

Advanced Practice and Specialisation in Pharmacy: Global Report

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FIP Education Initiative

Preparing the pharmacy workforce of the future:
better science, better practice, better health care.

Colophon

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Foreword

Human resources for health are at a critical low. The World Health Organization estimates that the current shortage of health workers is in excess of 7.2 million worldwide and that, by 2035, the shortage will reach 12.9 million. Pharmacists, in particular, are lacking in the workforce in many countries. In addition, education and training needs to be strengthened globally. Pharmacy needs a global vision that encompasses the sharing of experiences, gathering of evidence and collaborative guidance to facilitate country-level initiatives.

FIP*Ed* is the name given to the component group of the International Pharmaceutical Federation (FIP) that is bringing together all of the federation's efforts in transforming and strengthening professional pharmacy and pharmaceutical sciences education globally. It is organised as a cross-cutting initiative that includes both of the boards of FIP as well as its governance bodies. More than 100 practitioner and scientific educators and over 130 deans of schools of pharmacy from throughout the world are involved in congress programming on educational issues.

The FIP*Ed* team prepares technical and policy papers on key areas of education, contributes to an online international journal on pharmacy education, gathers leaders in education to establish a future agenda for transformation of pharmaceutical education, and links educational policy issues to national needs for workforce development, capacity building and quality assurance.

All of these initiatives are closely tied to enhancing appropriate medicines use in global health systems, with a strong emphasis on competency development across the continuum of the pharmaceutical workforce for practice and science.

Education and workforce development are the foundations for advancement in both pharmacy practice and the pharmaceutical sciences, and the strengthening of educational programmes in the global community of universities and training centres are integral parts of FIP's Vision for 2020. This report additionally links to two other FIP reports published in 2015: 'Global Pharmacy Workforce Intelligence: Trends Report' and 'Interprofessional Education'. FIP stakeholders have identified all these topics as being globally important and valuable for professional leadership bodies worldwide. Expansion of pharmacists' roles and scopes of practice to assure safe, effective and efficient medication use is strongly reliant on educational programmes that are socially accountable and meet international standards for quality. In that vein, FIP*Ed* has partnered with the World Health Organization, the United Nations Agency for Education and Social Development (UNESCO) as well as several leading universities and national organisations.

FIP*Ed*'s Global Report on Advanced Practice and Specialisation in Pharmacy is the first publication of its kind to provide a baseline on the current growing global trend to formally recognise the advancement of practice, which includes elements of specialisation and professional recognition. We share this knowledge from our members to our members and beyond, to trigger dialogue and action towards stronger policies. We hope that this will stimulate collaborations/partnerships between all stakeholders, including professional organisations and universities taking up the important role of advocating transformation of professional development education at the national level.

This report, and others like them, are only possible due to the commitment and expertise provided by the principal authors and the personnel who have contributed to case studies and the provision of evidence and data. This report represents a significant commitment of time and effort, and on behalf of the FIP*Ed*, I am sincerely grateful to the individuals, organisations and institutions who have made these significant contributions. Without their contribution and commitment, these influential and helpful publications would not be possible.



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PART 1

KEY MESSAGES

FIP Education Initiative surveyed 48 countries and territories worldwide to obtain information concerning specialisation and advanced practice policy and implementation at country level. Both terms were described within the context of the survey in order to assist with responses. Specialisation was taken to mean advanced with narrow scope; advanced practice was taken to mean overt advanced (beyond foundation) with broad scope of practice. The survey obtained 48 country and territory level responses ranging across WHO regions, economic and demographic characteristics.

In addition, a series of case studies (17 countries) illustrates trends in policy development related to specialisation and advancement. From these, and the initial quantitative survey, a preliminary series of definitions and a glossary has been formulated in order to seed global debate about advancement of practice and professional understanding across borders.

This report is the most comprehensive collection of data and evidence that relates to practitioner advancement of practice and policy, and maps out a wide range of national initiatives worldwide. This report should be viewed as a first attempt to map out global trends and will stimulate further reportage and analysis as engagement in this practice continues to progress.

In our sample around half of the respondents (23, 48%) indicated the existence of an agreed national level definition of “specialisation” although there is variance between these definitions. “Advanced practice” as an agreed country level definition was indicated by fewer countries (11, 23%) with a smaller number of nine countries (19%) indicating country level consensus on both specialisation and advanced practice. Advanced practice in this context was taken to mean a broad scope of practice, beyond foundation level.

There are no clear associations with the existence of country level definitions of specialisation or advanced practice with national pharmacist capacity; high-capacity countries do not have a tendency to have definitions compared with low capacity countries. However there is a level of association with economic development; higher income countries tend to have a provision of formalised specialisation and advanced practice contrasted with lower-income countries.

For workforce development of advanced and specialised practice a number of countries stated categorically that practitioner frameworks were currently available — or under active development — and accounted for 58% (28 nations) in this sample. It was notable that 10 countries indicated that frameworks had been adapted from the work of other countries showing potential collaborative practice between countries and leadership organisations. It is clear to us that the use of national developmental frameworks, ideally linked with the concept of “professional curricula”, is a key workforce development activity in order to progress professional role enhancement and pharmaceutical service delivery.

