists as pillars of pandemic preparedness and response: a strategic asset for resilient health systems

Pharmacists are embedded in the centre of communities and are well-placed to play a key role in pandemic awareness, preparedness and response. As frontline healthcare providers and trusted members of the community, they offer essential healthcare services with the unique capability to support public health efforts in various settings, including community, hospitals, clinics, and public health. Pharmacists are highly accessible healthcare professionals: 90% of Americans live within 5 miles of a community pharmacy [12], and in the UK, 95-100% of the population can reach one within 20 minutes, even in areas of high deprivation [13].

Pharmacists' contributions span various domains, from community education to direct patient care through medication expertise and support of broader healthcare systems. Their ability to adapt to situations enables them to collaborate with other healthcare professionals and manage both acute and chronic conditions, responding to the pandemic using their areas of expertise. Pharmacists have a uniquely detailed, extensive knowledge of medicines, and they have access to patient health information that is not specific to any one healthcare provider. This enables them to adopt a more holistic view of patient care, which is particularly important during a pandemic where the health system is disrupted. Their contributions to the COVID-19 pandemic response demonstrated the valuable support pharmacists offer in emergencies, including managing medication supplies, delivering testing for positive cases and vaccination programmes, providing community support and education, as well as addressing misinformation.

Beyond pandemics, the importance of pharmacists in emergency response is evident in other national crises. For instance, the Bhopal Gas Tragedy of 1984 in India exposed significant gaps in preparedness and coordination among healthcare professionals. Reports following the incident highlighted that the timely involvement of pharmacists - through offering guidance on medicine and antidote use, as well as ensuring continuity of supply - could have reduced the scale of harm. Such incidents are highly relevant to pandemic preparedness, illustrating how integrating pharmacists into emergency response teams enhances decision-making, accelerates the delivery of treatment to the public, and strengthens overall system resilience.

However, compared with other healthcare professionals such as doctors and nurses, the role of pharmacists in pandemic and emergency preparedness has often been under-recognised [14]. Following the COVID-19 pandemic, a multinational study assessing community pharmacists' pandemic preparedness and response found that the level of preparedness within the pharmacy sector was inadequate, indicating a need for better integration of pharmacists in emergency planning [15]. There is now an opportunity to build on the work of pharmacists during COVID-19 to increase resilience in pandemic preparedness and response. Key activities are highlighted below:

- **Expanded scope of practice:** In many regions, pharmacists' roles expanded to include prescribing for minor ailments and extending the period of supply for prescriptions.
- **Digital transformation:** The pandemic accelerated the adoption of electronic prescriptions, electronic dispensing, and virtual care models, such as **telepharmacy**.

- **Interprofessional collaboration:** Pharmacists worked more closely with other healthcare providers, strengthening their position within the healthcare system.
- **Pharmacovigilance:** Their role in monitoring and reporting adverse drug reactions grew even more critical, especially for off-label use of medications and new vaccinations during the pandemic.
- **Advocacy for equity:** Pharmacists advocated for equitable healthcare access and addressed disparities in medicine availability, particularly in vulnerable or marginalised populations.

Outlined below are the further activities and key roles pharmacists can play in pandemic preparedness and response.

### **Pandemic awareness: Pharmacists play an essential role in raising public awareness and providing guidance on pandemics**

- **Public health education and training:** Community pharmacists serve as an accessible source of reliable health information, educating the public on disease prevention, treatment and management, hygiene practices, and the safe and effective use of medicines. They can therefore increase public awareness towards pandemics such as COVID-19 [16].
- **Symptom triage:** Pharmacists can help identify potential risk cases by screening patients presenting with symptoms typical of the pandemic disease and referring them to appropriate care when necessary.
- **Awareness raising and combating misinformation:** Pharmacists play a key role in addressing public concerns and countering false claims, particularly regarding treatments and vaccines. They participate in public health campaigns and provide evidence-based advice on disease prevention and treatment [17].

### **Pandemic preparedness: Pharmacists contribute significantly to preparing for potential pandemics.**

- **Access to and safe use of pharmaceutical products:** Pharmacists ensure the availability of quality-assured medicines, personal protective equipment (PPE) and other critical resources. Their role is pivotal in managing drug shortages, stockpile management, strengthening medicines manufacturing systems and supply chains, and guiding the rational use of medicines during emergencies. They also have a key role in preventing the circulation of substandard and falsified medicines.



