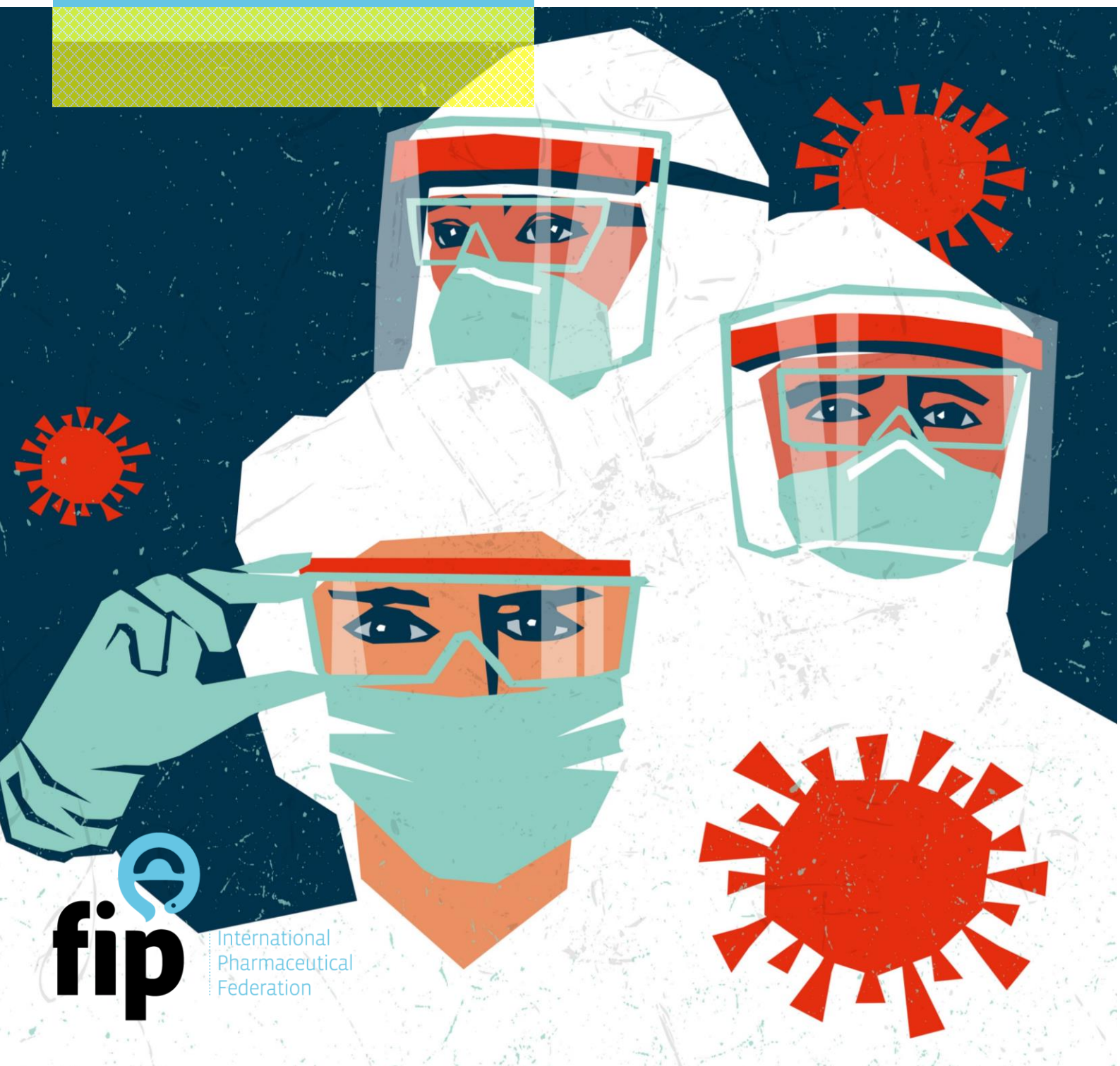


The global response of pharmacy to the pandemic

The contribution of the profession to COVID-19

October 2022



International
Pharmaceutical
Federation

Colophon

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About this report

This report describes the response of our pharmacy profession globally during the COVID-19 pandemic as it unfolded, in two ways: (1) by providing an overview of FIP's own response to support the profession globally; and (2) by sharing data, best practices and shared lessons collected from our members worldwide on how they responded on a national level.

This report is the result of more than 30 months of tracking, collating and monitoring pharmacy's response since the pandemic was viewed as a public health concern in early 2020.

In 2021, we began tracking and collating our own key outputs and responses since 2020. At around the same time, throughout 2021 and 2022, we distributed a survey to better understand the outputs and responses of our member organisations around the world.

The combined results have been compiled into this document to summarise FIP's efforts and initiatives that continue to support the profession, and showcase global best practices and shared lessons.

The aim of this compilation of pharmacy's global response to the pandemic is to both learn from each other about how the profession responded to COVID-19 and to inform future pandemic preparedness, response and recovery.

Foreword

One of the guiding principles of FIP is to respond during uncertain times, to continue to steer, support and represent the pharmacy profession and to lead our member organisations worldwide. The COVID-19 pandemic has taught us to learn to adapt to the circumstances the world puts us in, not only as an organisation but the profession, as a whole.

FIP recognises not only the importance of developing the profession, but also the complexity of balancing the delivery of present's emergent and urgent needs with future goals, while trying to harness the opportunities presented from immediate difficulties.

As we pass the thousandth day FIP since the World Health Organization (WHO) declared the COVID-19 outbreak as a public health emergency on 30 January 2020, we take the opportunity to mark this event and present this global report of pharmacy's response to the COVID-19 pandemic. This report will inform and partner our forthcoming report to support preparedness to future pandemics.

Supporting our members through the COVID-19 pandemic quickly became a core priority for FIP. This report describes the key pillars that underpinned our own response and how we navigated to continue to serve our members:

1. Supporting international solidarity and our members;
2. Advocating and showcasing the impact of the pharmacy profession in responding to pandemic;
3. Gathering data, evidence and innovation; and
4. Adapting our business and ways of working.

In addition to our own response, we strove to understand the response from pharmacy leadership bodies to their nation's needs. The report describes the response from a sample organisations' responses and in-depth case studies of selected initiatives.

This report serves as a repository and a tool, taking stock of the continued and changing response, over the period of 1,000 days, across 10 blocks of 100 days which showcases the professions and our members' commitment to patients and the public. We want to share practices and responses from around the world to inform the response and future preparedness. As we work our way out of the pandemic, we will provide more tools and guidance to our members on better future response, preparedness and continued recovery.



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FIP wishes to thank our member organisations for their contribution to this study. The list of member organisations that responded to the survey invitation can be seen in Annex 1.

FIP acknowledges the support from Rúben Viegas (FIP Practice Development Projects Coordinator) who supported in translating the survey to Spanish. FIP thanks the FIP lead for data and intelligence, Christopher John for his support on the survey draft; and Head of Corporate Communications & Advocacy, Lin-Nam Wang for her input into the report. FIP Programme team regional account holders for their support in the dissemination of the survey.

FIP is grateful for the commitment and dedication of all the members of the FIP Guidance on COVID-19 Taskforce [Annex 2], and the FIP COVID-19 Global Expert Advisory Group [Annex 3].

1 The FIP response to COVID-19: Supporting our members through the pandemic

1.1 Introduction

On the 30th January 2020, the World Health Organization (WHO) announced the outbreak of the new coronavirus as a Public Health Emergency of International Concern. Thereafter, COVID-19 was declared a pandemic on 11 March 2020. As we find ourselves in October 2022, heading towards the 4th anniversary of the Astana Declaration in October 2018, we all realise that pandemics impact us all acutely and then, as the threat from the pandemic recedes, the subsequent health need is exposed with repercussions for all our health systems and nations.

During this pandemic, we have seen rapid advances in vaccine development, treatment initiation and repurposing and viral testing programmes as well as prevention strategies. Our capacity to react to future health disasters and pandemics remains unknown and frankly anxiety-inducing. We know we must secure preparedness for the challenges to come, including ensuring preparing our pharmacy workforce and infrastructure can serve well when needed. This will require clear strategy, clear vision and a clear roadmap for the decade ahead.

As FIP continues to advocate for pharmacists' roles during COVID-19 and beyond, we must reflect on how we reacted to the pandemic, what went well, and what we should do better. This section lays out FIP's response to the pandemic, and builds on previous summaries.¹ As the global body representing pharmacists, pharmaceutical scientists and pharmacy educators, it was an imperative that we played a prominent and important role in supporting the pharmacy profession.

From the first days of the COVID-19 outbreak to the announcement it was a variant concern and thereafter a pandemic, FIP sought to support and enable the profession and its response to this pandemic in multiple ways. Initially, we sought to gather global expertise, support international solidarity within and across our profession, and support timely action within nations.

We developed activities that included providing evidence-based technical and professional guidance to our members and the entire profession and advocating for pharmacy scientists, pharmacists and pharmaceutical educators to contribute to the profession, ensure their safety and be recognised appropriately. Our response strategy can be categorised into ten themes, and these themes are gathered into four broad strategic response areas (see Figure 1). The four broad response areas are:

- A. Supporting international solidarity and our members.
- B. Advocating and showcasing the impact of the pharmacy profession in responding to pandemic.
- C. Gathering data, evidence and innovation.
- D. Adapting our business and ways of working.

The 10 themes:

1. Creating a global knowledge base – a FIP COVID-19 Hub.
2. Gathering global expertise through the FIP COVID-19 Expert Advisory Group.
3. Establishing the FIP pandemic preparedness programme.
4. Strengthening FIP advocacy for pharmacy-based vaccination delivery.
5. Supporting the pharmacy workforce with professional and technical guidance.
6. Gathering data, evidence and best practices.
7. Adapting our ways of working.

8. Re-designing our membership engagement strategy.
9. Strengthening our partnerships and working with others.
10. Delivering FIP COVID-19 digital programmes.

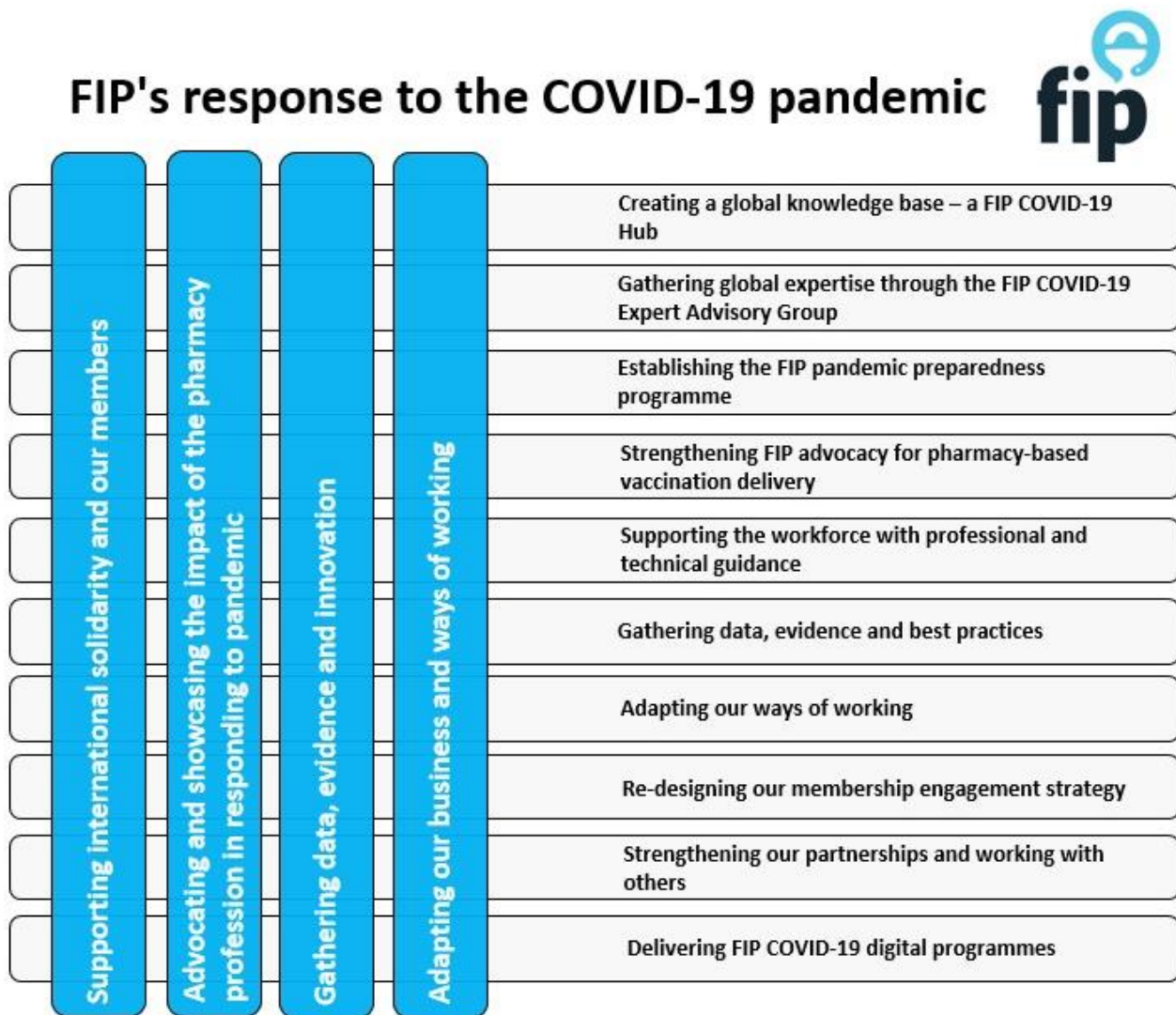


Figure 1 : FIP's response to COVID-19: Ten themes across four response areas

1.2 The FIP response themes

1.2.1 Creating a global knowledge base – a FIP COVID-19 Hub

FIP values sharing experiences, exchanging information and knowledge and solving global problems in solidarity. Therefore, in March 2020, FIP created a repository² of global resources to obtain information related to COVID-19.

The FIP [COVID-19 hub](#) included initiatives shared by our member organisations and other pharmaceutical professional and scientific bodies to support patients, health systems, and society during this pandemic.

This repository also contained information from the WHO and other organisations and relevant articles that may inspire and enlighten local action.

Following the set up of the FIP COVID-19 hub in April 2020, FIP provided a set of web based support tools and communication. A Facebook group was set up to facilitate international dialogue related to the COVID-19 crisis and pharmacy.

This group was open to the entire profession, FIP members and beyond, and gave space to connect with peers across the globe on coronavirus/COVID19. We hosted the best available pharmacological evidence during the pandemic. Over 30,000 Facebook users joined in two days, which highlighted the need at that time for an exchange platform for international solidarity.

The FIP COVID-19 Information Hub includes the following:

1. [FIP Guidance & summaries](#)
2. [FIP resources](#)
3. [FIP COVID-19 Online Programme \(webinars\)](#)
4. [COVID-19 vaccinations](#)
5. [Resources from Organisations around the world](#)
6. [#PharmacyHeroes Campaign](#)
7. [Questions from FIP members](#)
8. [Articles](#)
9. [FIP COVID-19 Timeline](#)
10. [In memorium](#)

The hub continues to serve our members and provide resources not only for the COVID-19 pandemic, but other public health emergencies of international concern.

1.2.2 Gathering global expertise through the FIP COVID-19 Expert Advisory Group

When WHO declared the outbreak of the new coronavirus as a Public Health Emergency of International Concern on 30 January, FIP immediately set up the FIP Guidance on COVID-19 Taskforce - an taskforce of experts - to develop guidelines to support pharmacists around the world to help minimise and control the outbreak and provide advice and care to patients and communities.

The task force comprised experts from different pharmaceutical practice areas (community and hospital pharmacy, military and emergency pharmacy, clinical biology, and academia) and countries and regions. The task force developed emergency guidelines to support the pharmacy workforce worldwide in helping to minimise and control the outbreak and in providing advice and care to patients and communities.

FIP wholeheartedly thanks the members of the FIP Guidance on COVID-19 Taskforce [Annex 2] for their immediate positive response, their commitment, swift work and expertise, which allowed us to provide a rapid response to this crisis. Their expertise will continue to inform the work of the FIP COVID-19 Global Expert Advisory Group.

To manage the broad impact of COVID-19 and building on the success of the task force of experts, we set up the FIP COVID-19 Global Expert Advisory Group (EAG) to increase the breadth and depth of capability and capacity in responding to new and emerging needs of the pharmacy workforce.

This group sought to:

1. Increase FIP's capability and capacity in responding to new and emerging needs of the pharmacy workforce;
2. Ensure all elements of science and practice and education are reflected alongside practice;
3. Create a longer-term perspective, moving from an urgent, rapid response to longer-term advice and expertise in selected areas;
4. Support our member organisations, individuals, and colleagues worldwide to respond to the COVID-19 global health crisis in solidarity.

Annex 4 includes the EAG's Terms of Reference which outlines its mission, objectives and ways of working. FIP is immensely grateful to all the EAG members [Annex 3] for their dedication and commitment to pharmacy during the pandemic. While the EAG's mandate has ended, we will continue to engage with its individual members to support with our wider emergency and pandemic preparedness, response and recovery workstreams as we evolve this group to support future pandemics.

1.2.3 Establishing the FIP pandemic preparedness programme

In July 2021, as the pandemic progressed and we moved from the first acute phase, we launched a new initiative to demonstrate the importance of pharmacy in future pandemic preparedness: a pandemic preparedness programme. This programme forms part of the FIP [SustainabilityRx](#) programme, which is our wider work FIP programme that supports the progress and implementation of [FIP Development Goal 21](#)³ (Sustainability in pharmacy).

At this time, the SustainabilityRx programme covers three key priority areas:

1. **Disasters and pandemics:** responding to and preparing for disasters and pandemics;
2. **Environment and planetary health:** protecting the environment and mitigating the health effects of climate change; and
3. **Sustainable services:** developing sustainable and safe services.

This FIP pandemic preparedness programme and projects aimed to reflect on how we responded to the pandemic, what went well, and what we could do better in the future for us to better prepare for the future pandemic.

We collected examples of the journey, activities, priorities, and learnings from our member organisations throughout the pandemic against milestones of 100 days, starting from 30 January 2020. These examples were collated into an interactive visualisation⁴: [the Global Dashboard of Pharmacy's Response to the COVID-19 Pandemic](#).

In addition to these projects and outputs – of which this report is one – FIP's pandemic preparedness programme will continue to support our members with resources on pandemic response but also preparedness and recovery, and developing resilient pharmacy systems.