The data retrieved from case studies also makes clear that recognised “advancement” and “specialisation” (independent of how countries may define these terms locally) must be linked with a modern understanding of competence and capability of performance. Consequently, professional recognition of practitioner advancement must be clearly identified as including both education and practice development components.

There is a close association in those countries with formal recognition processes in place (for specialisation and advancement) and acknowledgement of tangible benefits for workforce access to specialisation and advancement. These benefits included enhanced career pathways, enhanced remuneration for practitioners and enhanced individual esteem and prestige.

The global trend is for pharmacy to continue to become a more clinical, patient-facing profession, with enhanced responsibilities and accountabilities for pharmaceutical care in clinical environments; hence, clear pathways for workforce development, coupled with professional recognition and credentialing of practitioners, becomes an important consideration. There is a clear opportunity for transnational collaboration and further opportunities for transnational recognition of advanced capabilities for the pharmacy workforce.

The public and our patients expect the highest possible pharmaceutical care from professional practitioners worldwide, without exception. A clear demonstration of competence and capability that is commensurate with advanced and expert practice is a strong message to policy makers and civil society that pharmacists possess this expertise. Professional recognition, credentialing and quality assured specialisation are part of the demonstration of competence and capability.

It is in the interest of patients, health systems and our profession that a common and shared understanding of what we mean by “specialisation” and by “advanced practice” is developed. This is a key driver for future workforce development and this report can be seen as a starting point for this global discussion.

PART 2

INTRODUCTION

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Pharmacists are expected to have the professional expertise to effectively manage complex patient cases and complex combinations of medicines. The concept of medication therapy management (MTM)¹ and similar services continue to be introduced and developed within healthcare systems across the world, and there is strong evidence demonstrating improved health and system outcomes as a result of pharmacists providing MTM-type services.² As current health systems and patient care continue to evolve in complexity and challenge, there is more demand for pharmacists to provide complex services and to take on roles which are extended, specialised and more advanced than current entry level scope of practice. In order to ultimately provide these services, pharmacists would benefit from having clear developmental pathways from foundation practice to practice, which is more advanced, and to have opportunity to be formally recognised as advanced practitioners.

Foundation practice

In a report prepared for the Royal Pharmaceutical Society (GB) “Professional Recognition and Professional Advancement”, by the Joint Partners Credentialing Task Group, it was identified that healthcare professionals’ ability to enhance therapeutic outcomes, patients’ quality of life, scientific advancements and public health imperatives, depends upon a sound foundation of competence and capability that should be acquired during initial education and experiential training.³

Competency refers to the combination of skills, knowledge, behaviours, and attitudes that an individual develops through education, training, and experience.⁴ These behavioural competencies can be used to develop an individual’s performance and are a necessary prerequisite for a practitioner to move forward in advanced practice or specialisation.⁵ It is necessary for pharmacists globally to demonstrate an appropriate foundation practice before obtaining the capabilities required to be considered competently specialised, or advanced in their practice. It is crucial for professional leadership bodies to support pharmacists, in various stages of their career progression, through use of developmental frameworks.⁴

Current entry-level pharmacists practice within a broad scope and at a general foundation performance level.

As the profession of pharmacy continues to expand to include more complex roles and responsibilities, entry level performance associated with skills, knowledge, and behaviours does need to be shown to meet defined foundation competency expectations to provide public and patient trust and assurance.⁶

Internationally, a number of countries have developed and implemented frameworks to describe foundation competencies for pharmacy practice. One of the first countries using developmental frameworks was the United Kingdom, through the Competency Development and Evaluation Group (CoDEG), that developed the General Level Framework (GLF) - a Framework for Pharmacist Development in General Pharmacy Practice.

Based on this work and others, FIP developed the Global Competency Framework (GbCF) v1. The GbCF v1 is an example of a developmental framework, which can support countries to adapt and develop their own. It contains a core set of behavioural competencies synthesised from several documents that are generally applicable for the pharmacy workforce globally. It acts as a mapping tool for the creation of country specific needs for the development of practice and practitioner professional development. In synergy with assessment tools, countries can implement the GbCF into practice, developing education and training infrastructures for their practitioners.^{4,7}

In 2010 collaboration between CoDEG, Monash University and the Society of Hospital Pharmacists Australia resulted in the development of the clinCAT (Clinical Competency Assessment Tool), which has been implemented nationally for peer review of professional practice.⁸ Recently the GLF has been adopted and revised by the Royal Pharmaceutical Society (RPS) as the “Foundation Pharmacy Framework”. This underpins the RPS’s new Foundation Programme that supports pharmacists to deliver safe and effective pharmaceutical care, for both early careers and for ‘return to practice’ or career break practitioners.⁷

There are a variety of other initiatives developed globally to encourage and recognise advancing practice and there exists an opportunity to develop a validated global competency assessment tool to support more advanced practice.

Advancing practice

The knowledge and skills that pharmacists acquire through foundation practice provide the platform for advancing practice. An evaluation of competency development frameworks in pharmacy education has recommended developing a formal structure to offer support of post-registration pharmacists through mentoring and supervision.⁹

Recent experience in Australia has identified the importance of recognising capable pharmacy practitioners.³⁰ Some areas of the Australian pharmacy workforce have begun to recognise advanced practitioners and there is currently a pilot program underway to formally credential advanced practice pharmacists.³¹ There is recognition that the ability of an advanced pharmacy practitioner to make clinical decisions and deliver patient care is at a significantly higher level than the abilities of an entry-level pharmacist.³⁰ This observation supports the need for recognition of more advanced practice and for competency frameworks to develop capable pharmacy practitioners, possessing a competence level beyond that of entry-level pharmacists, to deliver the best possible patient care.