- **Research and development:** Pharmacists are critical contributors to pharmaceutical and medicines-outcome research, particularly in the development of antiviral medications, vaccines, and treatments for emerging diseases. They can lead pharmaco-epidemiological research, tracking medication use trends and health outcomes to identify any potential new adverse events, inequities in medication access, and pandemic outbreaks.
- **Training and education:** Pharmacists participate in ongoing professional development to stay updated on emerging health threats and response protocols. Incorporating modules on pandemic preparedness into pharmacy curricula and continuous professional development (CPD) programmes can enhance their readiness [18].
- **Emergency planning and cross-sector collaboration:** Pharmacists should be integrated into antimicrobial stewardship (AMS) initiatives, vaccination and other treatment programmes, infection prevention and control (IPC) strategies, and public health committees, to ensure comprehensive pandemic planning and response. They should act as core members and leaders of multidisciplinary teams and decision-making groups, collaborating with other healthcare providers and public health officials to develop and refine pandemic response strategies.
- **Vaccination readiness:** Pharmacists are prepared to administer treatments and vaccines, often serving as primary members of the immunisation workforce during mass vaccination campaigns. They are also vital in vaccine distribution, storage, administration, and advocacy. During the COVID-19 pandemic, many countries expanded pharmacists' roles to include vaccine administration and education, particularly in addressing vaccine hesitancy and misinformation.
- **IPC:** Pharmacists implement IPC measures in healthcare and community settings, including the supply of and education on the proper use of PPE, and the management of consumables, such as sterilisation supplies.

**Pandemic response:** During active pandemics, pharmacists' roles expand to meet urgent healthcare needs.

- **Medication management:** As accessible healthcare professionals, pharmacists provide direct patient care and ensure continuity of care by managing medication supplies, addressing shortages, and providing alternative therapy when necessary. During pandemics, pharmacists have adapted their method of delivering comprehensive medication management in community settings, including increased virtual or remote delivery and utilising new methods of retrieving patient information [19]. They also become the key health provider for patients to manage long-term conditions, particularly when the doctor or usual healthcare provider is not available.

- **Community engagement:** Pharmacists serve as trusted figures in communities, playing a central role in health promotion and disease prevention efforts. They act as health navigators in a leadership role and are a trusted source of health information. They often act as a first port of call for advice and can signpost patients to the relevant person/place for further support. For example, during the COVID-19 pandemic, pharmacists disseminated critical information on hygiene practices and social distancing measures [20].
- **Point-of-care testing:** Many pharmacists offer rapid diagnostic testing for conditions such as COVID-19 and influenza. This enables early detection, supports public health surveillance, reduces the burden on PHC providers, and allows for prompt patient counselling and follow-up.
- **Telehealth services:** Adapting to social distancing requirements, pharmacists have expanded the use of virtual consultations and remote medication counselling. These services ensure continuity of care while minimising infection risks and increasing access for patients in rural or underserved areas.
- **Vaccination administration:** As trained immunisers, pharmacists play a critical role in large-scale vaccination efforts. They help increase vaccination rates by offering convenient walk-in services, by their advocacy efforts, by addressing vaccine hesitancy and misinformation through education, and by managing cold chain logistics.
- **Supporting patients to manage their health:** As accessible healthcare professionals, pharmacists provide direct support to patients managing chronic diseases during pandemics. They support mental health through counselling services, as well as supporting vulnerable people and advocating for the patients' best interests.
- **Chronic disease management:** Pharmacists play a central role in managing ongoing health conditions such as diabetes, hypertension and asthma. By offering routine monitoring, medication adjustments and education, they reduce the strain on hospitals and clinics, especially when health systems are overwhelmed. In some countries, pharmacists are also permitted to prescribe, helping ensure continued management and care of long and short-term health conditions. They also address mental health concerns, supporting patients' overall well-being.
- **Compounding services:** In response to supply chain disruptions, pharmacists can prepare compounded medications and essential products such as hand sanitisers. These services ensure continuity of care when commercial products are unavailable, and help address localised needs.
- **Research and surveillance:** Pharmacists actively contribute to research initiatives during pandemics, helping to evaluate treatment efficacy, identify adverse drug reactions and monitor medication use outcomes. Their expertise supports evidence-based decision-making and contributes to the development of clinical guidelines.
- **Humanitarian work:** In displaced, low-resource, or underserved populations, pharmacists play a vital role in humanitarian efforts. They help deliver essential medicines, manage minor ailments, provide first aid, and ensure access to healthcare, in collaboration with local and international health organisations.