1.2.4 Strengthening FIP advocacy for pharmacy-based vaccination delivery

During the pandemic, FIP supported member organisations in advocating for the pharmacy workforce's role and impact on society. FIP established a number of statements and calls to action individually and with other healthcare professional organisations.

In 2020, after broad consultation with our member organisations and constituencies, FIP issued [a call to action](#) to support pharmacists and pharmacy workers on the COVID-19 frontline. This document listed 23 urgent measures that governments and other stakeholders must put in place to ensure the continuity of pharmaceutical care to people worldwide and so that pharmacists can play an even greater part in the fight against COVID-19. This call to action has been sent to pharmacy governmental officers, health ministries, and other authorities in the nations by our member organisations to advocate for pharmacists' role and impact.

FIP then announced a [Statement of Principle](#)⁵ on the impact of the COVID-19 pandemic on health equity and vulnerable patients and populations and recognised that the impact of COVID-19 has been closely associated with social determinants and has led to increased vulnerability across communities, especially where there were existing underlying problems and disparities in health and other social determinants. This statement addressed issues such as violence against women and children, marginalised, displaced and underserved communities, low-resource settings, patients with underlying conditions and older adults.

In terms of our programmes, the FIP [prevention programme](#) continued our work on improving pharmacy-based vaccination coverage and promoting a life-course approach to vaccination – and building on the role of pharmacy-delivered COVID-19 vaccination. A new ‘microsite’ on our website gathered FIP’s publications, partnerships and events in the area of vaccination, to support FIP’s members and individual pharmacists around the world in promoting vaccination awareness and confidence and expanding vaccination coverage globally across all ages and population groups. In addition to these resources, the microsite hosts detailed information and various outputs of the FIP [‘Transforming Vaccination’](#) programmes - a series of two annual digital event programmes which were delivered in 2020 and 2021, resulting in two key [FIP Commitments to Actions](#).

1.2.5 Supporting the pharmacy workforce with professional and technical guidance

FIP understood the importance of technical and professional guidance to support our members during the pandemic, across all sectors of practice and all nations. Our initial guidance was translated in the six official United Nations languages just six days after the outbreak declaration.

As the outbreak developed into a pandemic, the task force updated this guidance with new versions to reflect the rapidly emerging evidence and growing knowledge. We collaborated with our member organisations and other partners on translating these resources into different languages for maximal dissemination and use. In addition to the guidance documents, ten summary sheets were produced on key aspects of the pharmacy's role to facilitate the use and distribution of the guidance.

To further support our members, we expanded our programme of work on COVID-19 to include the following elements:

1. Clinical information and treatment guidelines for COVID-19;
2. Guidelines for pharmacists and the pharmacy workforce;
3. Frequently asked questions and myth-busting;
4. COVID-19 Additional resources;
5. Summary guidance sheets (one page each) such as: COVID-19 transmission and incubation; Community pharmacy interventions and patient counselling; Pharmacy operations and facilities: ensuring safety for all and continuity of service; Community pharmacy procedure and contingency plans; Patient isolation and referral; Cleaning and disinfection management; Treatment guidelines and medicines to be stocked; Use of masks and Notice to community pharmacy patients and customers.

FIP remained alert and aware of the debates, discussions, and media reports on tests and treatments for COVID-19.

To guide members of our profession at this time we issued a [statement](#)⁶ on both these issues. We also published a further position statement⁷ on the association between non-steroidal anti-inflammatory medicines (including ibuprofen), angiotensin-converting enzyme inhibitors, angiotensin receptor blockers and corticosteroids, and an increased risk of coronavirus/COVID-19 infection or disease severity. We published a Holding Statement on COVID-19 testing strategies and the use of hydroxychloroquine/ chloroquine in treating COVID-19 patients.⁶

FIP also took the initiative to remember and pay tribute to those pharmacists and members of the pharmacy workforce that lost their lives on the frontline of the pandemic response as they strove to provide health care to their communities

and support health systems worldwide. With the In memoriam section of our dedicated webpage, we sought to ensure that none of these colleagues is forgotten.

1.2.6 Gathering data, evidence and best practices

Part of the FIP role is to collate and validate global data on pharmacy workforce, practice and pharmaceutical science. We routinely undertake comprehensive analyses and provide accessible, high-quality intelligence that supports our member organisations in their work. We developed surveys to capture the pharmaceutical response to and impact of COVID-19 from 2020 to 2022.

The FIP Young Pharmacists Group explored how young pharmacists and pharmaceutical scientists worldwide responded and adapted to COVID-19. The FIP's Western Pacific Forum also conducted a mini survey in the early of the pandemic aimed at describing the major areas of impact of the Covid-19 pandemic on pharmacist services/education, changes in legislation and the work of pharmacists in the region.

Focusing on the impact of the pandemic on educational institutions, we launched a rapid-response survey to collate institutional, university-level information on the higher education sector's responsiveness to COVID-19. The sector was forced to quickly adapt models of higher education provision in response to the pandemic, with a sudden shift to novel modes of delivery, assessment and learning progression – including new ways of interacting with student populations. How the universities have responded will have long-lasting impacts on the pharmacy higher education sector.

Teaching, learning and assessing for regulated competencies using remote, online and distanced delivery modes will affect the assurances and standards required by regulators and accrediting bodies. The impact on individual students was also considered and the data from this survey aimed to inform a set of recommendations that we will advocate to support our members in strengthening education and training in the nations.

In addition, the COVID-19 pandemic catalysed numerous changes in healthcare worldwide and accelerated digital health transformation. Relevant content in curricula and digital health training was needed to prepare the pharmaceutical workforce. FIP conducted a survey to investigate the readiness and responsiveness of pharmacy education regarding digital health and identify knowledge and skills gaps in the pharmaceutical workforce. The findings were published in a new report, "FIP digital health in pharmacy education: Developing a digitally enabled pharmaceutical workforce".⁸

The survey revealed that more than half of responded pharmacy schools and faculties (n=148, 57%) did not yet offer digital health education or training, with many citing a lack of experts (n:124; 84%) and resources (n:117; 79%) needed. Moreover, it found that many practitioners lacked familiarity with emerging digital health technologies such as blockchain, bots, digital medicines and artificial intelligence. Only a small proportion of these respondents (n:80; 15%) had received continuous educational development on digital health, which informed us of the then status in pharmacy education and training for us to build on and outlines several ways forward, including giving greater attention to workforce development for implementing new systems of digital health delivery; the adoption of education strategies by employers and universities; and professionally driven advocacy efforts to ensure integration of digital health into pharmacy education and educational and accreditation standards. The report also shared from pharmacy schools and faculties worldwide.

We shared the world's largest collection⁹ of peer-reviewed COVID-19-related pharmaceutical education research manuscripts, editorials and case studies through our FIP's Pharmacy Education journal. This special education research collection brings together some of the global responses to teaching, learning and delivery in pharmacy education during the challenging climate of the COVID-19 pandemic, comprising 24 full research papers, 16 global editorial commissions and 29 case studies and innovations.

From the pharmacy practice perspective, we understood the role of pharmacists and the pharmacy support workforce in the fight against COVID-19 has been remarkable. FIP distributed a survey to determine the country-level impact of COVID-19 worldwide, aiming to assess the national impact of COVID-19 on community and hospital medicines supply pharmaceutical services on the national level. The findings have informed the development of a number of digital programmes, and highlighted country case studies to be featured for others to learn from.

Focusing on pharmacists' role in vaccination, FIP surveyed pharmacy-based vaccination for diphtheria, tetanus and pertussis booster, COVID-19 and meningococcal vaccinations, seeking to raise awareness and assess the role of pharmacists in administering diphtheria, tetanus and pertussis booster, COVID-19 and meningococcal vaccinations in countries with regulated pharmacy-based vaccination.

The findings were published in a new report, "Advocating expansion of the pharmacist's role in immunisation: A focus on diphtheria-tetanus-pertussis booster, COVID-19 and meningitis vaccinations",¹⁰ and launched in a webinar¹¹ during the World Immunization Week in April 2022. Over 500 participants registered to the webinar and 289 of them from 60 countries attended live as well as the Youtube video has been viewed for more than 300 times.¹¹ In 23 of the 28 countries, community pharmacies were authorised as administer COVID-19 vaccines; in 16 out of 36 countries, trained pharmacists can administer COVID-19 vaccines outside of a community pharmacy setting. This is a significant shift in the scope of pharmacist and pharmacy support staff authority within a relatively short time frame, considering the earliest that COVID-19 vaccines were available to the public was December 2020.¹²

1.2.7 Adapting our ways of working

As with all our member organisations and the profession at large, the pandemic meant we significantly re-prioritised our projects, and deliverables. Some examples of how we've adapted our ways of working are summarised below:

1. We reworked our plans and changed ways of working, resulting in the "digitisation" of our business meetings and daily work.
2. We cancelled our planned congresses and events for 2020 and subsequently for 2021, as have so many events organisations globally, for example, our 7th FIP Pharmaceutical Sciences World Congress and FIP regional congress in Southeast Asia and Africa regions and the 80th .
3. We decided to hold our business meetings virtually. Our FIP staff have to comply with the Dutch government's direction to work from home, and we have adapted this way of working.
4. We refocused our business programmes and established new responsive components such as a new digital programme on COVID-19 (See Section 1.2.10) and the pandemic preparedness programme (See Section 1.2.3).
5. In addition to re-designing our membership engagement strategy (See Section 1.2.8), we've re-configured our communications with our members. This included new weekly COVID-19 updates & presidential newsletters.

1.2.8 Re-designing our membership engagement strategy

Investing in member engagement continued to be a top strategic priority for FIP, particularly because, with the ongoing COVID-19 pandemic, little face-to-face contact was possible across two to three years. Across all our organisations the onset of the pandemic highlighted the need to connect and maintain rapport with members, and to engage purposefully.

As FIP moved into a second year (2021) with no face-to-face meetings or gatherings due to travel bans and social restrictions, the need to be nimble, adaptable, and flexible in the approach to engage with members was heightened. Therefore in 2021, FIP approached member engagement with the aim to identify member needs, priorities, and preferences, both as an imperative for the longevity of FIP's strategies and mission and for the profession at large.

Questions arose: What are FIP members' pressing and ongoing needs and priorities? What effective methods or strategies need to be experimented with to better understand members' needs and wants? Which of these methods provide member benefits and which do not?

In 2021 FIP set out a virtual regional and national engagement strategy. This provided opportunities not only to engage with members but also to identify their needs using a variety of approaches. Member engagement focused on identifying members' needs and priorities and supporting them to advance pharmacy in their local, national, and regional contexts. With members at the heart of all initiatives and activities, FIP sought to understand aspirations, priorities, preferences and needs to enable FIP to focus support where needed and promote examples of good practice where appropriate.

A prominent feature of the FIP engagement approach was to capture the voice of FIP members, to provide an authentic report of challenges and priorities as seen by them. We did this by ensuring all activities were interactive, purposeful, and targeted. The voice of the members is a vital tool in customising and tailoring support for members' needs and priorities. It allows FIP to identify how members can support each other and share lessons learnt. This is shared further in the complete report.

In addition, FIP used the opportunity to ask two questions: What needs do we meet? What benefits do we provide?

FIP involved members actively through digital events and regional meetings; they were asked questions, listened to, and followed up. Then needs and areas of excellence are prioritised, aligned and, where appropriate, delivered through FIP programmes. This approach was also adopted when conducting high-level meetings with leaders and engaging across regions to better connect with members. As we explored members' national profiles and priorities, comparable needs and priorities emerged, which FIP has been able to identify, highlight and interconnect across nations, regions and the FIP Development Goals (DGs) for the decade ahead.

Key engagement in 2021

1. FIP delivered a series of online regional meetings in each quarter in 2021. To engage our members specifically, we asked all members what their needs were and what benefits we offer them.
2. FIP conducted high-level meetings to discuss specific issues and challenges raised by our member organisations.
3. Across 2021 and 2022, FIP completed surveys across the federation to identify further details on members' needs. For example, one such survey* was disseminated to identify priorities for continuing professional development to support the pharmaceutical workforce across different nations and regions.
4. FIP conducted multiple interviews with representatives of member and observer organisations with different but focused objectives and aims.
5. FIP sought perspectives and insights from member organisations, observer organisations, academic institutional members, FIP regional pharmaceutical forums and FIP's internal constituencies to further understand how engagement efforts support achieving goals and objectives. *
6. The FIP Development Goals Report 2021 "Setting goals for the decade ahead" provided an update on the state of the goals one year after they were launched and serves as a starting point for developing the next decade's roadmap aligned with UN Agenda 2030.

*More information and detailed results are detailed in the complete FIP engagement with our membership 2021 report which is a member-only publication.

Diverse engagement initiatives to enhance collaboration

In 2022 FIP continued to engage member and observer organisations at various levels, including but not limited to focused discussions on relevant topics that go part way to achieve the identified priority development goals and facilitate the exchange of experiences among members from different nations (see Table 1).

Table 1: Regional engagement activities 2022

| Regional engagement activities 2022 | | | | | |
|--|---|--|---|--|---|
| FIP regional digital events | FIP regional engagement meetings | FIP shared priorities meetings | FIP-member organisation high level meetings | Member-led meetings | FIP-GPO Multinational Needs Assessment Programmes (MNAP) |
| A series of online events and webinars focusing on specific WHO regions. | Regional specific meetings that aim to: (i) provide high-level updates on relevant FIP activities; and (ii) discuss regional specific topics highlighting success stories, sharing experiences and achievements aligned with relevant themes. | The purpose of these meetings is to connect specific member organisations (from different regions) that share similar priorities (such as language, cultural context, or development needs). | One-to-one meeting with each member organisation to strengthen our collaboration, to plan specific actions and to coordinate joint attention to specific needs. | FIP will enable certain types of meetings to be planned, coordinated, and organised by member organisations. | This programme aims to establish and monitor the needs across nations and members in terms of science, practice, workforce and education. This also feeds into regional and global needs assessments. |

1.2.9 Strengthening our partnerships and working with others

In March 2020, FIP joined efforts with its sister organisations in the World Health Professions' Alliance (WHPA¹) and called for the support of front-line health workers. One month later, with the WHPA, FIP urged G20 leaders to secure personal protective equipment for health personnel for all health professionals and healthcare workers on the frontline against COVID-19. The letter asked the G20 to "take immediate and adequate steps to reactivate and ensure the supply chains for PPE with speed and consistency through manufacturing, customs, procurement, and delivery".

FIP also advocated and contributed to the WHO's response to the pandemic. For example, in December 2020, FIP contributed to the WHO interim guidance on "[Health workforce policy and management in the context of the COVID-19 pandemic response](#)".¹³ The pandemic has increased challenges for everyone working in healthcare, and FIP has urged measures to support pharmacy and pharmacy support workers. This new guidance consolidated early evidence and identifies recommendations to protect, support and empower health workers at individual, management, organisational and system levels. It outlined COVID-19 human resources for health policy options for decision-makers and managers responsible for the planning, recruitment, training, equipment, deployment, protection and management of the health workforce at national, subnational and facility levels and some parts are also directly relevant for educators, regulators, development partners and health workers themselves. It advocated for pharmacists' role to be optimised by allowing community pharmacists to administer vaccinations and to provide medicines normally supplied by hospital pharmacies to outpatients. It also highlighted that enabling pharmacists to have waivers for early and multi-month refills and to permit therapeutic substitution helps to reduce pressure on the primary health care system and minimise risks of infection.

At the 73rd World Health Assembly, FIP advocated to health ministries for pharmacists' value in primary health care during the COVID-19 pandemic. We highlighted how pharmacists' organisations worldwide have speedily adopted new measures to ensure continuity of care, such as home delivery of medicines and telepharmacy. We also focused on pharmacists' role in ensuring an effective pharmaceutical supply chain by identifying medical products at risk of shortage and implementing mitigation plans, including compounding hand sanitisers.

¹ WHPA Member organisations: World Dental Federation (FDI); International Pharmaceutical Federation (FIP); International Council of Nurses (ICN); World Physiotherapy; and World Medical Association (WMA).

At the 74th of WHA, we advocated for protecting people from substandard and falsified medicines and vaccines for COVID. In the 75th of WHA, the FIP, together with the WHPA, called for a need of the integrated and complementary roles of a multidisciplinary healthcare team consisting of general practitioners and specialist medical doctors, nurses, pharmacists, dentists, physiotherapists and other health and social workers in non-communicable diseases management. Also, together with the other five other organisations called for legally binding strategies to guarantee the safety of health personnel, especially in high-risk settings. In addition, FIP also delivered an individual statement on Strengthening WHO preparedness for and response to health emergencies focusing on the need for an international multilingual database of medicines information.

The FIP joined the WHO and other organisations, including the Frontline Health Workers Coalition, the International Council of Nurses and the World Medical Association, to draw attention to data on vaccinated healthcare workers numbers from 119 countries via a joint statement. In the Joint Statement,¹⁴ we called on all governments and stakeholders to strengthen the monitoring and reporting of COVID-19 infections, ill-health and deaths among health and care workers (including disaggregation of data by age, gender and occupation as a standard procedure) to enable decision-makers and scientists to identify and implement mitigation measures that will further reduce the risk of infections and ill-health. We also highlighted the increasing proportion of the health workforce suffering from burnout, stress, anxiety and fatigue. And we called for leaders and policymakers to ensure that health and care workers are prioritised to uptake COVID-19 vaccinations.

We focused on joining forces with other healthcare professionals on several webinars, with the WHPA in May 2021 to discuss the challenges faced by health professionals and the importance of providing positive practice environments to safeguard the health and well-being of workers. We also hosted a panel discussion with the leaders of other global healthcare professional organisations to discuss the need to expand workforce capacity for vaccination delivery, including pharmacists, in June 2021 and the second event in Oct 2021 with a panel of civil society organisations and agencies.

FIP also contributed to the World Health Summit to discuss preparedness for the next pandemic on behalf of pharmacy and all health professions. The World Health Summit is one of the world's leading strategic forums for global health, bringing together leaders from politics, science and medicine, the private sector and civil society.

Furthermore, to progress and support our work on immunisation, we conducted a series of three high-level advocacy roundtables, co-hosted with Immunisation for All Ages (IFAA), to mobilise the support of global stakeholders and initiate a cascade of support at regional and country levels. We supported the publication of the updated [IFAA manifesto](#) and a [position paper](#) on "Protecting and progressing routine immunisation".¹⁵

1.2.10 Delivering FIP COVID-19 digital programmes

In 2020, when COVID-19 was declared a global pandemic, FIP responded by launching a series of digital events on COVID-19 and has launched a series every year since then. Each of these series consists of a number of webinars that address the different matters that have surfaced throughout the years of our battle against the pandemic, particularly those that are related to pharmacy and pharmacists. From these three series, some lessons were captured and learned, most of which must be taken into account for the pandemic preparedness of our health systems.