Similar work has been underway in Great Britain for a number of years and has culminated recently in the establishment of the Royal Pharmaceutical Society Faculty, a service aiming at recognising and validating advanced practice. Membership of the Faculty is a quality assurance marker that a practitioner is more advanced, a confirmation that they can handle complexity and make complex decisions with confidence.³²

Requirements for more advanced practice

A key requirement for advancing practice in the profession will be to provide a sufficiently robust definition and description of “advancement” that will resonate with professional leadership bodies and service providers globally.

One model adopted by Australia (Advanced Pharmacy Practice Framework - APPF)³³ and the GB (Advanced Pharmacy Framework - APF)³⁴ aims to support pharmacists to determine their current competency levels, and the skills, knowledge, behaviours, and values that need to be developed to move forward on the continuum of advanced pharmacy practice. Both frameworks have identified similar key competency clusters that are considered necessary for development of advanced stages of practice. While the terminology differs slightly between the two frameworks, there is clear resonance with the identified domains or clusters, which can be represented by the APF as follows³²:

1. Expert professional practice
2. Collaborative working relationships
3. Leadership
4. Management
5. Education, training, and development,
6. Research and evaluation

These domains of advanced competency tend to recur in other professions and have an evidence base to support their relevance and credibility.³⁴

Other jurisdictions have taken a slightly different approach to describing and recognising advanced practice. Rather than using a competency framework some have requirements including a combination of certification by dedicated structures (i.e. Board of Pharmaceutical Specialties in the USA), specific continuing education, a specified number of years in practice, and designated postgraduate courses of study. This report attempts to describe the current global practices supporting development and recognition of advanced practice.

Benefits of more advanced practice

There are benefits from developing and recognising advancement in pharmacy practice. Pharmacists working at a recognised level of advancement, with a higher set of competencies, improve and safeguard patient safety and more effectively manage complexity in many areas of expert practice. Professional recognition of advanced practice improves acceptance by other colleagues in the clinical team, but also in other areas of practice such as research, education and management. It also provides role models and a source of mentorship for novice and less experienced pharmacists, including pre-service or pre-licensed pharmacists. Recognising pharmacists as advanced practitioners enables employers and senior managers to have evidence of capability.³³ Overall, the movement towards recognising advanced practice in pharmacy represents progression of the pharmacy workforce.

Challenges and barriers

There are challenges and barriers to the development and recognition of more advanced pharmacy practice. Global recognition of advanced pharmacy practice is not yet optimal, and there is lack of agreement regarding what constitutes advanced practice. Barriers to consider include differences in the structure of healthcare systems, pharmacist initial education, and variances in scope of practice.⁶ In countries where pharmacists can be recognised as “advanced practitioners”, collaborative practices between pharmacists and physicians, for example, are often already well established and pharmacists tend to provide pharmaceutical and clinical services directly to patients.

One of the greatest challenges in encouraging pharmacists to seek recognition of more advanced pharmacy practice is that pharmacists may not receive adequate compensation/reimbursement for their services. For example, in California, USA, the designation advanced practice pharmacy (APP) was created to recognise the expansion of a pharmacist’s scope of practice through Collaborative Practice Agreements (CPA). Even with the APP designation and growing establishment of CPA between pharmacists and physicians, there is no law in California that authorises pharmacists to receive reimbursement.² This shows that even in places where advanced practice pharmacy is growing and being recognised, there are still barriers to overcome. There is starting to be some evidence that this issue is slowly being addressed.

Specialisation

In some jurisdictions advancement and specialisation are used almost synonymously and this can result in confusion regarding the use of these terms. There have been attempts to clearly define these two concepts.^{33,35} In Australia the term “specialist” is protected under national law and can only be used by designated healthcare practitioners. As pharmacists are not included in this group more generic terms such as “area of focus”, “area of expert practice” or “defined area of practice” are used, further complicating global understanding in this area.

The ‘PHARMINE’ (Pharmacy Education in Europe) report Identifying and Defining Competencies: A clear map for scientific and professional competencies as applied to hospital pharmacy outlined a European context for specialisation and delivered a consensus derived set of competencies required for specialisation within pharmacy practice. The aim of this European consensus was to develop a core set of competencies for specialisation that are applicable across sectors of advanced levels of practice. The report stated that specialisation is taken to mean, “becoming an expert in one particular skill or area” but also stated that there is no universal consensus on what “specialisation” denotes.³⁶ It can be argued that specialisation denotes a specific sector of practice such as hospital pharmacy or community pharmacy and is a “horizontal” differentiation from other practitioners (describing scope of practice), while advancement is a “vertical” differentiation (referring to level of performance).^{35,37} It can also be argued that within each practice sector exist narrower fields of specialisation, for example “oncology pharmacy” or “drug information pharmacist”.

However, it is commonly recognised that specialisation is seen in more advanced areas of practice and should not be focused principally on job description or functional task list, but rather a certain (defined) level of competence within a sector of practice. Figure 1 depicts this generalised concept.