- **Technology and innovation:** Pharmacists are at the forefront of implementing digital tools and innovative practices to streamline healthcare delivery, including vaccination tracking systems, mobile health apps and electronic prescribing. They are well-positioned to identify barriers to care during pandemics, from community-level challenges to disruptions in medicine supply chains, and propose or adopt technology-based solutions to overcome these barriers.

**“Pharmacists have proven themselves to be essential contributors to the emergency healthcare response, not only for managing medications but also for providing frontline public health support.”**

Colicia Mingo  
President, Pharmaceutical Society of  
St. Vincent and the Grenadines

## Case studies

By examining real-world examples of pharmacists’ involvement during the COVID-19 pandemic, we can gain a deeper understanding of their crucial role in pandemic preparedness and response. The following country-specific case studies illustrate how pharmacists adapted services, collaborated with public health authorities and supported their communities across diverse settings throughout the crisis. These examples not only highlight key successes and challenges but also offer valuable lessons to inform future pandemic preparedness strategies and reinforce the role of pharmacists in responding to health emergencies such as COVID-19.





## Canada

**Helen Loverdos**  
**Canadian Pharmacists Association**

### **Background**

In April 2021, Canada intensified its COVID-19 vaccination rollout. At the time, the country's extensive pharmacy network comprised nearly 11,000 stores nationwide; however, they were only selectively included in the initial rollout of vaccinations. The underutilisation of pharmacies was most prominent in major urban centres such as Toronto, London, and Victoria, where long queues formed at public clinics and community pharmacies remained on the sidelines. A national survey revealed that 43% of Canadians preferred to be vaccinated at their local pharmacy, compared to 42% who preferred physicians' offices and 14% who preferred public health clinics[22]. Pharmacists had more than enough capacity to deliver large-scale immunisation programmes, but access to COVID-19 vaccines through pharmacies was restricted in several provinces.

### **Pharmacists' role**

Throughout the pandemic, pharmacists across Canada were prepared and willing to step into a more central role in vaccine distribution, in addition to their existing roles in prevention, raising awareness, supporting medicine access, and distribution. The Canadian Pharmacists Association consistently advocated for the broader inclusion of pharmacies in the vaccine rollout, urging federal and provincial governments to expand access to vaccines and increase the number of authorised pharmacy sites. Logistical barriers were in place in provinces such as Ontario and British Columbia, restricting the full mobilisation of pharmacy-based vaccination services. Ontario and British Columbia supplied their eligible pharmacies with the AstraZeneca vaccine only, leading to age restrictions being imposed due to supply issues at the time. On the other hand, pharmacies in provinces such as Alberta, Nova Scotia, New Brunswick, and Quebec had access to all three major vaccines, therefore enabling them to vaccinate a wider segment of the population. There were also fears of vaccine wastage, and multiple restrictions based on patients' ages and risk profiles had further hindered the rollout. Some pharmacists were frustrated by the limitations of the pilot programme, which prioritised larger, chain pharmacies rather than independent ones.

### **Key learnings from COVID-19**

Pharmacists can play a vital role in public health efforts, particularly in providing accessible, community-based services like vaccination. While pharmacies played a key role in the influenza vaccination campaigns and already had the infrastructure and public trust in place to scale up quickly, their early exclusion from the COVID-19 vaccine rollout uncovered gaps in policy coordination and pandemic preparedness. COVID-19 revealed the impact of logistical barriers in certain states; in future pandemics, equal supplies and equity of access should be ensured.

For future responses, pharmacists must be fully integrated into national and provincial emergency immunisation strategies, with clear roles, adequate supply chains, and streamlined regulatory processes. The patient-friendly nature of pharmacies offers an effective way to reach large populations quickly and effectively. Canada's uneven rollout also suggests that the broader inclusion of pharmacists in decision-making and planning can improve both access and outcomes in future public health crises.

# Ghana

**Kwabena Asante Offei**  
**Vice-President, Commonwealth Pharmacists Association**  
**Pharmaceutical Society of Ghana**

## Background

Consistent with other nations, Ghana faced the challenge of mitigating the spread of COVID-19 whilst ensuring the continued provision of essential healthcare services. With a healthcare system already constrained by limited infrastructure, workforce shortages, and a high dependence on imported pharmaceuticals, the pandemic threatened this provision. The pandemic put pharmacists at the forefront of the response, ensuring uninterrupted access to medicines and providing essential public health services. The Pharmaceutical Society of Ghana (PSGH) played a pivotal role as a key institutional actor during COVID-19, leading policy and advocacy, coordinating national pharmacy responses, and supporting the government's broader pandemic strategy.