Launched in 2020, the first series starts by highlighting key facts about the COVID-19 virus and the diseases it causes as well as presenting FIP's response to the outbreak and the role that pharmacy and pharmacist can play during the pandemic. Hearing the experiences of the pharmacists working on the frontline in different parts of the world was one of the ways that FIP identified successful – and unsuccessful – methods and strategies through which pharmacists can contribute to the control, prevention, and treatment of COVID-19. Some of the lessons learned from these events include the importance of the management, training, and development of the workforce, learning from past pandemics and applying these lessons to the current and future pandemics that we may have to face, while also ensuring we never disregard the significance of the mental health of our workforce and patients. Issues of leadership and gender equity was also raised in the first series, unveiling a long-standing and unresolved issue in the health workforce. Another main area was pharmacy education and the challenges that pharmacy students faced with the shift to remote/online learning,

with learnings from different countries that could be utilised to enhance the development of the pharmacy education during the pandemic.

The second series, launched in 2021, reviewed what went well during the first year of the pandemic and lessons and improvements in the first series. This comprised a few lessons learned on pharmacy education, such as maintaining high quality and standards of education while integrating pandemic preparedness and response as part of pharmacy education. During this time, a clearer understanding of the COVID-19 virus brought about clearer understanding of the effects of different drugs on the virus and the disease, which were explored in the second series. Equitable access to vaccines and drugs during the pandemic was one of the priority areas and struggles for many countries, with events held to identify solutions and provide guidance to achieve equity and access in their health systems. A key outcome of those events was the significance of increasing access to vaccines by involving pharmacists as a way of disease control and prevention. In summary, assessing the learnings from the year before, informed the third series to move ahead with the pandemic. In the third series in 2022, events mainly focussed on pharmacy preparedness for future pandemics.

Many lessons have emerged relating to the pharmacy workforce, education, practice, and science, moving us from the COVID-19 pandemic to the preparation of future pandemics to ensure we do not face the same issues we did in the battle against COVID-19. Some key lessons emerging were ways of delivering patient-centred support for COVID-19 as well as some therapeutic advances against the virus. The list of digital events is in Annex 5.

2 Our member organisations' response to COVID-19

2.1 Global survey on pharmacy's response to the pandemic

Section 1 highlighted FIP's response to the pandemic focusing on four broad themes:

- 1) supporting international solidarity and our members;
- 2) advocating and showcasing the impact of the pharmacy profession in responding to the pandemic;
- 3) gathering data, evidence and innovation; and
- 4) adapting our business and ways of working.

To further reflect on the profession, FIP also started a pandemic preparedness project to include our member organisations' responses alongside the global response to the pandemic, to learn from each other about how the profession responded to COVID-19 and to inform future pandemic preparedness, response and recovery.

2.1.1 Design

The online questionnaire was distributed from October 2021 to February 2022. Apart from the online questionnaire, we also developed the questionnaire in Microsoft Word format (to facilitate data collection) and FIP regional account holders were engaged to assist in outreach efforts to increase participation and response rates. The questionnaire consisted of four sections: member organisations' details; initiatives, activities and outputs during the COVID-19 Pandemic per 100 days since 30 January 2020; pharmacists' role during COVID-19; and organisation's main challenges, priorities and support.

The FIP Pandemic Preparedness project team reviewed the questionnaire. The data were entered into the online survey and only completed responses were analysed. We initially conducted data coding, followed by generating initial themes from the coded data. We reviewed, refined and recategorised the themes and described themes in this report.

2.1.2 Respondents' demographics

A total of 52 member organisations across 44 countries and territories completed the survey. Out of these 52 member organisations, 6 of them are in the African region, 6 of them are in the region of the Americas, 5 of them are in the Eastern Mediterranean region, 25 of them in the Europe region, 2 in the South East Asia region, and 9 in the Western Pacific region. Figure 2 illustrates the country of member organisations that participated in this survey, and Annex 1 provided the list of member organisations per country and regions.

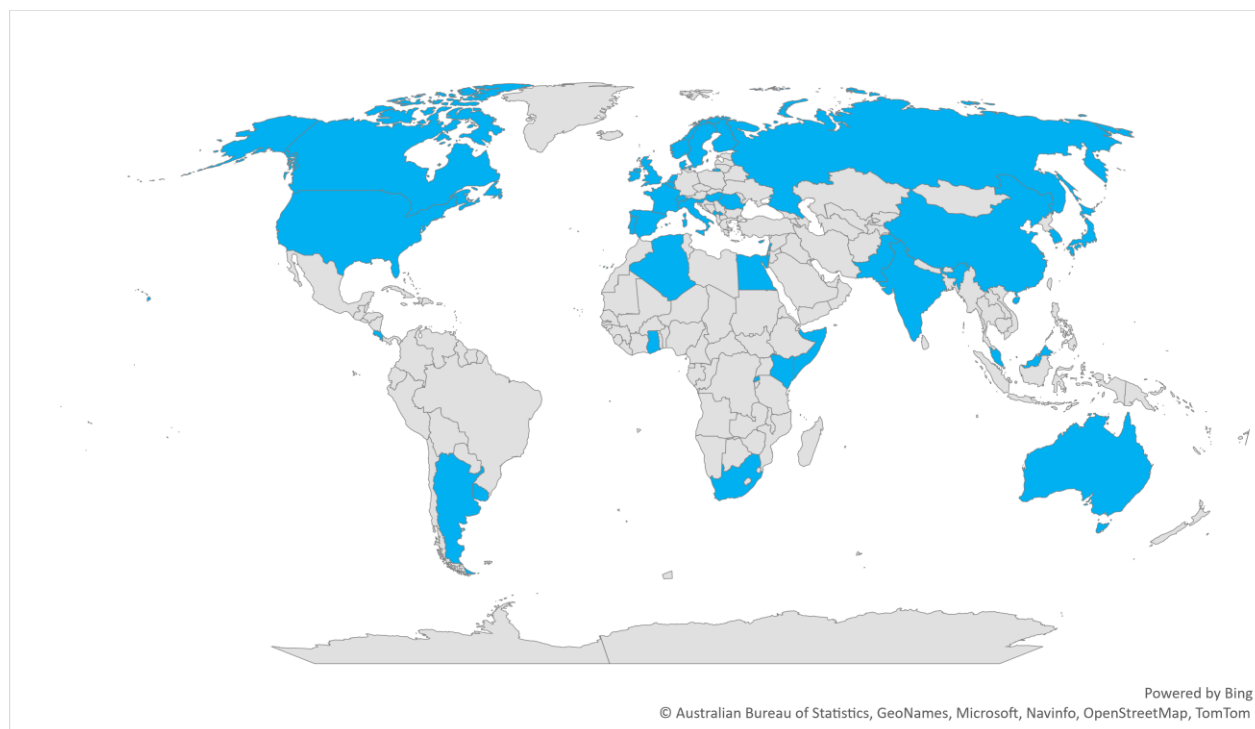


Figure 2: Country of responded member organisations

2.1.3 Member organisations' activities and outputs

Eleven categories of themes were identified. The visualisation of member organisations' activities and outputs can be accessed in our interactive dashboard: www.sustainability.fip.org.

2.1.3.1 Clinical guidance to support the pharmacy workforce in managing COVID-19

A total of 32 member organisations reported the development of clinical guidance for pharmacists and pharmacy technicians to manage COVID-19. Out of these 32 organisations, 6 are located in the Africa region, 4 in the Americas region, 3 in the Eastern Mediterranean region, 15 in Europe, 1 in South East Asia, and 3 in the Western Pacific region. It should be remembered that these are based on what was reported, not the entire production in the regions, so forms a sample response.

The clinical guidance reported by the member organisations includes COVID-19 prevention, pharmacotherapeutic management of COVID-19, disinfection and infectious disease control measures in the pharmacy, and updates on COVID-19 epidemiology. The clinical guidance was disseminated through a public access website so members could access the guideline freely. In addition, newsletters on the latest COVID-19 developments were sent out regularly by the organisations to disseminate the guidelines.

The **Pharmaceutical Society of South Africa (South Africa)** has circulated a guideline on COVID-19 Occupational health and Safety in Workplace to members. The Pharmaceutical Society of South Africa has also circulated updated information on the use of ivermectin.

The **Argentinian Pharmaceutical Confederation (Argentina)** developed clinical practice guidelines for community pharmacists to manage COVID-19. The **Costa Rican College of Pharmacists (Costa Rica)** also developed clinical practice guidelines for pharmacists to manage COVID-19. In addition, the Costa Rican College of Pharmacists also developed guidelines for dispensing of medications through telemedicine.

The **Institut National de Santé Publique, d'Épidémiologie Clinique et de Toxicologie-Liban (Lebanon)** developed and published several clinical practice guidelines, including “infection guide and recommendations”, “medication use in special populations during COVID-19”, and “prevention and testing of COVID-19”. The **Somali Pharmaceutical Association (Somali)** also developed guidelines on medication use to manage COVID-19 symptoms for retail pharmacies.

The **Association of Danish Pharmacies (Denmark)** developed a website to publicise clinical guidance and informational resources to guide pharmacists on COVID-19 management and sanitation. Likewise, **pharmaSuisse (Switzerland)** also developed clinical guidelines for pharmacies to manage COVID-19. **Fedefarma (Italy)** developed protocols to guide COVID-19 management and the containment of spread of COVID-19 at workplaces.

The **Association of Pharmacists Belgium (Belgium)** also published several guidelines on hygiene measures, use of masks, and sanitation. An open access [website](#) was also developed to provide up-to-date guidance for pharmacists in Belgium. In addition, newsletters on the latest COVID-19 developments were sent out once or twice a week by the Association.

The **Norwegian Pharmacy Association (Norway)** developed guidelines on pharmaceutical service delivery during the COVID-19 pandemic. The **General Pharmaceutical Council of Spain (Spain)** published technical reports on COVID-19 and developed guidance for the use of masks during the COVID-19 pandemic.

The **Indian Pharmaceutical Association (India)** circulated information and guidance on appropriate medication use as well as the importance of infection prevention and control to their members. In addition, guidelines on sanitation and proper hand hygiene were also provided for pharmacies.

The **Japan Pharmaceutical Association (Japan)** published clinical practice guidelines on COVID-19 management for pharmacists. The **Pharmaceutical Society of Singapore (Singapore)** published guidance for pharmacists on COVID-19 management and several anti-infection measures. The **Malaysian Pharmacists Society (Malaysia)** published clinical practice guidelines and developed handbooks on COVID-19 diagnostic tests, prevention and treatment, and general counselling for pharmacists. In addition, the Malaysian Pharmacists Society also launched a [website](#) to consolidate clinical guidelines on COVID-19.

2.1.3.2 Public educational programmes and events

From our survey, 31 member organisations were involved in organising public educational programmes and events to enhance and empower the public with COVID-19-related knowledge. These member organisations include 3 in the Africa region, 3 in the Americas region, 4 in the Eastern Mediterranean region, 14 in Europe, 1 in the South East Asia region, and 6 in the Western Pacific region.

The Member organisations that responded disseminated public educational materials and resources to address misconceptions and misinformation. The educational programmes could be organised in collaboration with other local pharmacy or healthcare organisations and international organisations, such as the International Pharmaceutical Federation. These educational programmes and events include: 1) COVID-19 prevention and management, 2) appropriate medication use, 3) self-care, 4) diagnostic testing, and 5) advocacy for vaccination. Apart from online events, some educational materials and resources were disseminated through a dedicated website or leaflets in the community pharmacies.

The **Pharmaceutical Order of Cape Verde (Cape Verde)** organised digital events for the public. The **Pharmaceutical Society of South Africa (South Africa)** organised webinars to keep the public and members updated on the COVID-19 developments in South Africa. In addition, the Pharmaceutical Society of South Africa also organised digital events to educate the public on COVID-19 vaccination and advocate for vaccination. Furthermore, the Pharmaceutical Society of South Africa is also active in disseminating webinars and digital events on COVID-19 that were organised by the International Pharmaceutical Federation and the South Africa Medical Association.

The **Asociación de Química y Farmacia del Uruguay (Uruguay)** organised webinars to educate the public on the preventive measures to contain the spread of COVID-19. In addition, the Asociación de Química y Farmacia del Uruguay also disseminated public educational webinars organised by other national pharmacy organisations. The **American Society of Health-System Pharmacists (United States of America)** disseminated and published COVID-19 educational materials and resources, especially on medication use, through the safemedication.com website.

The **Pakistan Pharmacists Association (Pakistan)** disseminated educational materials in the form of pamphlets in community pharmacies as well as organised webinars to advocate for COVID-19 vaccination.

The **Cyprus Turkish Pharmacists' Association (Cyprus)** organised live online programmes to educate the public on COVID-19. The **Pharmaceutical Chamber of Montenegro (Montenegro)** disseminated public educational materials on self-care, COVID-19 prevention and management, vitamin therapy through online platforms. The **Slovensko Farmacevtsko Društvo (Slovenia)** organised webinars in the form of lectures to disseminate up-to-date information on COVID-19.

The **Indian Pharmaceutical Association (India)** has organised educational events to address misinformation about COVID-19 treatment and vaccinations.

The **Academy of Pharmaceutical and Science and Technology (Japan)**, together with the Pharmaceutical Society of Japan, organised an online symposium on COVID-19 vaccinations for the public. The **Pharmaceutical Society of Singapore (Singapore)** disseminated public educational materials and resources to address misconceptions and misinformation. The Pharmaceutical Society of Singapore also organised webinars to address medication use during COVID-19. In addition, the Pharmaceutical Society of Singapore also disseminated information on mask usage, diagnostic testing for COVID-19, self-care, and vaccination. The **Korean Pharmaceutical Association (Korea)** organised public educational events on the appropriate use of medications for COVID-19 treatment.

2.1.3.3 Digital events and educational programmes for healthcare professionals

Respondents reported digital events, including webinars, were organised regularly to update pharmacists and healthcare professionals on COVID-19 management and the progress of vaccine development. Digital events were organised by 25 member organisations, of which 3 of them were located in the African region, 4 in the Americas region, 2 in the Eastern Mediterranean region, 13 in Europe, none in South East Asia, and 3 in the Western Pacific region.

The topics for the digital events and educational programmes include 1) COVID-19 prevention and management; 2) Vaccination; and 3) COVID-19 diagnostic testing and screening.

The **Pharmaceutical Society of Kenya (Kenya)** organised weekly webinars for pharmacists and pharmacy technicians to share experiences and learning points on COVID-19 management. The **Pharmaceutical Society of South Africa (South Africa)** organised digital events to keep members up-to-date on COVID-19 management, treatment, and vaccination.

The **Colegio de Farmacéuticos de Costa Rica (Costa Rica)** organised webinars to educate community pharmacists on COVID-19 prevention and management. In addition, the Colegio de Farmacéuticos de Costa Rica also organised webinars on vaccination and pharmaceutical research during the pandemic. The **American Society of Health-System Pharmacists (United States of America)** organised digital events to educate pharmacists on COVID-19 management and provide up-to-date information on the pandemic's progress to its members.

The **Institut National de Santé Publique, d'Épidémiologie Clinique et de Toxicologie-Liban (Lebanon)** organised several digital events on COVID-19 diagnostic testing, prevention, and treatment, as well as vaccination for pharmacists. The **Pakistan Pharmacists Association (Pakistan)** organised webinars to advocate for the roles of pharmacists in managing COVID-19.

Pharmadanmark (Denmark) organised digital events on COVID-19 related subjects for pharmacists. The **Malta Chamber of Pharmacists (Malta)** organised several digital events for healthcare professionals, and these events included vaccination, COVID-19 management, and infection control measures. The **General Pharmaceutical Council of Spain (Spain)** organised various educational activities for pharmacists, including COVID-19 diagnostic testing.

The **Australasian Pharmaceutical Science Association (Australia)** organised online conferences for healthcare professionals on COVID-19 management. The **Malaysian Pharmacists Society (Malaysia)** has also organised various digital events to keep pharmacists up-to-date on the COVID-19 pandemic management and progress.

2.1.3.4 Coordination with government or local authorities

From the respondents, a total of 22 member organisations coordinated with governments or local authorities in developing protocols to guide COVID-19 management. Out of these 22 member organisations, 3 of them were located in Africa, 3 of them were located in the Americas region, 2 of them were in Eastern Mediterranean, 10 of them in Europe, 1 in South East Asia, and 3 of them located in the Western Pacific region.

Coordination efforts and initiatives include:

1. Participating in government COVID-19 taskforce to provide recommendations on COVID-19 management
2. Developed campaigns to encourage COVID-19 vaccination
3. Increased awareness of roles of pharmacists in COVID-19 management

The **Pharmaceutical Society of Ghana (Ghana)** coordinated with the local government to advocate for COVID-19 vaccination. The **Pharmaceutical Society of Kenya (Kenya)** also coordinated with the Ministry of Health COVID-19 taskforce.

The **American Society of Health-System Pharmacists (United States of America)** coordinated with the Patient Access to Pharmacists Care Coalition to urge Congressional offices for reimbursement to pharmacists for provision of COVID-19 diagnostic testing and vaccination. In addition, the American Society of Health-System Pharmacists also urged the National Academies of Sciences, Engineering, and Medicine to ensure a national plan for COVID-19 vaccination.

The **Egyptian Foundation of Clinical Pharmacy (Egypt)** collaborated with the Ministry of Health to launch a national campaign on the awareness of COVID-19. Further on, it also managed a hotline for COVID-19 vaccination with the Ministry of Health. The **Somali Pharmacists Association (Somali)** is a member of the National COVID-19 Taskforce and emphasized on the roles of pharmacists towards the management of COVID-19.

The **French Chamber of Pharmacists (France)** collaborated with the Ministry of Health crisis unit to provide feedback on the challenges faced by pharmacists. The **Malta Chamber of Pharmacists (Malta)** collaborated with the Ministry of Health to issue guidance on diagnostic testing.

The **Indian Pharmacist Association (India)** worked with local authorities and coordinated with community and hospital pharmacies to address misinformation about COVID-19.

The **Malaysian Pharmacist Society (Malaysia)** coordinated with the local government for COVID-19 management and coordination of vaccination efforts. In addition, the Malaysian Pharmacist Society also promoted the roles of pharmacists in COVID-19 management, diagnostic testing, and vaccination.