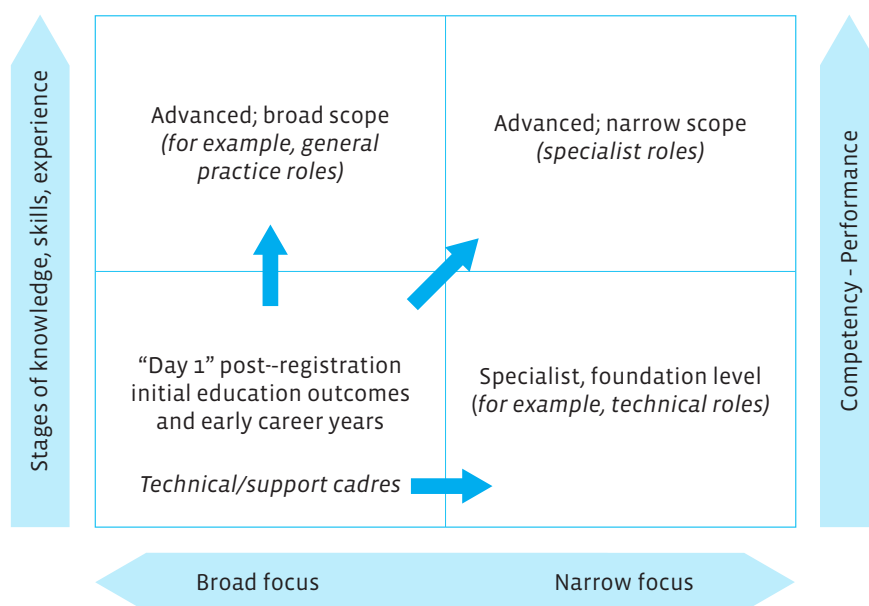
The PHARMINE report outlines a competency-based approach to specialisation and focuses on a “set of learned behaviours which possess the following attributes: not dependent on job descriptions or functional task lists; generalisable, and hence transferable across jobs and expected tasks; and educational and developmental in nature... hence can be applied to practitioner development across sectors and scope of practice”. A Specialist and Advanced Level Framework for Hospital Practice was developed in collaboration with the European partners and contains two components: “core clusters” and “specialisation competency clusters”.

The “core clusters” represent competencies, which are common to all sectors of pharmacy practice and include:

1. Leadership
2. Management
3. Education, training, and development
4. Innovation and evaluation [analogous to ‘research and evaluation’]

and a set of related competencies for each area, with three levels of performance demonstrating advancement. This is consistent with the idea that many advanced competencies are generic regardless of sector, or area of expertise.

Figure 1: Advanced and specialist - broad and narrow scope.



The core framework is intended to be used as a tool to progress, within a specific area of practice, toward a level of mastery in each of the four areas or domains. This approach shows a consistency in the identification and characterisation of domains that relate to “advanced practice”.³⁷

Professional recognition, credentialing and privileging

In a wider context, Australia, Europe, and North America have taken a special interest in the credentialing of healthcare professionals. Within this context, credentialing is used as an umbrella term to encompass processes to ensure that individuals and/or organisations have complied with accepted standards, therefore acting as an evaluation of a professional’s training, experience, and competence. In North America, the term “board certification” is equivalent to credentialing. There is evidence supporting the notion that “credentialed” healthcare practitioners, including pharmacists, tend to be associated with provision of a higher quality of patient care (including complex care), improved clinical outcomes, and an increase in patient safety as compared to non-credentialed or non-board-certified practitioners.³⁸

In the USA, the Council on Credentialing in Pharmacy says that the current set of credentials required assures that an entry-level pharmacist is qualified to provide a standard level of care. These credentials include earning “an accredited professional pharmacy degree and a license awarded upon successful completion of a national postgraduate examination administered by the National Association of Boards of Pharmacy on behalf of state boards of pharmacy”.³⁵ Although this is a standard process, the continuously growing healthcare system requires pharmacists to provide skills that are beyond entry-level.

The Board of Pharmacy Specialties (BPS), in USA, has been credentialing pharmacists in special areas of practice since 1976. BPS has promoted and recognised the value of specialty pharmacy training as well as the knowledge and skills required to obtain a specialty board certification. This initiative ensures improved patient care and optimal medication outcomes.³⁹ Recognition of specialty practice in other countries is extremely variable, both in the pathways followed and the responsible organisation.

In 2010, following new legislation in the UK, professional regulation and professional leadership were separated and the re-formed RPS in Great Britain was able to commence activities associated with professional recognition and credentialing, along lines similar with the medical ‘Royal Colleges’. The subsequent Joint Partners Credentialing Task Group report determined the role of the professional leadership body in creating a professional recognition based on peer assessment and developmental frameworks.

RPS peer review panels have now been established for the purpose of professional recognition and credentialing, and to enable advanced support for practitioners.³ Access to a formal framework such as this allows pharmacists to evaluate their own performance against a framework and to determine the support required for continued development as evaluated by peers.²⁰

Continuing professional development

As pharmacy practice continues to progress, so do the requirements for continuing education (CE). Continuing education is evolving into more complex, competency-based education, which incorporates application of knowledge and demonstration of skills. The term “continuing education” is transforming into “continuing professional development” (CPD). CPD is essential in order to maintain modern pharmacy practice in a healthcare system that continually advances.²⁰

Summary

In order to utilise pharmacists to their full potential as advanced practitioners, the development and global acceptance of standardised competencies, which pharmacists are required to meet, is essential. A competent pharmacist will be able to provide the highest quality of healthcare to their patients, with a lower rate of medication errors, leading to increased health outcomes and patient satisfaction.