The specific contributions of Ghanaian pharmacists during COVID-19 have been underrecognised. However, a paper by PSGH aimed to address this gap by exploring pharmacists' contributions to public health education, medication supply chain management, testing and diagnosis support, vaccine administration, and patient-centred care during the pandemic[30]. This case study draws on key insights from the paper.

## Pharmacists' role

Pharmacists in Ghana responded promptly to the challenges posed by the COVID-19 pandemic, ensuring uninterrupted healthcare delivery. Pharmacist-led interventions proved crucial in protecting the public's health.

## Policy Leadership and Advocacy

The PSGH played a central role in shaping Ghana's national COVID-19 response. It collaborated with the Ministry of Health and expert committees to develop treatment guidelines, reviewed international pharmaceutical recommendations, and submitted critical inputs to the National Technical Working Group. Through strong representation at the national level, the PSGH advocated for policies that recognise and harness pharmacists' expertise in pandemic response. Pharmacists were granted an expanded scope of practice, including authorisation to administer vaccines, substantially increasing the national immunisation workforce. PSGH also supported the development of national guidelines for vaccination and the use of antigen rapid tests in community pharmacies.

## Ensuring Medicine Availability and Supply Chain Resilience

Throughout the pandemic, pharmacists worked to maintain medicine availability despite global supply chain disruptions. Pharmacists managed drug shortages, sourced essential supplies, and contributed to procurement strategies while PSGH mobilised PPE items for health workers and community pharmacies.

## **Public Health Education and Risk Communication**

Pharmacists served as trusted information sources during a period of widespread misinformation. They provided accurate education, clarified misconceptions, and promoted evidence-based practices through community outreach (including engagements in churches, schools, community durbars, mosques, bus stations, social media, and TV/radio programmes). Over 2,000 pharmacists were trained through national webinars, and thousands of educational materials and visual aids were distributed nationwide. Pharmacists' credibility and accessibility meant that they were well-positioned to combat infodemics and address vaccine hesitancy; their trusted position facilitated a direct line of communication between healthcare professionals and the public.

## **Frontline Clinical Services**

Community pharmacists remained fully operational during lockdowns, offering consultations, triaging symptomatic patients, and providing referral and screening services. They supplied high-demand products such as disinfectants and PPE while promoting adherence to safety protocols.

Hospital pharmacists contributed to patient care through participation in clinical rounds, optimising medication regimens, managing critical drug shortages, and developing local treatment protocols. They also served as antimicrobial stewards, ensuring rational use of medications against evolving treatment guidelines.

## **Testing and Vaccination Support**

Pharmacists supported screening, testing, and community-level surveillance. They were granted legal authorisation to participate in vaccine deployment, significantly expanding national reach. They reinforced public trust in vaccination programmes by addressing fears, misinformation, and hesitancy.

## **Key learnings from COVID-19**

The COVID-19 pandemic revealed weaknesses in Ghana's healthcare infrastructure, underscoring the need for stronger, more resilient systems. However, it also revealed pharmacists' role as essential frontline responders due to their accessibility, adaptability, and ability to maintain uninterrupted care. Additionally, the leadership from PSGH highlighted the importance of strong pharmacy leadership in national health emergencies. Collaboration between stakeholders strengthened crisis response by sustaining medicine supplies, supporting testing efforts and influencing public health policies. Lessons from pharmacists' experiences should guide long-term strategies which strengthen health systems against future pandemics.

## **Recommendations for Future Preparedness**

The COVID-19 pandemic emphasised the need for a collaborative and well-prepared pharmaceutical sector to safeguard public health in Ghana. Based on the lessons learned from COVID-19, the following outlines key recommendations for future preparedness:

- Strengthen local pharmaceutical and vaccine manufacturing to reduce reliance on global supply chains and ensure equitable access throughout emergencies.



- Institutionalise pharmacists' expanded responsibilities, including vaccination, testing, and emergency response roles, supported by clear policies and legal frameworks.
- Invest in pharmacy workforce development, providing continuous training in outbreak management, digital tools, and advanced pharmaceutical care.
- Enhance national risk communication systems, employing pharmacists as community educators and developing robust anti-misinformation strategies.
- Accelerate integration of digital health technologies, including telepharmacy, AI-driven supply chain analytics, and interoperable electronic health records.
- Strengthen health infrastructure and surveillance systems, ensuring pharmacy facilities are included in emergency preparedness planning.
- Support sustained collaboration between PSGH, government agencies, academic institutions, and international partners to create a coordinated and resilient pharmaceutical sector.