2.1.3.5 Facilitation of COVID-19 logistics and medication supply

Respondents reported supplies of medications and personal protective equipment have been disrupted due to border closures and member organisations around the world have been involved in ensuring access and supply to essential medications, personal protective equipment, and COVID-19-related logistics. A total of 14 member organisations reported their involvement, with 2 located in the Africa region, 2 located in the Americas region, 1 in Eastern Mediterranean, 6 in Europe, 1 in South East Asia, and 2 located in the Western Pacific region.

The **Pharmaceutical Society of Ghana (Ghana)** facilitated procurement of personal protective equipment, masks, and sanitisers for pharmacists and their support staff.

The **Confederación Farmacéutica Argentina (Argentina)** facilitated supply of medications and personal protective equipment for use in managing and preventing COVID-19.

The **Somali Pharmacists Association (Somali)** identified medications needed for the management of COVID-19 and facilitated their procurement and supply.

The **Irish Pharmacy Union (Ireland)** provided guidance on manufacturing hand sanitisers. The **Koninklijke Nederlandse Maatschappij ter bevordering der Pharmacie (Netherlands)** liaised with the National Coordination Centre Medicines to monitor the availability and distribution of medicines.

The **Indian Pharmacist Association (India)** worked with relevant stakeholders in the country to maintain pharmaceutical supply chain and ensure constant supply of essential medicines.

The **Korean Pharmaceutical Association (South Korea)** ensured adequate supplies of hand sanitisers and face masks.

2.1.3.6 Supporting pharmacies and pharmacists to perform COVID-19 diagnostic testing

In many respondents, pharmacies were the setting for administering COVID-19 diagnostic test and pharmacists were directly involved in performing the tests. Member organisations supported the development of COVID-19 diagnostic testing services in the pharmacies. A total of 14 member organisations reported their involvement in facilitating and supporting the set up of COVID-19 diagnostic test services; of which 1 of these member organisations is located in the Africa region, 3 in the Americas region, none in the Eastern Mediterranean region, 8 of them located in Europe, none in the South East Asia region, and 2 in the Western Pacific region.

2.1.3.7 Supporting pharmacies and pharmacists to administer COVID-19 vaccine

From our sample, a total of 9 member organisations reported their involvement in facilitating and supporting the set up of COVID-19 vaccination services. Among these 9 member organisations, 2 are located in Africa, 3 in the Americas region, none in Eastern Mediterranean, 4 in Europe, none in the South East Asia and Western Pacific regions.

2.1.3.8 Training and development of pharmacy workforce

From our sample, a total of 12 member organisations developed training programmes for pharmacy workforce to manage COVID-19. Among these 12 member organisations, 2 of them are located in the Africa region, 2 of them in the

Americas region, none in the Eastern Mediterranean region, 7 in Europe, none in South East Asia, and 1 located in the Western Pacific region.

The **Pharmaceutical Society of Ghana (Ghana)** organised training for pharmacists to administer vaccination. Similarly, the **Pharmaceutical Society of South Africa (South Africa)** also conducted training for pharmacists to become administrators of vaccine.

The **American Society of Health-System Pharmacists (United States of America)** developed the COVID Care Certified course to prepare pharmacists and pharmacy technicians for managing clinical and operational challenges during the pandemic. The online course includes a variety of relevant, evidence-based resources and tools to care for patients in all stages of COVID-19, including those critically ill. It also addresses managing pharmacy staffing and workflow, as well as supply chain challenges.

The **Irish Pharmacy Union (Ireland)** supported the training for pharmacists to administer COVID-19 vaccination. The **Portuguese Pharmaceutical Society (Portugal)** facilitated training on rapid antigen testing for COVID-19 to equip pharmacists with the skills to perform diagnostic testing. The **Ethica Independent Pharmacies Association (Romania)** provided training for pharmacists on COVID-19 management.

The **Malaysian Pharmacist Society (Malaysia)** organised training for pharmacists to administer vaccinations, as well as training for pharmacists and pharmacy staff to engage in COVID-19 management clinical activities.

2.1.3.9 Science and research

Among the 52 member organisations that responded, 11 of them were involved in science and research activities, with 1 member organisation located in the Africa region, 1 in the Americas region, 1 in the Eastern Mediterranean region, 5 in Europe, none in the South East Asia region, and 3 located in the Western Pacific region.

Scientific and research activities conducted by the member organisations can be categorised as:

1. COVID-19 prevention and management
2. Roles of pharmacists in COVID-19 management
3. Vaccination
4. Prevalence and burden of COVID-19

The **Fédération Algérienne de Pharmacie (Algeria)** engaged in numerous research work on COVID-19 and published findings in the Algerian Journal of Pharmacy.

The **American Society of Health-System Pharmacists (United States of America)** has published articles on the use of medications for COVID-19 management and treatment.

The **Institut National de Santé Publique, d'Épidémiologie Clinique et de Toxicologie-Liban (Lebanon)** has been consistently engaging in science and research work. The research work which are published include COVID-19 prevention and management, healthcare delivery model to manage COVID-19, prevalence and burden of COVID-19 in Lebanon, as well as roles of pharmacists in managing COVID-19.

The **Norwegian Pharmacy Association (Norway)** has been engaging in research into COVID-19 vaccination. The **Spain Consejo General de Colegios Oficiales de Farmacéuticos (Spain)** also engaged in research on COVID-19 vaccination, and published a report on survey investigating vaccine acceptance and hesitancy.

The **Pharmaceutical Society of Japan (Japan)** held public symposium on COVID-19 vaccine to increase awareness and knowledge of vaccination against COVID-19.

2.1.3.10 Law, policies, and regulations

A total of 7 member organisations from the respondents were involved in facilitating changes to law, policies and regulations for enhancing COVID-19 management. Among these 7 member organisations, 1 is located in the Africa region, 1 in the Americas region, none in the Eastern Mediterranean region, 4 located in Europe, none in South East Asia, and 1 of them is located in the Western Pacific region.

2.1.3.11 Development of digital tools and websites

A total of 6 member organisations developed digital tools and websites to provide up-to-date information on COVID-19 and management for pharmacists and the public. Among these 6 member organisations, 1 is located in the Americas region, 4 in Europe, and 1 organisation located in the Western Pacific region.

The **American Society of Health-System Pharmacists (United States of America)** has developed a new toolkit to share observations and experience for business recovery. The toolkit addresses pharmacy's role in hospital, practice model and pharmacy value, pharmacy business partners, drug utilisation optimisation, workforce management, and technology need that impact pharmacy services.

The **Association of Pharmacists Belgium (Belgium)** consolidated resources and educational materials for the public on a website: www.pharmacie.be.

The **Japan Pharmaceutical Association (Japan)** published up-to-date information for pharmacists and the public on their website, including the latest management measures and other measures to prevent the spread of COVID-19.

2.1.4 Organisation main challenges during the pandemic

The responding member organisations reported some challenges during the pandemic related to their organisations' activities. Most challenges reported across regions were related to a need to adapt their meetings to virtual meetings. The changes to virtual and remote working increased staff anxiety, particularly if the organisation has just started using the virtual platform or has no experience in remote event management. The **Academy of Pharmaceutical Sciences (United Kingdom)** reported challenges related to staff training to handle and manage online events and attracting a paying audience for the events that they hosted. The **Pharmaceutical Association of Israel (Israel)** reported a staff shortage due to staff infection.

Of the respondents, two member organisations reported a drop in their revenue. For example, the **Pharmaceutical Society of Kenya (Kenya)** reported membership dropped, resulting in a decrease in revenue. A similar experience was reported by the **Malaysian Pharmacists Society (Malaysia)** related to a drop in revenue and cash flow and a need for better cash management. The revenue drop could also be because they do not have as many opportunities to address sponsors who allow them to organize free education in person; this was reported by the **Slovensko Farmaceutsko Društvo (Slovenia)**. The **Pakistan Pharmacists Association (Pakistan)** and **Pharmaceutical Society of Singapore (Singapore)** reported a restricted number of people could be trained or engaged virtually.

Considering the limited evidence and experience on this pandemic and shortages of resources, this resulted in a prolonged turnaround time of decisions from government and stakeholders, which delayed actions at critical times; this is reported by the **Pharmaceutical Society of South Africa – PSSA (South Africa)**. The PSSA also experienced that information requests and processes from other stakeholders were not always well-thought, resulting in incomplete or inaccurate information required from stakeholders and members. Similarly, the **Portuguese Pharmaceutical Society (Portugal)** reported the triage of information related to fake news, and **Koninklijke Nederlandse Maatschappij ter bevordering der Pharmacie (The Netherlands)** reported challenges related to ensuring up-to-date and accurate information sharing.

Responding member organisations also reported some challenges related to resources to support pharmaceutical services in the nations. For example, medicines shortages and lack of personal protective equipment (PPEs) for their

members were reported by the **Kosova Chamber of Pharmacists (Albania)** and the **Pharmaceutical Society of Ghana (Ghana)**. Member organisations also reported a lack of support for pharmacists in the country, such as pharmacists being prioritised to be vaccinated in the country as part of healthcare professionals; this was reported by **The Association of Danish Pharmacies (Denmark)**, **Norwegian Pharmacy Association (Norway)**, and **Ethica Independent Pharmacies Association (Romania)**. There was some resistance from other healthcare professionals on the involvement of pharmacists' role reported by **Fédération Algérienne de Pharmacie (Algeria)** and **Fedederma (Italy)**. **Confederación Farmacéutica Argentina (Argentina)** reported challenges in maintaining pharmacy facilities while protecting people and communities, particularly since pharmacy was the only health centre with essential and face-to-face activity to assist the population in interventions outside COVID-19. This was also in relation to an urgent need to reconvert the pharmacies' technological systems.

Despite many challenges reported by the responding member organisations, they described that international solidarity and collaboration are very important in supporting them in tackling their challenges by sharing resources and learning from other member organisations.

2.1.5 General themes of activities of member organisations per 100 days

Figure 3 describes the general themes of responding member organisations' activities per 100 days. These themes varied across member organisations; however, it provides general ideas of what member organisations did from the beginning of the pandemic till 700 days. Member organisations that responded reported that they reacted to the pandemic by developing clinical practice guidelines for their members. These guidelines were then disseminated to member organisations via educational webinars and digital events independently or with other healthcare professionals. Many member organisations then coordinated with the government to ensure medication supply and COVID-19 diagnostic test kit supply, where pharmacists had an active role. This is followed by vaccination advocacy and digital events to promote the importance of vaccination to society. In some countries, member organisations started lobbying and expanding pharmacists' role in vaccination and diagnostic testing. Following this, member organisations keep updated the guidelines to support their members in practice and conduct science and research activities and vaccination advocacy.

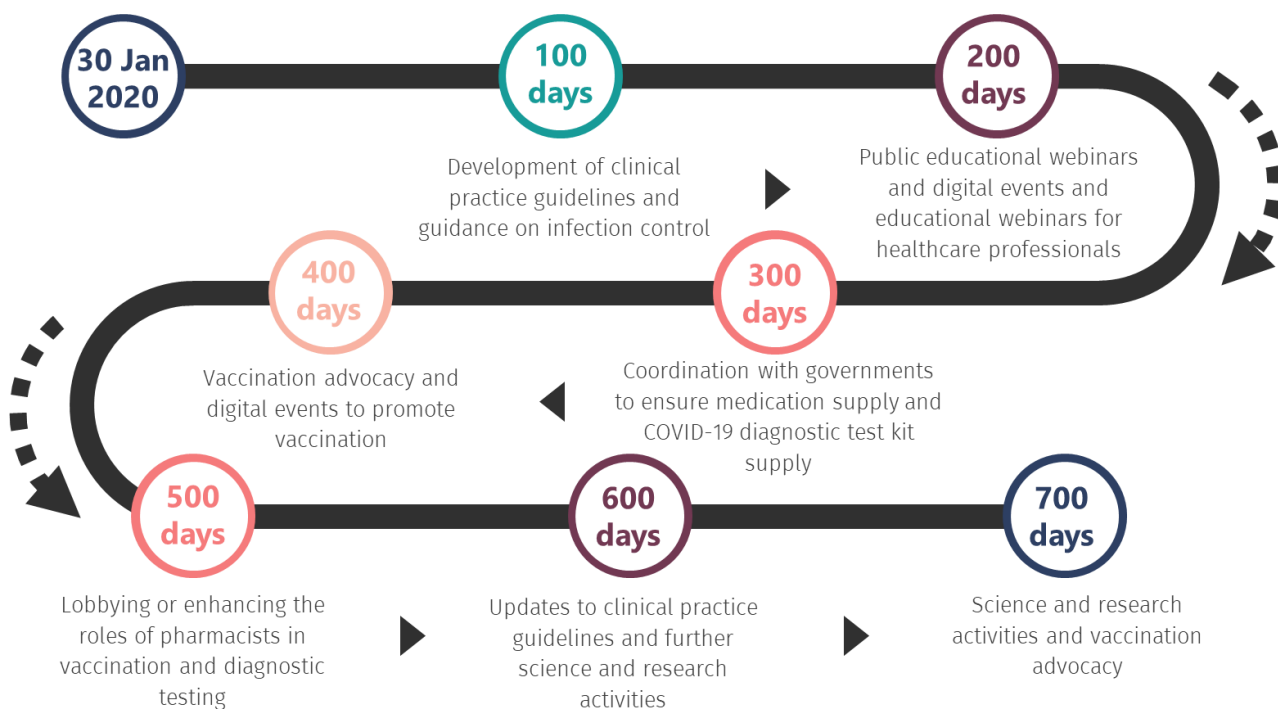


Figure 3: General themes of activities of member organisations per 100 days

2.2 Leadership strategies and initiatives our selected member organisations

2.2.1 Costa Rica: College of Pharmacists of Costa Rica



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

Political strategy:

- Collaborative work with the Costa Rican Ministry of Health for the issuance of technical guidelines.
- Collaborative work with the Ministry of Health to enforce pharmacies with measures to prevent the spread of covid-19.

Information to pharmacists and general population strategy:

- COVID-19 pandemic information repository on the COVID-19 website (www.colfar.com).
- Production of information materials disseminated by the various media to members.
- Availability review and analysis of technical-Scientific information to provide effective responses to the needs of the members.
- Campaigns aimed at the population on the importance of vaccination against COVID-19.

Pharmacy practice strategy:

- Modification of the procedures for the operation of establishments.
- Ad hoc efforts to ensure that pharmacists had the necessary supplies and personal protective measures in place.
- Effective response in the construction of technical-professional guidelines and criteria for dealing with the pandemic.
- Training courses and webinars for pharmacists on managing the pandemic and information on vaccines against COVID-19.
- Issuance of professional guidelines for pandemic care.
- Continuing education activities: virtual courses, conferences, seminars and symposia.
- Technical and logistical preparedness in pandemic care.
- Development of technological tools to support the delivery of pharmaceutical services during and after the pandemic.
- Expansion of the pharmaceutical services offered by pharmacies to patients.

Administrative measures of the organization: by law, COLFAR has the function of supervising the country's pharmacies strategy:

- Special membership for unemployed pharmacists during the pandemic.
- Virtualisation of an important segment of the procedures and services offered by the College of Pharmacists of Costa Rica to its members.
- Implementation of telework in the College of Pharmacists of Costa Rica.



Title of initiative

Adaptation of the project on pharmaceutical services in immunization. The Project started in January 2020 and many of its activities were modified to respond to the pandemic.

Drivers and motivations behind this initiative

One of the purposes of the College of Pharmacists of Costa Rica is to ensure the access of the Costa Rican population to safe and quality pharmaceutical services, for which its purpose is to implement activities to expand pharmaceutical services in immunization. During the pandemic, work was done to address issues related to vaccines, information campaigns, training, everything related to covid-19.

Current status

This initiative is still in progress and it closes in December 2022, however the actions will continue to be worked on as part of the educational offer and other programs. We are currently preparing action guides and a modular training program for pharmaceutical services in immunization.

Impact

We still do not have a tool to measure the impact, however we do have results from the information campaigns regarding the importance of vaccination against COVID-19 and the number of pharmacists trained on these issues. In addition, we provided valid and reliable information to the population and pharmacists about COVID-19.

Challenges associated with implementation

To find spaces in the national media to provide reliable information about vaccines, the role of the pharmacist, and the COVID-19 pandemic in general. Highlighting the importance of vaccination against COVID-19. Get the Ministry of Health to be our political partner for this project.

Lessons learned

Based on this experience, the College of Pharmacists has seen an opportunity to continue executing projects on issues related to public health. Incorporating the axes of training for the population and pharmacists, preparation of information campaign guides and associating with key actors. As ideas for improvement, we could expand the list of stakeholders and pharmacists available to work in other activities related to the project, in order to improve the pharmaceutical services continuously.

Additional information

Additional resources:

- www.tufarmaceuticosabe.com
- [Documentos de referencia en relación al COVID-19.](#)

2.2.2 Denmark: The Association of Danish Pharmacies



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

Our strategy was to ensure that the pharmacies could stay open. This meant that it had to be ensured that the staff did not infect each other or were infected by the customers. In addition, it was important to constantly keep the pharmacies up to date with the latest guidelines from the authorities. The association became the main contact between the authorities and the pharmacies.

To minimising the risk of infection among the staff at the pharmacies:

The pharmacist and the pharmacy staff agreed on more flexibility in the work schedule

Fewer meetings and more use of digital tools i.e., staff meetings over teams.

Working in teams to prevent infection chains

Testing of the pharmacy-staff at the pharmacies.

Physical barriers as plexiglass screens were placed between the staff and customers.



Title of initiative

COVID-19-taskforce and hotline at the **Association of Danish Pharmacies**

The team consisted of 13 employees from the Association - pharmacists, economics, and lawyers. The Pharmacy owners and staff could contact the taskforce 24/7. We made an online-site with information about COVID-19 – which was constantly updated with the latest knowledge.

Drivers and motivations behind this initiative

Our members and the staff at the pharmacy have access to all the information they need. It was possible for them to find the information themselves at that location or by contacting the task force

Current status

Both the taskforce, hotline and online site is still in progress. The pharmacy owners and staff can contact the team and hotline. We still have planned meetings every week. The hotline is only open during the association's normal opening hours

Impact

All relevant information about COVID-19 was communicated directly to the pharmacy owners and to the staff. And the taskforce team was always updated.

Challenges associated with implementation

In the beginning, the challenge was that the authorities kept making changes. Rules were also made which were not practically possible to implement at the pharmacy.