Additionally, a pharmacist who possesses the qualities of competence and capability will allow other healthcare professionals to recognise the expertise of advanced practice pharmacists. Several frameworks have been developed at national level and internationally such as the FIP GbCF. The development of competency frameworks will be useful for the inevitable progression of the profession of pharmacy toward advanced practice.⁴⁵

Pharmacists continue to improve their expertise and value to the healthcare workforce. Before improved competence and recognition of advanced pharmacy practice can be achieved, more standard competency requirements must be established. There are still several barriers to overcome before pharmacists can be recognised as advanced practitioners, but overall the benefits of creating a competency system for advanced practice outweighs the challenges that may be faced along the way.

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PART 3

ADVANCED PRACTICE AND SPECIALISATION DESCRIPTION

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Key messages

- FIP Education Initiative surveyed 48 countries and territories worldwide to obtain information concerning specialisation and advanced practice policy and implementation at country level. Both terms were described within the context of the survey in order to assist with responses. Specialisation was taken to mean advanced with narrow scope; advanced practice was taken to mean overt advanced (beyond foundation) with broad scope of practice. The survey obtained 48 country level responses ranging across WHO regions, economic and demographic characteristics.
- In this sample around half of the respondents (23, 48%) indicated the existence of an agreed country level definition of “specialisation”. “Advanced practice” as an agreed national level definition was indicated by fewer respondents (11, 23%) with a smaller number of nine countries (19%) indicating country level consensus on both specialisation and advanced practice. Advanced practice in this context was taken to mean a broad scope of practice, beyond foundation level.
- There are no clear associations with the existence of country level definitions of specialisation or advanced practice with national pharmacist capacity; high capacity countries do not have a tendency to have definitions compared with low capacity countries. However there is a level of association with economic development; higher income countries tend to have a provision of formalised specialisation and advanced practice contrasted with lower income countries.
- For workforce development of advanced and specialised practice a number of countries stated categorically that practitioner frameworks were currently available – or under active development – and accounted for 58% (28 nations) in this sample. It was notable that 10 countries indicated that frameworks had been adapted from the work of other countries potentially showing a high degree of collaborative practice between countries and leadership organisations.

- Twenty countries (42% of the sample) indicated that formal post-nominal titles for individuals were available for professional recognition of advancement or specialist practice. Examples are provided. Professional organisations, rather than statutory regulators, seemed to be predominant in the recognition and awarding of specialist post-nominal titles.
- Prescribing as a specialisation was present in 19% of the sample (9 countries).
- There is a close association in those countries with formal recognition processes in place (for specialisation and advancement) and acknowledgement of tangible benefits for workforce access to specialisation and advancement. These benefits included enhanced career pathways, enhanced remuneration for practitioners and enhanced individual esteem and prestige.

3.1 Introduction and methods

There is a growing global trend to formally recognise the advancement of practice, which includes elements of specialisation and professional recognition. There is evidence presented in this report suggesting there are benefits in developing a clear definition for scope of practice, for advanced practice and specialisation, and that these benefits support workforce development and progressive service delivery of pharmaceutical care.

This section of the report presents a summary of the survey administered to membership organisations or countries that are represented by FIP. The survey was developed in collaboration with the FIP Collaborating Centre, University College London School of Pharmacy, Faculty of Pharmacy and Pharmaceutical Sciences at Monash University, and FIP Education Initiative. The survey was validated by an expert working group, drawn from a cross-section of FIP sections and special-interest groups.

The 2015 advanced practice and specialisation survey was conducted between January 2015 and May 2015. FIP member organisations, country and territory level contacts from regulatory, professional and government agencies and universities were approached for responses to a survey, asking for quantitative and multiple-choice responses concerned with advanced practice and specialisation in their country. Demographic and economic data was also collected. The survey tool was made available in 2 languages (English and Spanish). The dataset was cleaned and checked with respondents before being prepared for analysis. The survey tool, data tables and the report are available for download from www.fip.org/educationreports.

Frequency counts and valid percents (taking into account missing data for some items) are reported here.

3.2 Terminology, nomenclature and language

The survey reported here was necessarily administered to member organisations before the full report data set had been retrieved and analysed. Hence, the survey terminology and language was given careful consideration beforehand, and use of expert opinion and consensus from FIP sections was sought. The terminology used for responding to the survey item set used “specialisation” and “advanced practice” as labels and a definition of contextual meaning was provided within the survey.