## Malaysia

**Datuk Nancy Ho JP FCPA,  
Former President, Malaysian Pharmacists Society**

### Background

Malaysia experienced significant COVID-19 outbreaks that began with a large religious gathering in Kuala Lumpur in February 2020, followed by another wave after state elections in Sabah later that year. Home to 32 million people and approximately 16,000 pharmacists, the country implemented the Movement Control Order (MCO) as a major public health measure to reduce COVID-19 transmission. The MCO involved varying levels of lockdown and testing, which were adjusted according to the number of confirmed COVID-19 cases.

### Pharmacists' role

Pharmacists remained operational throughout the pandemic, ensuring public access to essential products such as masks, sanitisers, and gloves. They utilised multiple online channels, such as social media and webinars, to educate the public on correct PPE usage, hygiene practices, and healthy living systems to strengthen public immunity. The pandemic also presented new opportunities for pharmacists, including the development of educational videos which promoted their role, with a focus on the community sector. Community pharmacists were the most accessible healthcare providers when hospitals and clinics were overwhelmed, playing a frontline role in continuity of care.

Professional pharmacy bodies led initiatives to donate PPE and to spread accurate information on COVID-19 safety measures, also collaborating with the Ministry of Health to develop standard operating procedures (SOPs) for safe pharmacy operations, as well as providing professional input on medicines, vaccines, and prevention measures in media briefings. The pharmacists also advocated for immunisation: although they were not authorised to administer COVID-19 vaccines, their advocacy efforts helped to build public trust and increase vaccination rates.

## **Key learnings from COVID-19**

The pandemic demonstrated how essential pharmacists are to Malaysia's health system, not only in maintaining access to medicines and protective equipment, but also in providing patients with trusted, timely health information. They are easily accessible and embedded within the community, which means that they could quickly address concerns and correct misconceptions. At the same time, the decision not to involve pharmacists directly in vaccine administration limited the country's capacity to accelerate immunisation (two years later, from February 2022, they were included in COVID-19 vaccination efforts). Looking ahead, expanding pharmacists' scope of practice and embedding them more formally into pandemic preparedness frameworks will be key to ensuring a faster, more coordinated response in future crises.

## **Malta**

**Mary Anne Ciappara FCPA**  
**Council Member, Malta Chamber of Pharmacists**  
**Immediate Past President, Commonwealth Pharmacists Association**

### **Background**

The COVID-19 pandemic prompted the Malta Chamber of Pharmacists to take a leading role in safeguarding pharmacists, patients, and communities by working closely with authorities, key stakeholders and international affiliations, including the Commonwealth Pharmacists Association (CPA). From January 2020, the Chamber gathered insights on the coronavirus, participated in official seminars (organised by the Malta Medicines Authority) alongside other healthcare professionals, and began issuing guidance to pharmacists. Following Malta's first COVID-19 case on 7 March 2020, the Chamber supported community pharmacists, collectively and individually, by providing timely guidance updates, public/personal safety protocols, and by lobbying authorities to protect and safeguard pharmacists. They ensured coordination of the vaccination of community pharmacists and their staff, alongside other frontline healthcare professionals.

The Chamber ensured uninterrupted access to medicines by working with key stakeholders, including the Medicines Authority, the Superintendent of Public Health, and the Pharmacy of Your Choice (POYC) unit.

Through POYC, the Chamber issued directives and protocols offering a National Health Scheme service, which authorised pharmacists to repeat dispense/prescribe medicines via a digital system, reducing reliance on doctors' prescriptions and streamlining supply. The Chamber also addressed medicine access issues, liaising with authorities to ensure the uninterrupted supply of medicines and minimise shortages, as well as advocating for the best interests of society as the government managed and responded to the pandemic. Malta achieved one of the highest COVID-19 vaccination rates globally [21], with approximately 258 doses administered per 100 people [22].

## **Pharmacists' role**

Community pharmacists in Malta were at the forefront of providing uninterrupted pharmaceutical service during the pandemic, including access to medicines. They sourced medicines, masks, and sanitisers while advising the public on infection prevention, and alleviated public anxiety by providing accurate and up-to-date information on COVID-19 and vaccines. They promoted vaccination, addressed vaccine misinformation and hesitancy, and also provided home delivery services for vulnerable patients through collaborations with POYC, wardens, and students in line with the Chamber's SOPs.