2.2.3 India: Indian Pharmaceutical Association



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

Initially from March 2020, we started awareness programmes in different cities and villages for prevention of the spread of Covid as per the WHO guidelines. Also hospital pharmacists and community pharmacies were instructed to maintain sufficient stock of medicines for covid patients as recommended by the WHO and Indian Health officials. Regulatory pharmacists ensured regular manufacturing and supply chain of medicines during lockdown period, which were quite extensive during the first phase of COVID in India



Title of initiative

Awareness programmes related to proper stocking, distribution and dispensing of medicines necessary for COVID patients as well as manufacturing of essential medicines prescribed for COVID patients as per the approved guidelines by the national authority and the WHO guidelines during lockdown period.

Drivers and motivations behind this initiative

Pharmacists prepared to perform the required services to patients under those testing conditions essentially since they believed that they are the first point of contact to patients to offer proper advice and pertinent information on which patients can rely upon and better equipped to face the situation without panicking. That is mainly how pharmacists lived up to the term "COVID Warriors". In this process many frontline pharmacists have lost their lives, but that has not dampened the zeal to help the needy. Due to their services pharmacists received greater recognition than before and that served as a great driver.

Current status

IPA continuously works towards the development of Pharmacy profession in the country and to make pharmacists one of the main pillars of the healthcare system in India. COVID actually helped to prove the point about the importance of pharmacists and pharmaceutical care services for the countries healthcare. This is still work in progress and IPA needs to continue these initiatives and many more to make pharmacy profession the undisputed healthcare provider in India

Impact

Hospital Pharmacists, Community Pharmacist, Regulatory Pharmacists, Drug Manufacturing Pharmacists and Drug Testing Pharmacists all worked long hours throughout the COVID Pandemic including those pharmacists who were deputed on special duty during lockdown period contributed immensely to the control of COVID in India during all 3 phases of the pandemic. Pharmacists involved in drug manufacturing played a role that had huge impact. Vaccine manufacturers worked extra hard to make available two major COVID vaccines which resulted in more than 2 billion vaccinations in India.

Challenges associated with implementation

Timely supply of medicines, manufacturing of medicines during lockdown period was a tremendous challenge. Supply chain of raw materials and finished drug products was impacted due to travel restrictions with in cities and between cities. Once supplies reached pharmacies, ensuring that the pharmacies were kept open and pharmacists were indeed there to dispense medicines in hospital and community settings became a huge challenge and regulatory pharmacists in state and central drug control administration worked round the clock to ensure the supply of essential medicines to the needy patients.

Lessons learned

Need of proper awareness programmes, maintenance of supply of drugs, advice on proper use of right drugs in right dose, curtailing misinformation about drugs and vaccines and preventing use of drugs whose efficacy in COVID situation was not actually proved were the major lessons learned. If IPA has seen this situation coming ahead of time, preparing all pharmacy professional streams in disaster management and infection prevention and control would have made the task of handling the pandemic easier.

Additional information

https://twitter.com/nitin_gadkari/status/1243888537553920000?s=20&t=4I6p3il0W6laObo14oc0fA

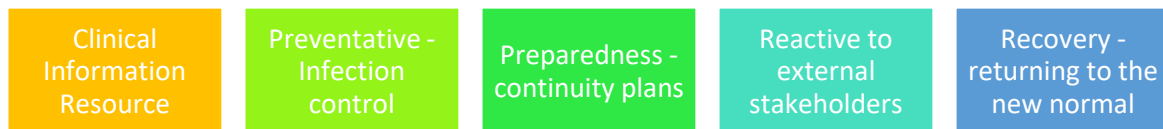
2.2.4 Ireland: Irish Pharmacy Union



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

At the start of the pandemic, when so little was known, it was clear within our organisations' leadership that we would have a large role to play in supporting community pharmacists and their pharmacies by providing reliable information, thus enabling them to be able to concentrate on what they do best, supporting patients and their local communities.

We have a relatively small team, and the rapidly changing external environment meant a reorganisation of priorities and new areas of responsibilities. We developed five strategic pillars that we focused on – clinical information resource, a preventative resource to reduce the spread of infection, preparedness measures for community pharmacies, reactive and responsive to external stakeholder requests and later on, as the pandemic continued a recovery returning to the new normal.



We were heavily supported by our IT team, who introduced new software and trained staff to facilitate online webinars, online meetings, and introduced new software to support working at a distance. This was key to the productivity of the organisation and helped maintain team morale and cohesiveness. It also facilitated the organisation to provide accurate daily newsletters to our members. This was an important function for the organisation, as both the IPU, pharmacists and allied healthcare professionals had a significant role in supporting our communities by tackling misinformation.

To support all pharmacists in Ireland who may not have been our members, we made all this information available on the public-facing side of our website.

This new way of working required a level of agility, teamwork, innovation and good communication both internally and with our members and external stakeholders. Our team rose to the challenge and maintained energy throughout and commitment to deliver as we knew our members were doing their very best to do the same; making a difference in their local communities. We engaged widely with external stakeholders, regulators, industry, health services and our Department of Health, our main focus was to keep pharmacies open as not only were they providing medicine deliveries to the most vulnerable in our society, but pharmacies also acted as a factual source of reliable information. This information was essential to help citizens understand how to protect themselves, and later as the pandemic progressed, this information phased to vaccination queries and the provision of COVID-19 tests and testing services.

Examples of Activities:

Clinical Information resource

Misinformation on medicines (Antihypertensives, Azithromycin, Hydroxychloroquine, Dexamethasone, Anti-inflammatories). Our excellent medicines information pharmacists were invaluable in this regard.

A series of articles published on the development of COVID-19 vaccines e.g., COVID-19 Vaccines: will they work against new variants (IPU review June 2021).

IPU Academy – series of webinars to support information e.g., How to fight an infodemic; Five steps to successful pharmacy consultations during COVID-19 and beyond; Medication safety through the lens of COVID-19.

Preventative – Infection Control

Joint guidance specific community pharmacy guidance developed between the IPU and the Health Protection Surveillance Centre (HPSC): Interim guidance to minimise the risk of transmission of COVID-19 infection in Community Pharmacies.

Guidance on PPE, sourcing, wearing and working with external stakeholders in the development of a webinar for all pharmacists - Medical Devices in the context of COVID-19 . Development of guides on the use of PPE in the provision of clinical service in pharmacies.

Production of a series of articles published on infection control e.g., Guidance to minimise the risk of transmission of COVID-19 infection in pharmacies, IPU review April 2020.

Application and approval by the Department of Agriculture Food and Marine for a biocidal license permitting pharmacists to formulate hand sanitisers and supported members by the production of labels for these products and in the sourcing of materials for manufacture to ensure patient safety were maintained.

Preparedness – Continuity Plans

Developed continuity plan templates.

Developed adapted health and safety, risk assessment templates for community pharmacies.

Developed guidance on social distancing and produced posters to support members' communications with the public.

Guidance provided on managing staff and staff working patterns.

Participated in a national community pharmacy contingency forum with our external stakeholders.

Reactive and Response

Supply chain management, clear communication to members and the public on managing pharmaceutical supplies to ensure equitable distribution.

Development of guidance and supports for members on updated COVID-19 regulations that allowed for the extension of prescriptions, emergency supply amendments and, for the first time, the permission of electronic prescriptions via Healthmail (our national clinical email service).

Information on COVID-19 testing and supports provided to members. We also developed a portal with the department of public expenditure and reform (DPER) to facilitate generation of COVID-19 travel certificates by pharmacists for individuals availing of testing in a community pharmacy.

Recovery – returning to the new normal

Published articles to support members e.g., Preparing for the 'New Norm', IPU Review May 2020.

Working with external stakeholders to highlight mental health supports for pharmacist – June 2020 information sent to all pharmacists on supports available.

Development of additional services and working with external suppliers to provide members with tools to support their business e.g. software booking engines for pharmacy services.



Provision and administration of COVID-19 vaccination services in community pharmacy and the provision of reliable health promotion information on available vaccines.

Drivers and motivations behind this initiative

The key driver and motivation were to protect the public and support our recovery from the pandemic in the best way possible by using our professional skills. Pharmacies in Ireland have safely provided influenza vaccination services since 2011, community pharmacists were already a skilled and trusted vaccination workforce. Our extensive network of community pharmacy vaccinators would increase accessibility to individuals. Community pharmacists had developed skills in supporting vaccination hesitant individuals and were keen to be contributing to the national effort to reduce the impact of this pandemic on our communities.

Given the ambition of the government's Vaccination Programme was to vaccinate the entire population in the most efficient way, pharmacies and our extensive network and extended opening hours would facilitate the delivery of this ambition. The Government launched the vaccination strategy document in December 2020 and in this strategy highlighted the role of community pharmacies. "As more vaccines are approved and become available for distribution, and a broader population is targeted for vaccination, General Practice and Community Pharmacy will play an increasing role in vaccine administration, subject to regulatory approval, operational feasibility, and contractual agreement."

Prior to the pandemic, the Irish Government developed a strategy in 2019 outlining its intentions for deliverables for the next four years 'Our programme for Government'. Within this document, they had the ambition to deliver a central vaccination recording system. Another ambition of our involvement in this initiative for the IPU and community pharmacists was to ensure that the platform pharmacies used to record vaccinations was connected to this national system.

We worked extensively with the IT development team within our Health Services Executive (HSE) to design a fit-for-purpose vaccination platform to allow recording into a central database for COVID-19 vaccinations administered in community pharmacy. This system was developed and is called HSE PharmaVax and has now been extended to include Influenza vaccinations. We are proud of the role pharmacists have played in the vaccination programme and in the creation of a new centralised vaccination record. This system and the access to a patients centralised vaccination record should facilitate advancements in practice and allow for an increasing number of national vaccination programmes to be administered through the community pharmacy network.

Current status

Pharmacies are still administering COVID-19 vaccinations and have administered over 1.2 million vaccines, and this number continues to grow daily. Pharmacies are currently providing, first courses, extended courses, booster doses, and vaccines to medically vulnerable and children over the age of 12. All community pharmacies are eligible to provide this vaccine and currently 50% of community pharmacies provide this service. We are currently focused on working on a plan with our National Immunisation Office and HSE teams on co-administration of COVID-19 vaccines with the Influenza vaccine this year, last year 85% of community pharmacies offered an influenza vaccination service.

This initiative demonstrated pharmacists' ability to deliver a vaccination programme at a challenging time, with changing clinical guidance and continuous changes in vaccines being used and cohorts eligible for vaccinations or boosters. Pharmacists in Ireland have administered Jcovden® Janssen, Comirnaty® Pfizer/BioNTech and Spikevax® Moderna Vaccines. Community pharmacists have developed new skills in dilution and in patient counselling and were key in the vaccination of our most hesitant population, reaching cohorts of patients that may have remained unvaccinated.

The IPU supported community pharmacists in this vaccination programme in a number of different ways, developing of resources, development of webinars and dedicated vaccination hubs on our website. Supporting members' logistic queries and signposting of resources for clinical queries. This campaign helped us build relationships with our external stakeholders and with the public. Market research conducted by IPSOS MRBI poll in 2021 ranked pharmacists as the most trusted healthcare professional, which is testament to all the work undertaken by community pharmacists in providing healthcare and vaccination advice.

Impact

We now have a well-trained, extremely competent vaccinator resource amongst the community pharmacist population and increased the profile of community pharmacy as a resource for the delivery of primary healthcare initiatives. Many community pharmacists also supported local vaccination centres and developed skills in multi-disciplinary working and in, risk management and operational skills. We have developed strong collaborative relationships with our partners, Community Care Strategy HSE, National Immunisation Office, Medication Safety Team HSE, HPSC, our regulator, the Pharmaceutical Society of Ireland and the Department of Health. These close relationships built on respect and trust will facilitate further advancements in pharmacy clinical services in the future.

Challenges associated with implementation

Our largest challenge was one of supply; like the rest of the world, we had a limited supply of vaccines in Ireland, and it was not until the supply of vaccines in the country increased that pharmacists were involved in the delivery of the national programme. Our colleagues in primary care within GP practices commenced vaccinating earlier than pharmacists, for a number of data quality and system related issues (defined patients assigned to GP practices). The data quality within our patient medication recording systems did not have patients categorized by clinical conditions or age, which did not facilitate the identification of the priority groups for vaccination as outlined in the Government vaccination programme plan. Our existing PMR systems were not certified or linked to the national Healthlink platform, so necessitated building a new platform to allow centralized vaccination administration records. This meant that the capacity for the delivery of a vaccination programme in the community pharmacies was not utilised at the start of the vaccination programme and pharmacists did not begin vaccinated until June 2021. We also had to engage and advocate for pharmacists to administer the COVID-19 vaccinations that required dilution a task not routinely undertaken in community pharmacies. To overcome this challenge, we worked with the HSE team and medication safety team to ensure the operational guidance supported pharmacists and delivered webinars on this in advance of the vaccination programmes commencing.

Lessons learned

This initiative has highlighted to our organisation and to community pharmacists the importance of the data that we retain within our pharmacy systems and how this needs to be interoperable within the healthcare IT ecosystem in Ireland. That the identification of a patient's medical condition and their date of birth are essential for accurate patient medication records. We are actively working with stakeholders on solutions to these issues for the future.

Additional information

References:

- 1 <https://www.ipuacademy.ie/>
- 2 <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/pharmacyguidance/Interim%20guidance%20to%20minimise%20the%20risk%20of%20transmission%20of%20COVID-19%20infection%20in%20pharmacies.pdf>
- 3 <https://iiop.ie/h5p/106/embed>
- 4 <https://www.gov.ie/en/publication/bf337-covid-19-vaccination-strategy-and-implementation-plan/>
- 5 <https://www.ipsos.com/en-ie/ipsos-mrbi-veracity-index-2021-who-do-we-trust>

2.2.5 Japan: Japan Pharmaceutical Association



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

Japan Pharmaceutical Association (JPA) coordinated various policies in response to the pandemic and continued to collect and provide information by acting as a coordinator among national and local authorities/organisations.

JPA utilised remote meetings and continued to manage the activities despite the restricted travel transfer of the JPA officers.



Title of initiative

The project of providing guidance over the phone and delivering medicines to patients home.

Drivers and motivations behind this initiative

To maintain the system for providing/supplying medicines and to facilitate continuous medication therapy, while preventing infection among the public who hesitate to seek medical advice due to anxiety about infection, in COVID-19 pandemic. In addition to providing medication therapy to patients with COVID-19 infection who are treating COVID-19 at home.

Current status

This initiative is still in progress. Financial support of the national government for pharmacies has been reduced but is still ongoing to apply to many COVID-19 patients recovering at home

Impact

Many pharmacists are involved in out-of-hours deliveries, contributing to the maintenance of medication therapy for the public. Pharmacists undergo increased out-of-hours work and are at risk in contact with patients. Pharmacists support the policy of home and accommodation recovery, which is implemented as a result of occupancy of inpatient beds.

Challenges associated with implementation

Financial coverage and support for pharmacies to engage in the project are not sufficient.

Lessons learned

It is considered necessary for each local government to set up a plan in advance for the provision/supply of medicines in preparation for disasters and pandemics.

2.2.6 Lebanon: National Institute of Public Health, Clinical Epidemiology, and Toxicology



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

During the pandemic, INSPECT-LB (Institut National de Santé Publique, Epidémiologie Clinique et Toxicologie – Liban) leadership thought about shifting part of its work to target COVID-19. INSPECT-LB worked and collaborated on the following axes:

Health education and promotion to the general population: INSPECT-LB worked on developing guidance documents about COVID-19 in three languages (English, French, and Arabic) and dedicated a special subpage on its website to the pandemic. It also issued a special document regarding medication. See: <https://inspect-lb.org/covid-19-information/>

Guidelines for healthcare professionals regarding COVID-19 prevention, particularly for pharmacists. See: <https://inspect-lb.org/covid-19-information/>

Research projects regarding healthcare professionals' readiness to fight COVID-19 (including pharmacists), the general population's reaction to COVID-19 (mental health, physical health, social aspects...), knowledge, attitude, and practice regarding COVID-19, predictors of severity of COVID-19, vaccine acceptability predictors, ... Adding up the effect of the severe socio-economic crisis on the pandemic was also necessary, due to the shortage of medication and the breakdown of the health system it caused in Lebanon. The majority of the research projects were published in peer-reviewed journals and are available on Pubmed.

Participation in many national committees related to COVID-19 surveillance and vaccination, at the invitation of health authorities (the Ministry of Public Health and the Council of Ministers dedicated Committee) and universities (the Lebanese University, the only public university in Lebanon).



Title of initiative

COVID-19 and economic crisis research: a weighty burden on the Lebanese population

Drivers and motivations behind this initiative

COVID-19 had a quick onset in Lebanon, which needed a fast reaction from health authorities, healthcare professionals in general, and pharmacists in particular.

In the absence of a national strategy for disasters or guidance regarding COVID-19 research needs, many academic and hospital institutions conducted their own research related to COVID-19.

No visible action was noted by the pharmacists' professional association (The Lebanese Order of Pharmacists).

Access to COVID-19 surveillance data was prohibited by the Ministry of Public Health

The interrelation with the socio-economic deterioration of the Lebanese context added to the urgency of the situation, given the increased burden related to drug shortage and the deterioration of the healthcare system.

The situation is expected to affect infectious and chronic diseases, through increased morbidity and mortality burdens: direct reasons include lack of access to life-saving medications (including antibiotics and anticancer drugs), lack of adherence to chronic disease medications (such as antidiabetic and antihypertensive agents), in addition to high stress, lack of physical activity and sedentarity, food insecurity and food safety issues

Based on the abovementioned situation, and since the mission of INSPECT-LB is “to promote health-related multidisciplinary research and optimize professional practice in Lebanon”, we thought about shifting a part of our research potential to COVID-19.

Current status

The research projects related to COVID-19 are still ongoing, particularly those related to:

- Chronic diseases interrelated with COVID-19
- COVID-19 and obesity
- COVID-19 and pregnancy
- Drug shortage effect on chronic disease patients’ adherence to treatment
- COVID-19-related psychological concepts such as fear, stigma, and coping
- COVID-19 vaccine interaction with allergies and dermatologic diseases
- Long COVID symptoms predictors

More than 50 articles have been published so far by the team, and many are in preparation. These publications constitute evidence for strategic thinking by policymakers and relevant authorities. In fact, given the lack of disaster management and other strategies related to the pharmaceutical sector in a deteriorating country, and based on the generated evidence, the INSPECT-LB team is actively leading the development of a National Pharmaceutical Strategy in collaboration with the OPL and other stakeholders; the team is also working on a strategy for pharmacy education and workforce, and another one related to pharmaceutical research.