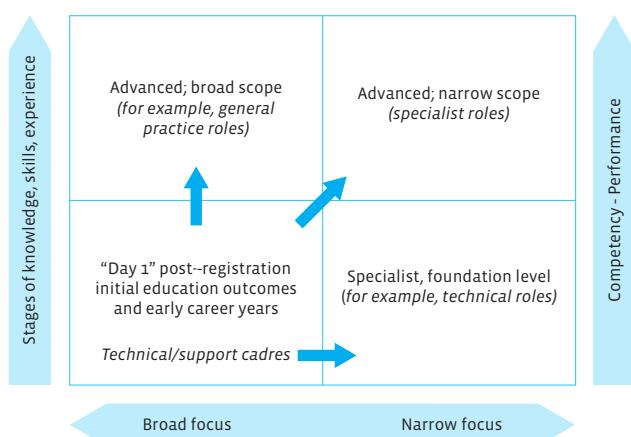
“Specialisation” was taken to relate to a higher, but narrow, focus on scope of practice.

“Advanced practice” was intended to relate to a higher, but broad, scope of practice.

Both terms, de facto, relate to practice that is beyond initial education and training, and beyond what can be broadly considered as foundation practice or training, and both cases, generally relate to practice beyond three years post-registration/licensing. See Figure 1 for a schematic of this concept.

For the interpretation of the survey data, this was the context for organisations to provide responses.

Figure 1: Advanced and specialist - broad and narrow scope.



3.3. Survey summary and sample demographics

In total, FIP Education Initiative was able to obtain broad data from 48 countries and territories worldwide. The data were subject to quality assurance and checking processes, before being coded and entered into a database for subsequent analysis. Analysis was conducted primarily by descriptive statistics. The analysis presented here should be interpreted within the limitations of generalisation and based on the best available data collected by the FIPed team. It is clear from an overview of the detail provided by respondent countries that codifying and defining advanced practice and specialisation is complex. Nonetheless this section of the report will provide a first view of the global situation for advancement of pharmacy practice. Table 1 shows responses by WHO region of origin.

Table 1: Respondent frequencies by WHO region.

	FIP Advanced & Specialisation Report 2015	%	All WHO Member States	%
Africa	6	12.5	46	23.7
Eastern Mediterranean	4	8.3	22	11.3
Europe	20	41.7	53	27.3
Pan America	8	16.7	35	18.0
South-East Asia	2	4.2	11	5.7
Western Pacific	8	16.7	27	13.9
Total	48	100	194	100

By comparing with the proportions of WHO member states within regions it can be seen that the survey returns are weighted more towards European countries and less on African countries. For the other WHO regions there are similar sample proportions.

The respondent countries were also classified by income level using the current World Bank categorisation and this information is shown in Table 2 for interest and context.

Table 2: Responses by World Bank income classification.

	Count	%
Low Income	3	6.3
Lower Middle Income	6	12.5
Upper Middle Income	14	29.2
High Income	25	52.1
Total	48	100

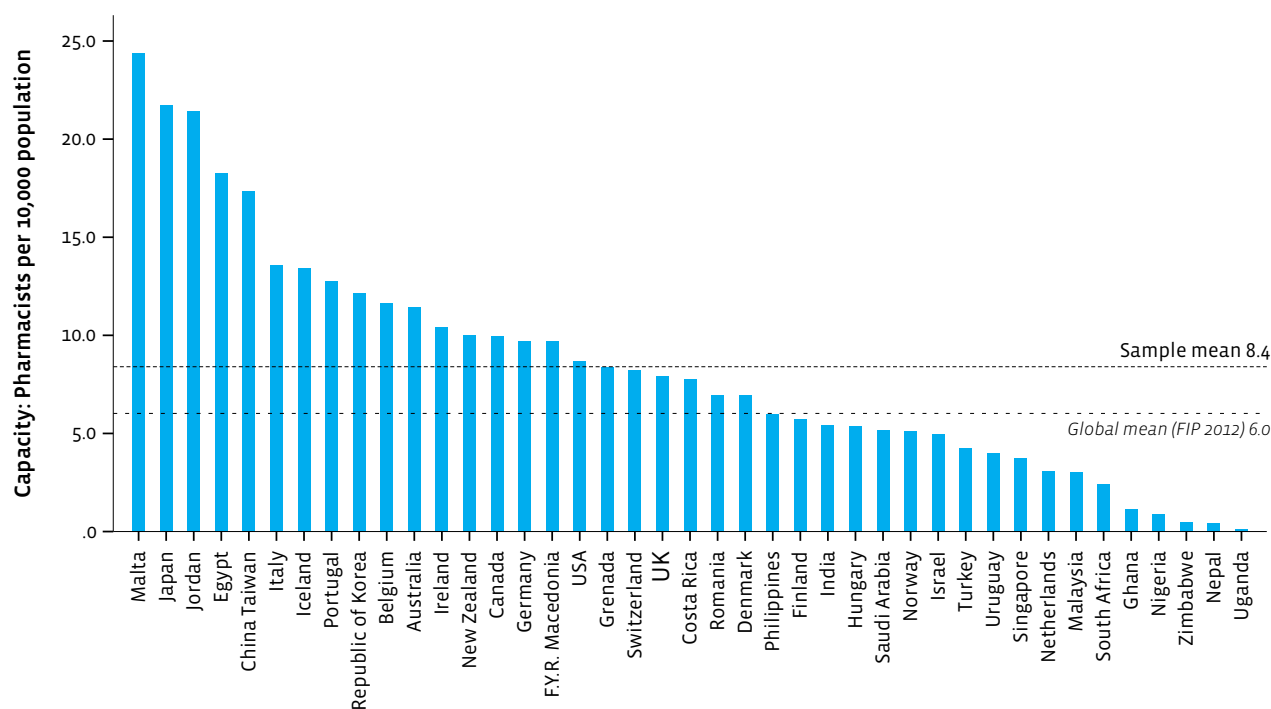
In this sample, there are higher proportions of responses from upper and higher income countries, the largest proportional responses from European countries, which may contribute to this weighting. In addition, Table 3 shows the organisations responding to the survey in this sample (noting that some responses, especially those with university affiliations, were responding on behalf of membership and leadership organisations).