Pharmacists adopted digital practices, including paperless prescriptions, and some offered point-of-care rapid antigen testing. They also engaged in CPD, including the Chamber's first digital event, 'Pharmacist Driven Life-Course Vaccination', which featured vaccination competency sessions and the European Resuscitation Council-certified Hands-On Basic Life Support/Automated External Defibrillator course.

## **Key learnings from COVID-19**

The COVID-19 pandemic highlighted the importance of pandemic preparedness on a global scale and underscored the pharmacy profession's resilience, adaptability, and responsibility in Malta. The leadership of the Malta Chamber of Pharmacists, along with the commitment and competence of pharmacists, ensured an uninterrupted medicines supply, supported expanded roles in vaccination, and acquired repeat prescribing authority. Pharmacists' trusted presence in communities was pivotal in addressing misconceptions and misinformation, and promoting vaccination uptake, thus contributing to the overall success of the COVID-19 response in Malta.

A lasting outcome is the Chamber's drive to consolidate pharmacist prescribing and introduce pharmacist-led vaccination in the community, which is being discussed with the authorities. The Malta Chamber of Pharmacists' leadership, collaboration and communication with authorities, stakeholders and its affiliations, including CPA, serves as a valuable model for future pandemic preparedness.

## St. Lucia

**Crystal John**

**Vice-President, Pharmaceutical Association of Saint Lucia Inc.**

### **Background**

During the COVID-19 Pandemic, the Pharmaceutical Association of Saint Lucia Inc. (PASLinc.) was required to mobilise quickly to safeguard pharmacists and the public. They acted quickly following the country's first confirmed case of COVID-19 and initiated several measures to protect the public, while supporting the national rollout of vaccines. Pharmacists played a central role in facilitating equitable access to vaccines and ensured the safe delivery of health services in line with the COVID-19 Vaccines Global Access targets.

### **Pharmacists' role**

Pharmacists in Saint Lucia helped reduce virus transmission by implementing innovative approaches. This included allowing patients to virtually submit their prescriptions via WhatsApp or via physical drop-off boxes, minimising face-to-face contact whilst ensuring continued care. To deliver essential medicines, the emergency guidelines provided through the country's Pharmacy Council authorised pharmacists to dispense 30-day supplies of patients' medications without immediate prescriber authorisation. This flexibility from pharmacists and regulatory bodies during the emergency enabled both enhanced medicine access and patient safety at the same time.

To curb virus transmission before vaccine rollout, pharmacists implemented community-level IPC measures. They promoted social distancing, proper mask-wearing education, and hand hygiene promotion in line with PASLinc. guidelines. By being embedded in communities and through their trusted relationships with patients, pharmacists were ideally placed to convey important public health guidance and messages. CPD also began to take place online, with PASLinc. and the Ministry of Health, Wellness and Elderly Affairs providing virtual learning opportunities and WHO-supported training through the Pan American Health Organization and the Pan Caribbean Partnership Against HIV/AIDS. This provided pharmacists with updated knowledge on COVID-19 transmission, vaccine safety, PPE use, and patient communication to support patients during the pandemic.

### **Key learnings from COVID-19**

The pandemic response in Saint Lucia was shaped by strong collaboration between pharmacy organisations and public health authorities. PASLinc worked closely with the Ministry of Health, Wellness and Elderly Affairs to develop protocols and public communication strategies, which evolved into a more coordinated national response, emphasising the importance of involving pharmacists in health system planning and decision-making. The actions taken by pharmacists became more visible during the pandemic, which strengthened their recognition as frontline healthcare providers and showed their capability to take on expanded roles.



# St. Vincent and the Grenadines

**Colicia Mingo**

**President, St. Vincent and the Grenadines Pharmaceutical Association Inc.**

## Background

In April 2021, Saint Vincent and the Grenadines faced two simultaneous public health emergencies: the ongoing COVID-19 pandemic and the sudden eruption of La Soufrière volcano. Within hours, volcanic ash covered large areas of the island, disrupting access to clean water, shelter, and healthcare. Amid this crisis, national authorities advised that only “essential workers and first responders” were to report to duty. At the time, pharmacists played a critical role in the national COVID-19 response, assisting in medication access and the distribution of PPE, but their status as essential healthcare workers remained ambiguous.



Top left: Senior Pharmacist and current PSVG Inc. President, Colicia Mingo, in personal protective equipment at Sion Hill Clinic.