Impact

The COVID-19 crisis unveiled the frailty of the healthcare system in Lebanon, particularly in the context of the severe socioeconomic crisis. The research initiative had the following impact in Lebanon:

It helped in generating evidence regarding the current situation, disaster preparedness, and management by healthcare professionals. It unveiled the need for disaster preparedness, the need for health strategies, particularly in the pharmaceutical sector. It drove the pharmaceutical authorities (the OPL) to develop a national pharmaceutical strategy in close collaboration with INSPECT-LB members and in partnership with other involved stakeholders (the Ministry of Health, the pharmaceutical companies, the industrial sector, the patients’ organizations and the World Health Organization). It also led to the development of other strategies related to the pharmaceutical sector, mainly education & workforce, and research.

Challenges associated with implementation

Many challenges and barriers were encountered during the implementation of the research initiative, at different levels:

Population: difficult collaboration during data collection, particularly in remote regions and among less educated populations with poor access to power, internet and mobile technologies

Healthcare professionals (other than pharmacists): difficult collaboration, due to lack of time, conflicting interests and competitive attitude

Health authorities: access to data was prohibited; evidence-based recommendations were often not taken into account.

Thus, the implementation of recommendations and suggested strategies is difficult in the current context due to political turmoil, system collapse and institutional competition.

Lessons learned

Strategic thinking should have been implemented by pharmaceutical authorities and disasters should have been prevented. In the current context where strategies are absent, and public institutions are collapsing, efforts deployed in many sectors, including health research, are wasted. There is a clear need for a pharmaceutical research strategy in the country, among other strategies; based on this need, INSPECT-LB is now working on a strategy to be suggested to the health and educational authorities.

Additional information

Link to all publications and the one related to all COVID-19 documents:

<https://inspect-lb.org/publications/>

<https://inspect-lb.org/covid-19-information/>

2.2.7 Malaysia: Malaysian Pharmacists Society



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

With experience from the previous avian flu outbreaks and SARS/MERS, the MPS leadership considered continuity of leadership as a priority. As such, at the onset of the pandemic, leadership function was immediately transitioned to online platforms such as zoom, WhatsApp and online voting platforms.

The second priority is to disseminate information to our members and pharmacists. In that regard, guidelines on the management of COVID was adopted and published in both English and Malay and disseminated to all pharmacists via all possible media channels. The MPS existing social media platforms were strengthened for engagement to both pharmacists and the public.

The third priority was occupational health and safety for pharmacists to practice safely. To that regard, we initiated the sourcing, purchase, and distribution of face masks to all community pharmacies that requests for it as there was a shortage of face masks available. The MPS also engaged the government to successfully include pharmacists into the national COVID vaccination programs together with other front liners.

Finally, the last priority was to engage the public with regards to new health requirements such as face masks, testing and other needs to stay healthy amidst the changing conditions of the pandemic.



Title of initiative

Pharmacists as Vaccine Administrators and Certified Training on Immunisation for Pharmacists (CTPIP)

Drivers and motivations behind this initiative

The key drivers and motivations to this initiative is as follows: -

- Pharmacists are a key component of public health and has, prior to COVID-19, serve as advocators and knowledge
- However, due to prevailing practices, pharmacists were not given the right to administer vaccines to patients
- The ability for pharmacists to administer vaccines would greatly assist the proliferation of vaccines – thus safeguarding the public from communicable diseases
- Under pandemic situations, all healthcare professionals should be trained and have the ability to administer vaccines in order to maintain public help.

Current status

This initiative is still in progress. The government had included trained pharmacists in the administration of COVID-19 vaccines under the national vaccination program. Training of pharmacists under CTPIP and similar programs are continuing and the number of pharmacists that can administer vaccines are rising.

However, there is a need to continue advocating vaccine administration to include vaccines other than COVID-19 and make administration of vaccines a normal part of the pharmacist's role in public health.

Impact

The impact of the initiative is the expansion of the role of pharmacists in public health and it provides a valuable resource in the fight against COVID-19. In addition, once all pharmacists are trained in vaccine administration, pharmacists in hospitals and community pharmacists can play a part in furthering the access to vaccines.

Challenges associated with implementation

The ability for pharmacists to administer vaccines is limited to COVID-19 vaccines and was granted under pandemic / emergency conditions. There exists a need to maintain and expand this to other vaccines.

Another challenge is the classification of vaccines under Group B Poisons (Prescription only Medicines). This requires a pharmacist in a community setting to first obtain a script from a doctor to dispense and administer vaccines.

Finally, there exists a need to improve the recognition of the pharmacist right to administer vaccines and also to continue expanding the training of pharmacists – in particular for those in community pharmacy settings.

Lessons learned

Whilst the ability to administer vaccines was achieved, there exists the need to improve the practice environment and recognition of this role by pharmacists. This is a nascent role that was put into place under pandemic conditions.

On hindsight, the profession should have moved faster and put into place training and advocacy earlier. In addition, requests to international organisations such as FIP should have been done sooner and collaboration with neighbouring countries with pharmacist vaccinators (such as the Philippines) be initiated.

Additional information

Resources:

<https://learning4life.usm.my/qualifications/ctpip/>

<https://www.nst.com.my/news/nation/2021/04/685490/sign-ctpip-community-pharmacists-told>

<https://www.mps.org.my/newsmaster.cfm?&menuid=37&action=view&retrieveid=8101>

<https://codeblue.galencentre.org/2021/09/24/allow-community-pharmacies-to-vaccinate-and-authorise-covid-19-saliva-self-test-kit-results-mps/>

See Annex 6 for example of certified training programme on immunisation for pharmacists.

2.2.8 Malta: Malta Chamber of Pharmacists



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

At the onset of the pandemic in early March 2020, the Chamber Council decided to stop all F2F meetings and transfer all proceedings to Zoom and Teams platforms; these were also extended to all official and unofficial meetings with the authorities and members; the Malta Chamber statutes provide for a three year term of office; since the last election was held in 2019, there were three years of uninterrupted leadership to end 2022; however, in case of indisposition or demise of the President, immediate replacement by the Vice President, (or another Council member if the latter too is not able to take up the role) is also provided for by the statutes, until necessary or till new elections are undertaken or as decided by members in an EGM. Since early 2021, Covid-19 vaccination and booster doses have shifted the Chamber’s work to a mix of virtual and F2F activities.



Title of initiative

Paperless Collaborative Repeat Prescribing And Dispensing In The POYC Scenario
 With the onset of the Covid-19 pandemic, the Chamber, in consultation with the CEO, Medicines Authority, the A/CEO and Responsible Pharmacist, Pharmacy Of Your Choice (POYC) Unit and the Consultant Lead Psychiatrist, Community Services and Chairperson, Quality, Safety and Standards Committee Department of Psychiatry and the Clinical Chairman (Psychiatry), Dept. of Psychiatry, Ministry for Health, directed Pharmacists offering a POYC service to repeat dispense the medicines that registered patients were entitled to and whose POYC medication records were accessible on the POYC Web Based Pharmacy Dispensing System (WPDS). This effectively eliminated the necessity for a repeat prescription by a Consultant or family doctor, reducing document handling to a minimum to minimise contagion and streamline the repeat dispensing service. Where a prescription was deemed to be necessary, an email with a photo or scanned copy of a prescription was preferred.

Thus, Authority was obtained for pharmacists to repeat dispense without a doctor’s prescription and other relevant documents, empowering collaborative paperless repeat prescribing and dispensing within the scenario of the Pharmacy of Your Choice (POYC) national scheme which is supported digitally, by registered patients’ medication history in the form of a patient specific medicines entitlement web based dispensing window (WPDS). This was extended to Narcotics and Psychotropic medicines at the invitation of the Primary Health Care Psychiatry Community Service professionals referred to above.

Drivers and motivations behind this initiative

Safety, Seamless access to medicines and medical devices for chronic conditions; Continuity of Treatment; reduction of “revolving door syndrome” at main hospitals during the pandemic; compensation of the family doctor and consultant service deficit in the community resulting from the pandemic; combined recognition of pharmacists’ value, expertise and professionalism by the Chamber leadership and the health authorities; the pharmacy profession’s rise to the occasion, proof of a resilient profession, immediately responsive and adaptive to change, as expected; carpe diem “principle” applied to a coveted authority as a development in pharmaceutical care practice.

Current status

The initiative is still in progress; the Chamber's Directives, protocols and SOPs are still in place; the Chamber is working with the National Pharmacy of Your Choice Unit and the Primary Health Care Division and other authorities, not least members and other health care professionals to consolidate the practice development, identify loopholes not least in the legislation and policies.

Impact

The initiative was introduced early in the pandemic, to safeguard the community pharmacists and patients and carers from contagion by going paperless; and to ensure seamless, continued access to medicines by over 140K registered patients, with fine tuning of the protocols and SOPs after 6 months; it ensured that patients suffering from chronic conditions who were registered with the national POYC scheme and had difficulty to access the services of a family doctor or consultant for repeat prescriptions due to the pandemic, continued to receive their treatment through the pharmacy of their choice in their communities, where they were registered, without interruption or avoidable exacerbation of their conditions requiring admission to the main hospitals which were geared towards responding to the covid-19 pandemic; thus also avoiding the added danger of Covid-19 infection. The immediate extension of the initiative to patients suffering from mental health conditions, at the invitation of the national health Lead Psychiatrist, ensured continuity of treatment of this category of patients possibly reducing the impact of aggregated effects of the pandemic, though this is the hypothesis on which the initiative was introduced in the first instance and in this context, and merits further study. This initiative in toto is enabled by the support of the POYC digital system which is internet based and allows access to the medication records of each individual patient based on his or her entitlement. The initiative has placed the community pharmacist in focus as a highly resilient, versatile, professional health care resource, adaptable to change that has proved to be crucial for the ongoing management of the health of the population in an unprecedented pandemic.

Challenges associated with implementation

Acceptance to take up the role of collaborative repeat prescriber and dispenser without paper documentation from doctor by some pharmacists, albeit supported by the Chamber's directive, protocol and SOP; "just in time" updating of the POYC entitlement information; compliance by pharmacists, patients and doctors with issuing and auctioning pharmacists' referral notes where necessary (change in condition, need for review of treatment after six months, new prescription for change in treatment or new treatment/ patient); deficit in computerisation by family doctors in community precluding the introduction of e prescribing; consolidating the initiative with newly introduced MUR service; turning intra-/inter-professional challenges into opportunities of increased collaboration in the best interest of patients.

Lessons learned

The urgency of responding to the Pandemic did not allow for prior meetings or training of pharmacists who were being thrown at the deep end with day to day practice changes mainly through directives. Pharmacists have however risen to the occasion and proved to be adaptive, versatile, resilient and inventive. These were capitalised to the full. Promoting further collaboration of doctors and consultants in national and private practice through dialogue is considered a way forward; staggered, small group workshops are planned together with integration of the present initiative's protocol with the new MUR service resulting from the Chamber's new negotiated POYC contract 2022-2027. Collecting data on the outcomes of the new initiative and piloting this new integrated service for optimal implementation. This is to be considered this as work in progress.

2.2.9 Portugal: National Association of Pharmacies



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

From the beginning of the COVID-19 outbreak and when restrictions started in Portugal, a joint effort between all pharmaceutical and healthcare stakeholders was crucial to prevent medicines disruptions and support pharmacies to keep working with all safety measures implemented.

Bearing this in mind, different strategies were adopted by ANF to support pharmacies in helping patients to access their medicines and make them aware of the most updated information about the virus.

These strategies included (non-exhaustive):

- Developing updated technical and professional information to train and support pharmacies intervention;
- Publishing guidelines on the implementation of contingency plans to ensure pharmacies' continuous activity;
- Promoting new projects to guarantee access to medicines and vaccination with other organisations – government, hospitals, healthcare professionals, NGOs, and others;
- Collaborating with the Portuguese government and public health authorities to develop guidance on the COVID-19 national response;
- Advocating for the renewal of the electronic prescription of medicines by pharmacists during the validity of the state of emergency motivated by the pandemic of COVID-19.
- Establishing an Emergency Fund to help citizens that due to the COVID-19 pandemic have specific needs in their access to medicines, health products and services;
- Set up a pool of volunteers (pharmacy students and early career professionals) to help pharmacies that suffered short personnel due to pandemics;
- Creating new communication channels between pharmacists, pharmacies and patients (direct phone line – 1400);
- Dispensing specialty medicines which could be dispensed in community pharmacies and/or be home delivered, exempting patients from going to a hospital.
- Partnering with national health service (NHS) and municipalities to provide free COVID-19 antigen rapid tests (point-of-care) in pharmacies.



Title of initiative

Pharmaceutical service of rapid antigen testing for professional use (point-of-care) in the diagnosis of SARS-CoV-2 in community pharmacies with NHS referral.

Drivers and motivations behind this initiative

The early detection of cases of COVID-19 and their close contacts actively through a mass, effective and inclusive testing strategy played a critical role in the efficient control of transmission chains. In October 2020, the Portuguese government included the rapid antigen test in the country's national strategy for detecting COVID-19. However, given the extraordinary number of cases, it was essential to strengthen and expand the laboratory diagnosis network by creating an increased testing capacity, which allows detecting and responding to outbreaks in Portugal quickly and efficiently.

Following the publication of technical guidelines on the operationalisation procedures for the service, community pharmacies duly authorised and registered at the Regulatory Health Agency (ERS) could perform testing and provide this service to the population.

Acknowledging the pharmacy network's availability, proximity, and capacity in providing the service for SARS-CoV-2 detection, several entities, as part of their strategy to combat the COVID-19 pandemic, have launched various initiatives in collaboration with pharmacies to test their beneficiaries or citizens.

One of the main drivers and motivations for this initiative was to integrate community pharmacies, not only into the network of places where the service of rapid antigen testing (point-of-care) for the diagnosis of SARS-CoV-2 is performed, with notification through the National System for Epidemiological Surveillance (SINAVE), but also for the first time into the communication system used by the NHS.

Current status

This initiative is still in progress. Until June 2022, half of the pharmacies in the country (1 500) have available the service of rapid antigen testing for the diagnosis of SARS-CoV-2, with more than 12 million tests performed.

This service has been reimbursed by the Portuguese government since June 2021. At the start, without a medical prescription and with a limited number of tests per citizen. ANF supported pharmacies by sharing guidelines on the best practices in performing antigen rapid tests. During the summer, pharmacies became an essential partner in economic and social recovery.

From January 2021 onwards pharmacies were included in the testing effort by being able to perform rapid antigen tests inside the pharmacy. In order to be able to perform rapid tests, pharmacies needed to comply with several rules:

Registration in the Regulatory Health Agency (ERS). All the results from all the tests performed have to be communicated to the Public Health authorities: The SINAVE database (National epidemiological health database), NHS and the prescribing doctor. This was a major achievement, as pharmacies were integrated into the national notification database, in the same conditions as the remaining health entities, in order to report the results back to national health authorities.

In addition to the specific protocols with municipalities and regions, rapid tests started to be reimbursed by the NHS.

The national government reimbursement aimed to remove financial constraints and facilitate citizens' access to the European Union (EU) COVID Digital Certificate issuance. People who did not yet meet the conditions for issuing a vaccination certificate to obtain a test result, ensuring permission to circulate within the national territory, as well as the use in air and sea traffic and events.

At the national level, ANF has made available new support materials to pharmacies when performing antigen rapid tests. During this project several digital resources were developed during this time to support pharmacies in notifying test results to public authorities, communicating results to citizens and managing the logistics of this service.

From May 2022, the government reimbursement needs a valid NHS prescription.

Impact

This initiative has significantly strengthened the country's testing capacity, proving that community pharmacies have been fundamental in the fight against the pandemic in the country. Together with other measures adopted during the most critical phases of pandemics, it demonstrated, once again, that the inclusion of pharmacies through the existing and well-trained pharmaceutical workforce in all regions of the country is a resource that the health system cannot afford to waste.

The pharmacy profession had enormous visibility, with the pharmacy being one of the preferred points for testing by citizens. A study developed on the initiative shows that in the scenario without the participation of pharmacies, the average distance of each person to the closest place for testing is 3.7 km, decreasing to 1.8 km with the inclusion of pharmacies. In the scenario without pharmacies, only with a laboratory and other entities, there are several municipalities, with average distances between 25.3 km and 41.7 km.

The Gini index for the distribution of access hours without the participation of pharmacies, in an analysis by municipalities, would be 0.42, decreasing to 0.26 with their inclusion (reduction of about 39% as inequality). There was also a greater reduction in the measure of inequality in the subgroups of municipalities with lower population density (-43.3%), higher ageing rate (-51.3%) and lower power per capita purchase (-54.6%).

The inclusion of pharmacies, in addition to greatly increasing coverage (higher average number of locations per municipality), proximity (shortening distances to populations) and availability (extending average number of hours of access), also represents a distribution of the access to much less unequal professional use rapid antigen testing (point-of-care) for SARS-CoV-2 detection.

Challenges associated with implementation

After overcoming the legal and regulatory barriers, the main challenges associated with the implementation of this service were:

1. Registration of pharmacies in the Regulatory Health Agency (ERS);
2. Communication of test results to the Public Health authorities: SINAVE database, NHS and the prescribing doctor - this was a significant breakthrough, as pharmacies were integrated into the national notification database, in the same conditions as the remaining health entities, to report the results back to national health authorities;
3. Lack of logistical means available (technical staff and equipment);
4. Non-attractive remuneration for the service (due to low government reimbursement), which influenced the number of pharmacies willing to implement the service.

Lessons learned

The results of this initiative show that pharmacies make it possible to fill geographic and socioeconomic gaps in the coverage of the national territory. Without the pharmacies, the provision of this service to the population would have covered the mainland with significant gaps, further increasing inequalities in already more vulnerable groups of the population.

The development of structured communication and digital channels for patient referral between pharmacies and the NHS is critical for an integrated approach.

Therefore, the ability of health authorities and the government to remunerate services provided by community pharmacies in greater proximity has very good results not only regarding patients' health results but also in terms of sustainability of the health system, by reducing the weight of the pandemic in the NHS.

Additional information

Additional resources:

[Agendamento Farmácias Portuguesas](#)

Portaria n.º 151-B/2022 (<https://dre.pt/dre/legislacao-consolidada/portaria/2022-185601728>);

Portaria n.º 255-A/2021 (<https://dre.pt/dre/legislacao-consolidada/portaria/2021-175399162>);

[INFARMED: Testes COVID-19](#)

[Circular Informativa Conjunta -](#)



2.2.10 Portugal: Portuguese Pharmaceutical Society



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

One of the first actions in the beginning of the pandemic, the National Pharmacies Association (ANF) and the Portuguese Pharmaceutical Society collaborated to provide information regarding prevention and update on the outbreak status. ANF's Medicine Information Centre (CEDIME), shared a brief explanation of the disease and the way it spreads, and how the pharmacist should act. The Portuguese Pharmaceutical Society also released recommendations with all pharmacists in daily newsletters, overlooking the global pandemic and specific actions to implement. Meanwhile, the National Authority of Medicines and Health Products (Infarmed) focused on writing guidelines and technical information to pharmacists in various areas.