Table 3: Responding organisations and affiliations.

	Count	%
Higher Education Institution	21	43.8
Licensing agency/Regulator	5	10.4
Professional Leadership Body	22	45.8
Total	48	100

The sample of 48 countries and territories in this report has an equitable distribution between high and low capacity countries, as seen in Figure 2. The sample mean capacity statistic for the 48 countries and territories represented is 8.4 pharmacists/10,000 population, which is larger than a global mean published by FIP Education Initiative in its 2012 Workforce Report (a mean of 6.02 pharmacists/10,000 with a sample size of n = 109 countries) and is a consequence of sample size difference (www.fip.org/education). We would conclude that we have relatively fewer lower capacity countries represented in this survey. Nonetheless, the survey represents a range of capacities and economies for generalisability of the analysis.

Figure 2: Pharmacist capacity standardised as per 10,000 population (n=48 countries who responded to this survey).



3.4 Specialisation and advanced practice

In the survey, respondent organisations were asked if there was a clear separation of regulation (licensing) from professional leadership (membership organisation) at country level. Thirty-eight (38) countries and territories indicated that there is separation of responsibilities, with 10 countries and territories (20.8%) indicating non-separation of regulation from leadership.

The survey asked respondent organisations for data concerning agreed definitions, or scope of practice, for their contextual understanding of advanced or specialist practice (see Section 5 of this report for deeper context and discussion). Of the 48 countries and territories in this sample, 23 (47.9%) indicated a country level agreement on a definition of “specialisation”. Table 4 indicates the lead agency or organisation for this country level definition, and shows that leadership or “ownership” of definitions for specialisation lie more or less equally shared (in this sample) between professional bodies and government or regulatory agencies (35% against 48%).

Table 4: Lead agency for country level definition of “specialisation”.

	Count	%
Professionally led	8	34.8
Government or Ministry	7	30.4
Regulator/Licensing agency	4	17.4
Not stated	4	17.4
Total	23	100

Those respondents indicating a country level definition, or understanding, of the term specialisation (contextualised within respective countries) are listed in Table 5.

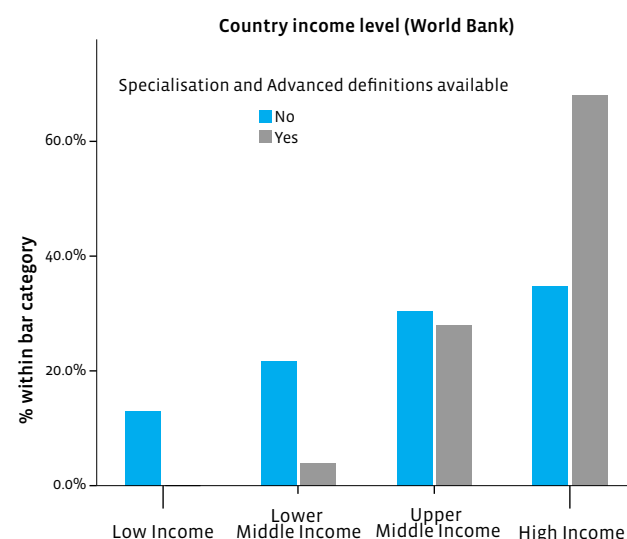
Table 5: Countries stating a definition of “specialisation” of scope of practice.

Belgium	Japan	Singapore
Costa Rica	Macedonia (Rep. of)	Slovenia
Finland	Netherlands	South Africa
Germany	Peru	Switzerland
Ghana	Portugal	Turkey
Hungary	Republic of Korea	United Kingdom
Iceland	Romania	Uruguay
Israel	Saudi Arabia	

In contrast, organisational respondents were asked if definitions, or agreed descriptions, of the terminology related to “advanced practice” were available at country level. There was a 23% response to this question, with 11 countries claiming an agreed definition of “advanced practice”, and 9 countries and territories (19%) providing evidence of defined practice that covered “specialisation” and “advanced”. Matching the availability of having, at country level, either a defined process or acceptance of specialisation or advanced practice, 25 countries (52%) report one or the other being in place.

For those countries and territories that do have a defined notion of “specialisation” or “advanced practice” there is no measurable correlation with capacity, so this does not appear to be confined or driven by numbers of pharmacists in any particular country. However, there does appear to be an association with income level or national GDP, with the high-income classified countries having a greater weighting on provision or acceptance of formalised specialisation and advanced practice (chi2, p=0.025, see Figure 3).