Bottom left: Colicia Mingo's boots covered in ash at Barrouallie Health Centre.

Right: Barrouallie Health Centre covered in ash.

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## Pharmacists' role

Despite the uncertainty, public/government sector pharmacists mobilised quickly under the coordination of the Pharmaceutical Services department of the Ministry of Health, Wellness and the Environment. A multidisciplinary team of pharmacists and pharmacy technicians was deployed to the shelters and safe zones with the authorisation of the National Emergency Management Organisation. Their work focused on continuity of care for displaced patients with chronic conditions such as hypertension, diabetes, asthma, and mental illness. Pharmacists conducted medication reviews through interviews and, when patients were unable to provide their medical history, gathered information from patients' remaining medication packages. Medications were then prepared at government pharmacies and sent out to shelters. Pharmacists also distributed essential medicines such as oral rehydration salts to prevent illness, particularly among children and the elderly. Their roles eventually expanded throughout the ongoing pandemic response, with increased clinic days in rural health centres to serve the displaced population more effectively.

## Key learnings from COVID-19

Pharmacists have proven themselves to be essential contributors to the emergency healthcare response, not only for managing medications but also for providing frontline public health support. They were able to adapt quickly and respond flexibly under the pressure of the COVID-19 pandemic and volcanic eruption. The initial uncertainty around the role of pharmacists exemplifies the need for clearer health policies and the integration of pharmacists into national emergency planning. Including them in emergency preparedness protocols and training them to equip them for disaster response are the next steps for the future. The mobile model of pharmacy care used in Saint Vincent and the Grenadines could be replicated for other settings and future emergencies.

**“Expanding pharmacists’ scope of practice and embedding them more formally into pandemic preparedness frameworks will be key to ensuring a faster, more coordinated response in future crises.”**

Datuk Nancy Ho JP FCPA  
Former President, Malaysian Pharmacists Society

# Zimbabwe

**Gift T. Chareka**  
**President, Pharmaceutical Society of Zimbabwe**

## Background

The COVID-19 pandemic underscored the dual capacity and vulnerability of the Zimbabwean pharmaceutical sector. Pharmacists, particularly in community settings, were an accessible and essential frontline workforce, successfully maintaining continuity of care, leading public health education, and countering misinformation. However, their potential was underutilised due to restrictive legal frameworks that prevented their formal integration into national response teams and advisory boards. Concurrently, the domestic manufacturing sector's over-reliance on imported active pharmaceutical ingredients (APIs) exposed a critical national supply chain vulnerability[27].

Zimbabwe confirmed its first COVID-19 case in March 2020. The response included nationwide curfews and public health interventions, before vaccine rollout began in February 2021, using donated vaccines and initially prioritising essential health workers.

The local manufacturing sector consists of a small number of companies primarily focused on producing finished products and a near-total dependency on imported APIs. This structure created immediate and severe constraints during the global crisis, exacerbated by foreign currency shortages[28]. The lack of indigenous vaccine manufacturing capacity was a critical operational gap[29].

## Pharmacists' role

### Community Pharmacists' Frontline Role

Community pharmacists were indispensable as essential service providers, remaining highly accessible throughout lockdowns. Their core functions included:

- **Public health and education:** Serving as key information providers on IPCI measures, they were central in tackling widespread misinformation (e.g., about chloroquine and vaccine safety, speed of development, fertility risks) and disseminating accurate, evidence-based information, often using fact cards provided by the Pharmaceutical Society of Zimbabwe (PSZ).
- **Continuity of care:** Pharmacists collaborated closely with doctors, often via electronic prescriptions, to ensure patients with chronic diseases had uninterrupted access to essential medications, thereby relieving pressure on hospitals.
- **Supply management:** Pharmacists played an instrumental role in maintaining stocks of PPE, sanitisers, vitamins, and essential medicines despite the challenges posed by global supply chain disruptions, panic buying, and foreign currency difficulties.

## Pharmaceutical Manufacturing

The manufacturing sector faced severe operational turbulence, but demonstrated resilience and adaptability:

- **Operational adaptation:** Manufacturers increased capacity by establishing new production sites and expediting the registration of necessary products, showing a willingness to respond to the crisis.
- **Logistical challenges:** The experience confirmed that reliance on imported APIs and raw materials is the sector's single greatest systemic risk.

## Key learnings from COVID-19

The pandemic exposed systemic legislative and structural issues which prevent the full realisation of the pharmacist's role.