Title of initiative

The Help Desk (Gabinete de Apoio ao Farmacêutico) was created by the Portuguese Pharmaceutical Society in partnership with all sectorial Associations – National Association of Pharmacies, Portuguese Association of Hospital Pharmacists, Portuguese Association of Pharmacies, Portuguese Association of Full-Service Pharmaceutical Distributors, Portuguese Association of Clinical Analysts, Portuguese Speaking Countries Pharmacists' Association, Patients Organisation and Portuguese Pharmaceutical Students Association. The Speciality Board of Community Pharmacy, the Speciality Board of Hospital Pharmacy, and the Speciality Board of Clinical Analysis and Human Genetics, key areas of pharmaceutical assistance, played an important role, in liaison with the areas of practice. These Speciality Boards were responsible for, in liaison with the proper sectorial associations, issuing the contingency plans for each practice area.

In the scope of this Help Desk, a new free Help Line (LAF – Linha de Apoio ao Farmacêutico) was created in order to support pharmacists. All support was given by pharmacists with specific training on this subject. Between 9 am and 7 pm the support line answered professional, technical and scientific questions of community pharmacists. After 7 pm, the attention went to the support of hospital pharmacists and clinical analysts. This Help Line began its work on March 16th and answered 154 questions on its first day. A week later, over 1.200 calls had been taken, with a majority (77%) of questions being asked by Community Pharmacists, followed by Hospital Pharmacists and Pharmacists working in Clinical Analysis. It was also created a Volunteers Database, composed of pharmacists and last years' pharmacy students, aiming at reinforcing, and providing technical support to Pharmacists. The volunteers were working closely with both the Hospital Pharmacy Teams and the Pharmacist's Help Line.

Drivers and motivations behind this initiative

The Help desk started to work on several other measures directed to professionals who were in pharmacies, hospitals, and clinical analysis laboratories. In addition to periodically sending technical information and guidelines issued by the health authorities, Contingency Plans, checklists for professional intervention, frequently asked questions, and information materials for the public and professionals were permanently updated. In short, this project was created to increase health literacy among all pharmacists and help with logistical aspects arising from the new reality.

Initial information were required regarding what the COVID-19 virus is and how it acts and spread, the role of Personal Protective Equipment (PPE), how other countries around the world handle the pandemic, etc.

Clinical reviews of different candidate treatment waves were highlighted and the evidence-based medicine approached explained by experts.

Later on, when vaccination was anticipated, pharmacists were faced with many question from patient and the public about how immunisation work, whether it be safe and tested, how it was developed, which vaccine the country will source, etc.

In essence, access of reliable information was in great need.

Current status

The initiative has been closed.

Impact

This Help Desk improved the communication between pharmacists and made them feel well informed to better help other people. The free Help Line had an amazing success among pharmacists.

Challenges associated with implementation

In the beginning, considering how little information was available about COVID-19, it was difficult to outline a strategy involving so many different entities. Nevertheless, as more information on the subject started to appear, all associations and Speciality Boards involved focused on their area of expertise, and a robust structure that would truly support pharmacists was concretely assembled.

Lessons learned

After the implementation of the help desk, the Portuguese Pharmaceutical Society considers that it could have invested in monitoring the outcomes of the implementation of this project, since no project report was carried out after its conclusion.

South Africa: Pharmaceutical Society of South Africa



During the pandemic, many significant changes occurred, and organisations were forced to rethink some strategies, especially when it comes to operating and strategizing. Could you share with us some strategies and principles your leadership has adopted to cope with the pandemic and its challenges? For example, to ensure continuous leadership throughout the pandemic, what actions have you taken?

With all staff working from home, the needed infrastructure was needed to ensure business can continue uninterrupted. All staff remained accessible to all members during the entire pandemic. The office had to change computers to laptops, ensure internet access to colleagues, adopt apps to access office phones, and move data and information to clouds to be more paperless.



Title of initiative

Online webinars

Drivers and motivations behind this initiative

During the first few weeks of the COVID-19 pandemic, there was a great need for access to information on the pandemic, the country's approach, healthcare strategies, treatment options and preventative measures. During this time the National Department of Health was the leading decision maker on behalf of the country, which resulted in a slow flow of information, and healthcare professionals on the ground being left out of the loop.

Initial information were required regarding what the COVID-19 virus is and how it acts and spread, the role of Personal Protective Equipment (PPE), how other countries around the world handle the pandemic, etc.

Clinical reviews of different candidate treatment waves were highlighted and the evidence-based medicine approached explained by experts.

Later on, when vaccination was anticipated, pharmacists were faced with many question from patient and the public about how immunisation work, whether it be safe and tested, how it was developed, which vaccine the country will source, etc.

In essence, access of reliable information was in great need.

Current status

Since the pandemic, and the global shift and acceptance of the virtual and online world, the webinars hosted by PSSA will continue. In fact, the webinars solve a very big membership benefit problem PSSA faced for years as we had difficulty ensuring all our members, even those situated in rural areas, have access to the benefit of continuing professional development (CPD) events. With the increased danger of driving at night, and hectic family schedules, it is not possible for members to attend trainings face to face. Webinars offer a reduced commitment in terms of time and the opportunity to access the recording in case of uncertainties, or if it was not possible to attend the live event.

Impact

No other organisation was geared to offer these online tools to members. Luckily, PSSA had this platform since 2017 and was trained in how to host webinars. Over the past 30 months, 60 webinars were hosted with more than 7 000 attendees, and almost 4 000 recording views.

Challenges associated with implementation

The best time to host these webinars is after working hours at night at 19h00 South African time. This means that a time commitment from the responsible staff members is required to prepare for the webinar, sometimes offer a dry run event to the speakers, and then host the webinar through the platform.

Lessons learned

What worked well was a template for all the information that is needed to set a webinar e.g. topic, speaker information, background, session objectives, etc. This assisted stakeholders and hosts of events to collect all the necessary information. The second important lesson is to always offer a dry run to speakers. They are mostly familiar with other platforms and may get confused with how to share their screen, etc.

3 Forward-looking conclusion

In all crises, there are also opportunities for professions to step up and deliver. In this case, the COVID-19 pandemic has given pharmacy profession the opportunity to demonstrate the value of its contribution to health care teams and health systems. Laws and regulations of the scope of practice of pharmacists have been quickly adapted in many parts of the world to allow pharmacists to deliver services that the profession had been claiming for a long time: from performing repeat dispensing of medicines to patients with chronic conditions, to dispensing medicines at community pharmacies that usually require patients to collect them at hospitals, and from home delivery of medicines supplemented with telepharmacy services, to the administration of vaccines for other respiratory diseases to expanded population groups; and from performing point-of-care screening tests to the expanded authority to mitigate medicines shortages by substituting a medicine in shortage for a suitable alternative. Importantly, the pandemic has highlighted not only the impact pharmacies have on expanding vaccination coverage, but in some cases also accelerated the delivery of pharmacy-based vaccination.

This report provided a summary of FIP's response to the COVID-19 pandemic, primarily in terms of how we supported our members. It also showcases numerous country examples of national responses and strategies. FIP will continue to support its members through public health emergencies and will focus our efforts on future pandemic preparedness and continued recovery.

Annexes

Annex 1: List of participating member organisations

| Region | Country | Member Organisation |
|-----------------------|--------------------------|---|
| Africa | Algeria | Fédération Algérienne de Pharmacie |
| Africa | Cape Verde | Pharmaceutical Order of Cape Verde |
| Africa | Ghana | Pharmaceutical Society of Ghana |
| Africa | Kenya | Pharmaceutical Society of Kenya |
| Africa | Rwanda | National Pharmacy Council Rwanda |
| Africa | South Africa | Pharmaceutical Society of South Africa |
| Americas | United States of America | American Association of Colleges of Pharmacy |
| Americas | Argentina | Argentinian Pharmaceutical Confederation |
| Americas | Canada | Canadian Pharmacists Association |
| Americas | Costa Rica | Colegio de Farmacéuticos de Costa Rica |
| Americas | Uruguay | Asociación de Química y Farmacia del Uruguay |
| Americas | United States of America | American Society of Health-System Pharmacists |
| Eastern Mediterranean | Egypt | Egyptian Foundation of Clinical Pharmacy |
| Eastern Mediterranean | Egypt | Egyptian organisation of pharmacy, development and training |
| Eastern Mediterranean | Lebanon | Institut National de Santé Publique, d'Épidémiologie Clinique et de Toxicologie - Liban |
| Eastern Mediterranean | Pakistan | Pakistan Pharmacists Association |
| Eastern Mediterranean | Somali | Somali Pharmacists Association |
| Europe | Belgium | European Association of Hospital Pharmacists |
| Europe | Belgium | Association of Pharmacists Belgium |
| Europe | Cyprus | Cyprus Turkish Pharmacists' Association |
| Europe | Denmark | Pharmadanmark |
| Europe | Denmark | The Association of Danish Pharmacies |
| Europe | Finland | The Finnish Pharmacists' Society |
| Europe | France | French Chamber of Pharmacists |
| Europe | Hungary | Hungarian Society for Pharmaceutical Sciences |

| Region | Country | Member Organisation |
|-----------------|-----------------|--|
| Europe | Ireland | Irish Pharmacy Union |
| Europe | Israel | Pharmaceutical Association of Israel |
| Europe | Italy | Federfarma |
| Europe | Kosovo | Kosova Chamber of Pharmacists |
| Europe | Malta | Malta Chamber of Pharmacists |
| Europe | Montenegro | Pharmaceutical Chamber of Montenegro |
| Europe | The Netherlands | Koninklijke Nederlandse Maatschappij ter bevordering der Pharmacie |
| Europe | Norway | Norwegian Pharmacy Association |
| Europe | Portugal | National Association of Pharmacies |
| Europe | Portugal | Portuguese Pharmaceutical Society |
| Europe | Romania | Ethica Independent Pharmacies Association |
| Europe | Russia | Moscow Pharmaceutical Society |
| Europe | Slovenia | Slovensko Farmaceutvsko Drustvo |
| Europe | Spain | General Pharmaceutical Council of Spain |
| Europe | Sweden | Swedish Pharmacists Association |
| Europe | Switzerland | pharmaSuisse |
| Europe | United Kingdom | Academy of Pharmaceutical Sciences |
| South East Asia | India | Indian Association of Pharmaceutical Scientists and Technologists |
| South East Asia | India | Indian Pharmaceutical Association |
| Western Pacific | Australia | Australasian Pharmaceutical Science Association |
| Western Pacific | China | Chinese Pharmaceutical Association |
| Western Pacific | Japan | The Academy of Pharmaceutical Science and Technology, Japan |
| Western Pacific | Japan | Japan Pharmaceutical Association |
| Western Pacific | Japan | The Pharmaceutical Society of Japan |
| Western Pacific | Malaysia | Malaysian Pharmacists Society |
| Western Pacific | Singapore | Pharmaceutical Society of Singapore |
| Western Pacific | South Korea | The Korean Pharmaceutical Association |

Annex 2: COVID-19 taskforce members

1. Chair: Jane Dawson, FPS – FIP Military and Emergency Pharmacy Section, New Zealand
2. Marwan Akel, Lebanese International University, Lebanon
3. Julien Fonsart, FIP Clinical Biology Section President, France
4. Scarlett Pong, Pharmaceutical Society of Hong Kong
5. Eduardo Savio, Uruguayan Association of Chemistry and Pharmacy, Uruguay
6. Lars-Åke Söderlund, FIP Community Pharmacy Section President, Sweden
7. Gonçalo Sousa Pinto, FIP Lead for Practice Development and Transformation
8. Jacqueline Surugue, FIP Vice President, Hospital Pharmacist, France
9. Zhao Rongsheng, Peking University Third Hospital, Pharmacy Department; Deputy Chairman of the Hospital Pharmacy Committee of Chinese Pharmaceutical Association; Deputy chairman of Committee of Evidence Based Pharmacy of the Chinese Pharmaceutical Association, China

Annex 3: List of Global Expert Advisory Group members

| Name | Country | Expertise area |
|--------------------------|----------------|--|
| Dominique Jordan | Switzerland | Expert advisory group co-chair |
| Catherine Duggan | Netherlands | Expert advisory group co-chair |
| Eeva Terasalmi | Finland | Community pharmacy practice and contingency plans |
| Ryan Forrey | United States | Hospital pharmacy practice and contingency plans |
| Jaime Acosta-Gómez | Spain | Community pharmacy and contingency plans & Supply chain of medicines and medical devices |
| Lars-Åke Söderlund | Sweden | Policy development and economic impact & Community pharmacy practice and contingency plans |
| Julien Fonsart | France | Diagnostic testing & Therapeutic options and vaccines |
| John Grabenstein | United States | Therapeutic options and vaccines & Infomedic and vaccine hesitancy response |
| Sylvain Grenier | Canada | Military and Emergency Pharmacy |
| Trevor Jones | United Kingdom | Therapeutic options and vaccines |
| Victoria Garcia Cardenas | Australia | Policy development and economic impact, Community pharmacy practice and contingency plans, Education and workforce development |
| Jasminka N Sarunac | Australia | Hospital pharmacy practice and contingency plans |
| Petra Straight | United Kingdom | Infection prevention and control & Policy development and economic impact |
| Ally Dering-Anderson | United States | Diagnostic testing |
| Ian Bates | United Kingdom | Education and workforce development, Hospital pharmacy practice and contingency plans |
| Shaun Gleason | United States | Education and workforce development |
| Khalid Garba Mohammed | Italy | Education and workforce development |

Annex 4: Global Expert Advisory Group members Terms of References

1. Mission

The FIP COVID-19 Global Expert Advisory Group will provide strategic advice and support to FIP on COVID-19 response and activities, share concerns and best practices and support FIP with resolving emerging enquiries from FIP members and the global health community.

2. Objectives

The main objectives of the FIP COVID-19 Global Expert Advisory Group (herein referred to as Expert Group) are to:

- 2.1 Enhance understanding of the COVID-19 pandemic and its impact on pharmacy practice, pharmaceutical sciences and pharmacy education;
- 2.2 Share knowledge and evidence on COVID-19 response and preparedness measures, significant gaps, inconsistencies or inadequacies in measures taken in all sectors of pharmacy and from all members of the pharmaceutical workforce;
- 2.3 Support generation of COVID-19 communications to be addressed to FIP members in a coordinated and collaborative manner, in line with the different stages of the COVID-19 pandemic by taking into account particular country and regional contexts;
- 2.4 Advise FIP Leadership and the FIP HQ COVID-19 Core Team in matters related to COVID-19;
- 2.5 Liaise with FIP Sections/SIGs and FIPeD to align activities, deliverables and outputs in a coordinated manner;
- 2.6 Provide advice on addressing and mitigating medium- and long-term impact of COVID-19 on pharmacy and global health.

The Expert Group is not set up to provide direct recommendations to governments or global, regional or national organisations, rather to advise FIP where they will be adopted as FIP recommendations. The activities of the Expert Group will complement and capitalise on the FIP COVID-19 Programme of Work (Annex 1).

3. Membership of the Expert Group

The Expert Group will consist of members of BPP, BPS and FIPeD, FIP YPG, FIP Regulators Forum and FIP Technology Forum; FIP key stakeholders (e.g. chief pharmacists, partners) based on their expertise area. FIP HQ COVID-19 Core Team members will join the Expert Group and relevant Reference Groups (see Point 5) based on the FIP programme areas that they lead.

The Expert Group will be composed of up to 15 experts, with due consideration of geographical and gender diversity, from areas such as;

| Priority Areas | Topics to be covered |
|--|--|
| 1. Therapeutic options and vaccines | Treatment options and vaccines that are currently available or under R&D. Expertise is desirable in the following areas: clinical biology/virology, immunology, vaccine development and use, pharmacology, medicines and health information, medicines availability and supply |
| 2. Diagnostic testing | Tests that are currently available or under R&D, including testing strategies during and after the pandemic, including point-of-care rapid tests in addition to PCR/RT-PCR; and other technology and innovation |

| | |
|---|--|
| | Expertise is desirable in the following areas: clinical biology, immunology, diagnostic technology |
| 3. Infection prevention and control | Includes PPE strategies for pharmacies and workplaces, cleaning and disinfection management, etc. Expertise is desirable in the following areas: Infectious disease management, health and safety, clinical biology, epidemiology |
| 4. Policy development and economic impact | Includes calls to governments, emergency preparedness and crisis management, epidemiology and public health, availability of medicines, risk communication and social engagement advice on FIP policy, economic mitigation strategies, interprofessional collaboration, medicines availability and supply, etc. |
| 5. Community pharmacy practice and contingency plans | Includes the participation of pharmacies during and post pandemic |
| 6. Hospital pharmacy practice and contingency plans | Includes the participation of pharmacies during and post pandemic |
| 7. Education and workforce development | Includes mitigation strategies for disruption of education, online learning/assessment strategies, availability of workforce and CPD; and technology and innovation |
| 8. Supply chain of medicines and medical devices | Includes mitigation strategies for shortages and effective supply chain management |

Based on the emerging and evolving needs, the Expert Group Chair(s) may appoint new members to the Expert Group as FIP requires.

Members will be appointed in a personal capacity. Since it is not possible to organise a call for applications given the urgency presented by the pandemic, the members of the panel will be recommended by the BPP, BPS and FIPEd chairs immediately from persons with acknowledged expertise in the mentioned sectors.

The Expert Group Chair(s) may ask multidisciplinary experts and members of the other health care professions to join the Expert Group as observers on a need basis. External stakeholders (e.g. donors, foundations, private sector) may be invited to the committee, if deemed appropriate by the Expert Group Chair(s), depending on the topics that will be discussed.

4. Ways of working of the Expert Group

- 4.1** The Expert Group will be co-chaired by the FIP President and the FIP CEO;
- 4.2** The Expert Group will establish and steer its agenda and action plan, aligned with FIP COVID-19 Programme of Work priorities, considering latest data or scientific references for the focus area and specific high priority questions for the group to discuss and decide;
- 4.3** Relevant decisions and/or action items of the Expert Group will be sent by the Chair to be included in weekly updates to FIP members about COVID-19;
- 4.4** Designated members of the FIP HQ COVID-19 Core Team may provide input to the Expert Group;
- 4.5** The Expert Group shall meet virtually at least fortnightly or on ad-hoc basis when needed;
- 4.6** To ensure engagement and delivery, Expert Group Chair(s) will agree with every member of the group for a time that they will be able to commit.
- 4.7** Expert Group members shall serve until the end of 2020. The term for the members will be assessed by the Chair(s) in due to time based on the course and continuation of the COVID-19 global crisis.
- 4.8** FIP will provide technical, administrative and logistical support.

5. Reference Groups

- 5.1** The Expert Group may set up temporary or permanent reference groups with tasks and functions to address specific issues with various outputs in the priority areas defined above or others that may be considered necessary.

- 5.2 FIP Guidance on COVID-19 Taskforce has been established as an immediate response to COVID-19. Experts who served in the FIP Guidance on COVID-19 Taskforce may be invited to join various reference groups based on their expertise areas.
- 5.3 Each reference group will be consisted of 5 to 7 experts, with due consideration of geographical and gender diversity.
- 5.4 Members of the reference group may be appointed by the Expert Group or FIP may issue a call to its members, partners and other stakeholders in its network to recruit experts.
- 5.5 Each reference group will be led by one of the Expert Group members.
- 5.6 Designated members of the FIP HQ COVID-19 Core Team may provide input to the Reference Group
- 5.7 The Reference Groups may meet virtually on ad-hoc basis when needed;
- 5.8 To ensure engagement and delivery, Reference Group Lead will agree with every member of the group for a time that they will be able to commit.
- 5.9 Reference Group members shall serve until the end of the identified task area and output. The term for the members will be assessed by the lead in due to time based on the course and continuation of the COVID-19 global crisis.
- 5.10 FIP will provide technical, administrative and logistical support.

6. Planned activities and outputs

Key activities and outputs that the Expert Group and the relevant Reference Group members are to (but not limited to):

- 6.1 Provide advice and support for the implementation and dissemination of the FIP call to action to support pharmacists and pharmacy workers on the coronavirus/COVID-19 frontline (Annex 2)
- 6.2 Continue updating the FIP Guidance on COVID-19 on a regular basis with emerging updates and new information;
- 6.3 Support the delivery of their advice and recommendations through webinars, live broadcasts, blogs etc.
- 6.4 Provide advice and support on emerging enquiries from FIP members and global health organisations on COVID-19;
- 6.5 Provide input into FIP weekly COVID-19 communications and surveys to FIP members;
- 6.6 Prepare, publish and disseminate reports of the survey findings;
- 6.7 Write articles to be published in the FIP International Pharmacy Journal (and possibly other journals) presenting the main findings and key messages;
- 6.8 Produce reports, guidelines and/or other publications of relevance to emerging COVID-19 issues, including updating the FIP Guidance on COVID-19 on a regular basis
- 6.9 Advise FIP leadership and the FIP HQ team on key issues related to COVID-19;
- 6.10 Produce an activity report for the FIP Council at the end of their mandate.

7. Financing of the Expert Group

The operational costs of the Expert Group will be covered by the FIP central budget.

Annex 5: List of COVID-19 programmes digital events (2020-2022)

| Event name | Event Date | Link to event page |
|---|------------|---|
| Coronavirus 2019-nCoV: How can pharmacists help control the outbreak? | 10-Feb-20 | https://events.fip.org/previous-fip-digital-events/?event=416 |
| FIP guidance on COVID-19 for pharmacists and the pharmacy workforce | 08-Apr-20 | https://events.fip.org/previous-fip-digital-events/?event=432 |
| Experience Sharing of COVID-19 from China: Medicine & Pharmacist | 15-Apr-20 | https://events.fip.org/previous-fip-digital-events/?event=434 |
| ¿Cuál es el aporte del farmacéutico asistencial en la pandemia por COVID-19? | 15-Apr-20 | https://events.fip.org/previous-fip-digital-events/?event=435 |
| Remote & online education in trying times: Sharing and learning from each other | 22-Apr-20 | https://events.fip.org/previous-fip-digital-events/?event=436 |
| Mass vaccination campaigns | 23-Apr-20 | https://events.fip.org/previous-fip-digital-events/?event=438 |
| Role of regulators in addressing the WHO Patient Safety Challenge | 24-Apr-20 | https://events.fip.org/previous-fip-digital-events/?event=439 |
| Comunicar COVID-19 desde la farmacia de comunidad. Comunicación en crisis | 29-Apr-20 | https://events.fip.org/previous-fip-digital-events/?event=441 |
| Hearing from our heroes. Pharmacists fighting COVID-19 at the frontline | 29-Apr-20 | https://events.fip.org/previous-fip-digital-events/?event=440 |
| Pharmacy's fight against COVID-19 in the USA | 30-Apr-20 | https://events.fip.org/previous-fip-digital-events/?event=442 |
| Hearing from our heroes: Mental health and resilience of the workforce | 06-May-20 | https://events.fip.org/previous-fip-digital-events/?event=443 |
| Young pharmacists and scientists at the helm of a pandemic showcasing innovations & collaboration | 07-May-20 | https://events.fip.org/previous-fip-digital-events/?event=444 |
| Communicating COVID 19 risk to promote positive behaviour change | 13-May-20 | https://events.fip.org/previous-fip-digital-events/?event=448 |
| Experiential education in trying times It can be done! Let's explore how | 15-May-20 | https://events.fip.org/previous-fip-digital-events/?event=449 |
| Hearing from our heroes Pharmacists on the Frontline during the Pandemic in Pakistan | 21-May-20 | https://events.fip.org/previous-fip-digital-events/?event=451 |
| Part 2 Remote & online education during COVID 19 "How to" suggestions | 28-May-20 | https://events.fip.org/previous-fip-digital-events/?event=453 |
| Impact of COVID-19 on pharmacy education: Perspective from students & academics | 03-Jun-20 | https://events.fip.org/previous-fip-digital-events/?event=457 |
| Hearing from our heroes: Students and young pharmacists on the frontline Part 1 | 09-Jun-20 | https://events.fip.org/previous-fip-digital-events/?event=460 |

| Event name | Event Date | Link to event page |
|---|------------|---|
| World pharmacists' COVID-19 online meeting | 10-Jun-20 | https://events.fip.org/previous-fip-digital-events/?event=477 |
| Challenging the narrative on leadership in gender equity during the COVID-19 pandemic | 11-Jun-20 | https://events.fip.org/previous-fip-digital-events/?event=461 |
| COVID-19: Women front and center. | 17-Jun-20 | https://events.fip.org/previous-fip-digital-events/?event=464 |
| The rise of substandard & falsified medical products during the COVID-19 pandemic | 18-Jun-20 | https://events.fip.org/previous-fip-digital-events/?event=469 |
| Good pharmacy practice during the COVID-19 pandemic | 22-Jun-20 | https://events.fip.org/previous-fip-digital-events/?event=473 |
| COVID-19 for hospital pharmacists and health-systems: The medication use process | 24-Jun-20 | https://events.fip.org/previous-fip-digital-events/?event=475 |
| #AfricaTogether Pharmacy against COVID-19 | 25-Jun-20 | https://events.fip.org/previous-fip-digital-events/?event=481 |
| MyDispense: A virtual simulation to teach pharmacy students across the globe | 01-Jul-20 | https://events.fip.org/previous-fip-digital-events/?event=483 |
| Key considerations for developing COVID-19 treatments: learning from the past and planning for the future | 07-Jul-20 | https://events.fip.org/previous-fip-digital-events/?event=489 |
| Remote Laboratory Courses Across Pharmacy Schools During COVID-19: Are You Ready? | 15-Jul-20 | https://events.fip.org/previous-fip-digital-events/?event=500 |
| Return to Pharmacy Education: Planning for the Upcoming Academic Year | 21-Jul-20 | https://events.fip.org/previous-fip-digital-events/?event=496 |
| Medicine supply disruptions and shortages during the pandemic | 22-Jul-20 | https://events.fip.org/previous-fip-digital-events/?event=497 |
| The Rise of Substandard & Falsified Medical Products during the COVID-19 (Part2) | 24-Jul-20 | https://events.fip.org/previous-fip-digital-events/?event=507 |
| Evidence-based practice during the COVID-19 pandemic | 29-Jul-20 | https://events.fip.org/previous-fip-digital-events/?event=510 |
| Addressing inequities in pharmacy education due to COVID-19 – Learnings from Africa, Asia and Latin America | 05-Aug-20 | https://events.fip.org/previous-fip-digital-events/?event=518 |
| Efectos del COVID-19 en la salud de los profesionales sanitarios y estrategias futuras de prevención | 26-Aug-20 | https://events.fip.org/previous-fip-digital-events/?event=712 |
| Pharmacy Practice Research priorities during the COVID-19 pandemic | 26-Aug-20 | https://events.fip.org/previous-fip-digital-events/?event=533 |

| Event name | Event Date | Link to event page |
|---|------------|---|
| The immediate global impact of COVID-19 on higher education institutions & workforce development | 07-Sep-20 | https://events.fip.org/previous-fip-digital-events/?event=543 |
| COVID-19 Complex Case Presentations | 28-Sep-20 | https://events.fip.org/previous-fip-digital-events/?event=572 |
| Avances en el desarrollo de vacunas contra COVID-19 e importancia de la vacunación en tiempos de pandemia | 07-Oct-20 | https://events.fip.org/previous-fip-digital-events/?event=711 |
| Covid-19: toma de decisiones en ausencia de evidencia científica. Farmacovigilancia y tecnovigilancia como herramientas para evaluación de riesgo | 13-Nov-20 | https://events.fip.org/previous-fip-digital-events/?event=628 |
| COVID-19 Guidance on Evaluation of Diagnostic Testing & Methods | 20-Nov-20 | https://events.fip.org/previous-fip-digital-events/?event=635 |
| Self-care: managing mild COVID-19 symptoms, dispelling the myths | 24-Nov-20 | https://events.fip.org/previous-fip-digital-events/?event=637 |
| Unleashing resilience in pharmacy: global perspectives | 04-Dec-20 | https://events.fip.org/previous-fip-digital-events/?event=652 |
| Resiliency in the face of COVID-19 – Pharmacy technicians rise to the global crisis | 11-Dec-20 | https://events.fip.org/previous-fip-digital-events/?event=659 |
| Innovative cultural sensitivity training for pharmacy students | 20-Apr-21 | https://events.fip.org/previous-fip-digital-events/?event=715 |
| Virtual delivery in class: Spicing up lectures in an online environment and maintaining the quality and standards as an academic pharmacy leader | 05-May-21 | https://events.fip.org/previous-fip-digital-events/?event=746 |
| Hearing from our heroes: Students and young pharmacists on the frontline Part 2 | 18-May-21 | https://events.fip.org/previous-fip-digital-events/?programme=5&eventCategory=0 |
| Drugs to tackle a pandemic – something old and something new | 03-Jun-21 | https://events.fip.org/previous-fip-digital-events/?event=749 |
| If you knew then what you know now: Sharing and assessing one year of remote and online learning | 08-Jun-21 | https://events.fip.org/previous-fip-digital-events/?event=750 |
| Pharmacists in long-term care facilities: Before, during and after the pandemic | 06-Jul-21 | https://events.fip.org/previous-fip-digital-events/?event=751 |
| Looking ahead: Post-pandemic recovery and restoration of services | 12-Jul-21 | https://events.fip.org/previous-fip-digital-events/?event=757 |
| Pharmacists' experiences in crises in Lebanon: The Lebanese financial crisis, COVID-19 pandemic, and the Beirut Port blast | 03-Aug-21 | https://events.fip.org/previous-fip-digital-events/?event=753 |

| Event name | Event Date | Link to event page |
|---|------------|---|
| Suicide prevention, burnout and pandemics: Supporting pharmacists' mental health and wellbeing | 10-Sep-21 | https://events.fip.org/previous-fip-digital-events/?event=854 |
| Pharmacist-led mental health care during the COVID-19 pandemic and beyond | 05-Oct-21 | https://events.fip.org/previous-fip-digital-events/?event=755 |
| Confidence, complacency and convenience: Key elements of influenza vaccination strategies in times of COVID-19 | 12-Oct-21 | https://events.fip.org/previous-fip-digital-events/?event=886 |
| COVID-19 Complications – What Should Pharmacists Know? | 16-Nov-21 | https://events.fip.org/previous-fip-digital-events/?event=898 |
| Uncovering our implicit biases to advance patient care: An introduction for pharmacists | 17-Nov-21 | https://events.fip.org/previous-fip-digital-events/?event=869 |
| COVID-19: Where are we now and where next? | 06-Apr-22 | https://events.fip.org/programme/how-covid-19-has-changed-us-pharmacy-and-pharmaceutical-science-perspectives/?event=930 |
| The role of community pharmacies in COVID-19 booster vaccination: Opportunities and supply chain challenges in a post-pandemic scenario | 26-Apr-22 | https://events.fip.org/programme/how-covid-19-has-changed-us-pharmacy-and-pharmaceutical-science-perspectives/?event=936 |
| Therapeutic advances against COVID-19 | 10-May-22 | https://events.fip.org/programme/how-covid-19-has-changed-us-pharmacy-and-pharmaceutical-science-perspectives/?event=931 |
| Managing workforce demand in a pandemic - now and in the future | 14-Jun-22 | https://events.fip.org/programme/how-covid-19-has-changed-us-pharmacy-and-pharmaceutical-science-perspectives/?event=932 |
| Delivering person-centred support for COVID-19: Current and future pharmacy practice | 19-Jul-22 | https://events.fip.org/programme/how-covid-19-has-changed-us-pharmacy-and-pharmaceutical-science-perspectives/?event=933 |
| Delivering high quality pharmaceutical education now and in future pandemics | 08-Nov-22 | https://us02web.zoom.us/webinar/register/3216484663258/WN_kQjmWLz5T2m_Z8K2jO1PoA |
| Accelerating Pharmaceutical Science: Innovating and collaborating to fight COVID-19 and future pandemics | 05-Dec-22 | https://us02web.zoom.us/webinar/register/4816484662366/WN_fa6h9Lu7RTGiBkUfn5t_CA |

Annex 6: Resources from the Malaysian Pharmacists Society

Certified training programme on immunisation for pharmacists

| | |
|--|---|
| Course Title | Certified training programme on immunisation for pharmacist |
| Instructor | NUR HAFZAN BINTI MD HANAFIAH (UNIVERSITI SAINS MALAYSIA, USM) |
| Course Synopsis | This certificate training module provides comprehensive knowledge, skills, and resources for pharmacists necessary to prepare them for vaccination advocacy, immunisation administration, and surveillance. The module emphasizes a health care team approach, seeks to foster the implementation of interventions that will promote vaccine preventable-disease prevention and educate the public on vaccine safety issues. There are eight learning modules that present in-depth information on immunology, practice implementation, and regulatory issues. The self-study program includes several self-assessment tests and real-life case studies that are designed to help reinforce and evaluate participants' understanding of key information and concepts. |
| Course Learning Outcome (CLO): | At the end of the course participants will be able to: <ul style="list-style-type: none"> • Explain the type of vaccines available and its impact on vaccine preventable diseases. (C2) • Identify the different types of AEFI and how to identify AEFI. (C4) • Pharmacists' roles in immunisation. (A) • Promote immunisation by utilizing various instruments/tools needed in communicating vaccine advocacy. (A) • Describe the basic principles of pharmacovigilance and the special considerations that apply to vaccination programs. (A) |
| Pre-Requisite Courses: | Allergic and anaphylactic Reaction Module (Malaysian Society of Allergy and Immunology (MSAI)) Basic Life Support - First Aid (BLS) - 1 year/2 year (PBSM- https://www.redcross.org.my/training/) +603 2142 8122: secgen@redcross.org.my |
| Post-online (practical) course | 1. Face to Face - Practical Session - Must complete Module with Score > 90%. |
| WHO sustainable development goals (SDG) | SDG 3 – Good health and Well-being SDG 4 – Quality Education |

| CLO | Topic | Module | Module/Micro Learning Outcomes (MLO) |
|-----|--|--|--|
| 1 | Introduction to Vaccines | Introduction to vaccines development | <p>Explain the development of vaccines, their history, and the current advancement of technology in vaccine development.</p> <p>Discuss the importance of vaccination that leads to immunization and control of vaccine preventable disease.</p> <p>Relate the different types of vaccines and their immunologic principles.</p> <p>Explain the concept of herd immunity and why it is important to achieve herd immunity.</p> |
| 2 | Vaccines and preventable disease | Type of vaccines | <p>To discuss the impact of vaccine towards vaccine preventable disease (EBM)</p> <p>To differentiate the types of vaccines and its components.</p> |
| 3 | Adverse events following immunisation (AEFI) | Adverse events following immunisation (AEFI) | <p>Identify or recognize the different types of AEFI.</p> <p>Demonstrate the ability to report AEFI incidents using the NPRA AEFI Reporting system (ADR/AEFI Reporting).</p> <p>Outline the steps for Reporting AEFI incident using the CONSUMER SIDE EFFECT REPORTING FORM (ConSERF).</p> <p>Differentiate between contraindication and special precautions.</p> |
| 4 | Immunisation in special population | Immunisation in special population | <p>To identify patients who are at highest risk of vaccine-preventable illness</p> <p>To explain the immunisation schedule</p> <p>To identify appropriate vaccines for individuals across the life span and with special needs.</p> <p>To review a patient case and identify that patient's vaccine needs using the appropriate immunisation schedule.</p> |
| 5 | Misconception on vaccines | Vaccine: Myth or Facts | <p>explain the historical events contributing to misconceptions on vaccines.</p> <p>clarify eight common misconceptions on vaccines and immunisation for the purpose of public health education.</p> <p>discuss several myths and facts related to COVID-19 vaccination.</p> <p>infer common concerns regarding vaccines and immunisation from religious points of view.</p> |
| 6 | Policy: Implementation and Surveillance | Policy: Implementation and Pharmacovigilance | <p>To discuss on pharmacovigilance, ADR surveillance and AEFI surveillance components.</p> <p>To plan and operation of an immunisation service in compliance with legal and regulatory standards.</p> <p>To consider partnering with immunisation stakeholders to promote immunisations.</p> |

| CLO | Topic | Module | Module/Micro Learning Outcomes (MLO) |
|-----|----------------------------|----------------------------------|--|
| 7 | Application: Communication | Communicating vaccines to public | <p>to discuss effective communication skills.</p> <p>to outline the structure for communicating risk and benefit of immunization.</p> <p>to explain the assessment for vaccination needs to the patient.</p> |
| 8 | Vaccine Administration | Vaccine administration | <p>describe the requirements for storage and handling of vaccines.</p> <p>explain appropriate safe administration of vaccines to patients via subcutaneous, intramuscular, intranasal, and intradermal routes.</p> <p>discuss the support during administration, what to do following an AEFI, and record keeping.</p> |

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