### Legislative and Integration Barriers

Exclusion from response teams: Pharmacists were not formally embedded within the national COVID-19 response teams or coordination mechanisms, limiting their ability to influence policy decisions on triage, supply chain, and public information strategy.

Restrictive scope of practice: Despite being identified as an ideal workforce for mass vaccination, the implementation stalled due to legislative and governance barriers. Existing frameworks favoured medical doctors over pharmacists, preventing community pharmacies from becoming vaccination sites and barring pharmacists from administering vaccines directly.

### Supply Chain Fragility

The over-reliance on external supply chains for finished products and APIs led to immediate constraints due to export restrictions, border closures, and a national foreign currency shortage crisis. This dependency constitutes a national security vulnerability for health systems.

## Recommendations for Future Preparedness

Based on the lessons learned, the PSZ puts forward the following recommendations for consideration:

1. Formal integration and legislation
  - 1.1. Legislative reform for scope of practice – amend existing legal frameworks to formally grant pharmacists the authority to inject and vaccinate, enabling mass immunisation campaigns and relieving the burden on public health facilities during emergencies.
  - 1.2. Formal inclusion in advisory bodies – mandate the formal integration of PSZ representatives and pharmacists into all national emergency response teams, technical advisory boards, and policy-making committees for future health emergencies.

## 2. Pharmaceutical supply security

- 2.1. Strategic investment in API manufacturing – prioritise and strategically invest in local API production to minimise import dependency and achieve greater pharmaceutical self-reliance.
- 2.2. Regional and national stockpiling – institute efficient, transparent systems for strategic stockpiling and buffer stocks of essential medicines, raw materials, and PPE to mitigate the impact of global supply shocks.

## 3. Operational standards and training

- 3.1. Mandatory disaster and emergency training – incorporate standardised, mandatory disaster planning, public health emergency response, and risk communication modules into both undergraduate pharmacy curricula and CPD.
- 3.2. Digital transformation – accelerate the adoption of electronic prescribing and dispensing systems across the country to improve record-keeping, streamline logistics, and reduce infection risk from physical paper handling.

Zimbabwe's experience demonstrates that pharmacists are a vital, accessible, and largely untapped resource for pandemic preparedness and response. By addressing current legislative constraints and simultaneously investing in pharmaceutical manufacturing autonomy, Zimbabwe can build a resilient, equitable health system capable of effectively meeting the challenges of future health emergencies. The PSZ looks forward to collaborating with CPA to advocate for these necessary changes across the Commonwealth.

## Summary and Recommendations

This report underscores the critical yet often under-recognised role of pharmacists in pandemic preparedness and response. Drawing on insights from the COVID-19 pandemic and case studies from across the Commonwealth, the report demonstrates that pharmacists are indispensable to strengthening health system resilience and ensuring effective emergency response.

During the pandemic, pharmacists rapidly adapted to evolving needs, playing central roles in vaccine administration, ensuring continuity of medicine supply and access, supporting IPC, countering misinformation, and safeguarding the health of vulnerable populations. Their responsiveness and accessibility make them a critical component of frontline public health infrastructure.

Despite their proven contributions, pharmacists remain underrepresented in national emergency frameworks and decision-making processes. To address these systemic gaps and fully leverage the potential of pharmacists in future health crises, this report calls for the following priority actions:

**Stronger advocacy for integration:** Champion the formal inclusion of pharmacists in pandemic preparedness and response planning at all levels (local, national, and international) using robust evidence. This includes active leadership and supporting roles in multidisciplinary emergency response teams, task forces, and policymaking committees.

**Policy development and reform:** Develop and implement national and international evidence-based policies and guidelines that clearly define, expand, and institutionalise the role of pharmacists in public health emergencies.

**Capacity-building and workforce resilience:** Establish dedicated training programs to equip pharmacists with skills in vaccine delivery, AMS and IPC, risk communication, and disaster management, ensuring they are prepared to respond swiftly and effectively.

**Investment in infrastructure and innovation:** Strengthen digital health tools, data-sharing platforms, and supply chain systems to enable pharmacists to work at the top of their scope and maintain continuity of care in crisis settings.

**Empowering pharmacists is not optional - it is essential.** A resilient, equitable, and community-based health system must fully harness the capabilities of pharmacists as trusted, accessible, and highly skilled healthcare providers. Integrating pharmacists into emergency preparedness and response strategies is a strategic imperative for safeguarding global health security in the face of future pandemics and health threats.



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# Pandemic preparedness and response

The critical role of the pharmacist



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