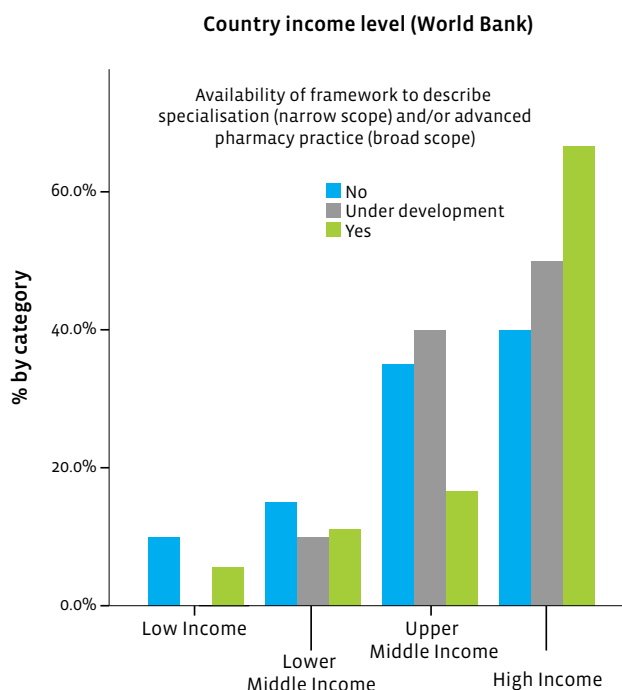
Figure 3: Availability of Specialisation/Advanced definition with income levels (n = 48).



3.5 Frameworks for specialisation and advanced practice

A number of countries and territories – 18 (38%) – stated categorically that frameworks were available for practitioners to use for guidance to describe specialisation (narrow scope of practice) or advancement (broader scope of practice). A smaller number of countries and territories in this sample also said that activity was underway to provide framework guidance; in total, 58% (28) indicated that frameworks were available or were being developed. Of these, it is striking that 38.5% (10) have either used directly, or are adapting, frameworks from other countries, which potentially shows a high degree of collaboration in progress globally. However, it is apparent that high-income countries have a tendency to have developed frameworks, or are more likely to do so as shown in Figure 4. There is scope here for further collaborative working practice between countries and leadership organisations.

Figure 4: Specialisation/Advanced framework development by Income level.



Combining responses, 23 countries and territories (49% of valid sample) stated that there was availability of professional recognition of specialisation and/or advanced practice roles within that country and indicated an award of “titles” associated with this and 20 countries (42% of the sample) indicated the use of a formal post-nominal for individuals that match this professional recognition.

Examples of these post-nominal titles include:

Country	Post-nominal titles
Australia	Adv. Prac. Pharm. [Advanced Practice Pharmacist]
New Zealand	RegPharmNZ [Prescriber]
Nigeria	FPCPharm [Fellowship of Postgraduate College of Pharmacists]
Romania	Farmacist Sp. [Specialist]
United Kingdom (Great Britain)	MFRPS I, MFRPS II, FFRPS [Advanced Stage I/II] or Fellow of Faculty Royal Pharmaceutical Society]
USA	APP [Advanced Practice Pharmacist]
(California)	CPP [Clinical Pharmacist Practitioner]
USA	BPS [Board of Pharmacy Specialties]

The responsibilities for awarding professional recognition or use of a post-nominal to individual practitioners, in this sample, seems mainly to stem from professional leadership bodies, with 84% (16) of those countries and territories (who indicate a form of professional recognition status) stating that either professional leadership bodies (or combined with regulators) are the “awarding” organisation, rather than government agencies.

3.6 Prescribing as a specialisation

The survey investigated the prevalence of prescribing rights by pharmacists. Member organisations were asked if, at country level, there existed overt legal provision for pharmacists to independently prescribe medicines (“independent prescribers” and specifically not “over the counter” medicines). In this sample, 9 countries (19%) indicated that legal prescribing rights did exist and these are listed in Table 6.

Table 6: Countries indicating legal prescribing rights available to Pharmacists.

Countries indicating legal prescribing rights available to Pharmacists
Canada
Ghana
Israel
Namibia
Saudi Arabia
South Africa
United Kingdom
USA
Zimbabwe

The requirement for formal qualifications for pharmacist prescribing for these 9 countries indicated that further specialist and CPD training was a requirement and for 3 countries, collaborative practice agreements were also required. For at least 5 of these countries, pharmacist prescribing rights was also formally linked with recognition of specialisation and/or advanced practice.

3.7 Benefits of specialisation and advanced practice

Respondent organisations were asked to list tangible, or visible, benefits of the reasons for specialisation and advancement – particularly those related to professional recognition processes rather than direct subject-specific specialisation (for example, specialist training to become a radio-pharmacist).

Respondents were divided on this question, with 49% (22) stating that there are clear benefits for having overt professional recognition mechanisms at country level; there is a close association (at $p < 0.0001$ level) with those countries who have introduced professional recognition process for advancement and stating clear and tangible resultant benefits. Table 7 shows in more detail the categories of benefit stated by respondent organisations. Developing career pathways is common together with links to remuneration for advancement.

Table 7: Categories of stated benefits for pharmacists.

	Count	%
Enhanced career pathway	7	36.8
Enhanced remuneration	11	57.9
Individual Esteem/prestige	1	5.3
Total	19	100

3.8 Summary

This survey of 48 countries and territories is the first of its kind to attempt to look at the variety of specialisation and professional recognition for advanced practice worldwide. The complexity of data arising from the survey was surprising, and will result in further work from FIP Education Initiative to support FIP member organisations.

What is clear from this first data set is that professional advancement and the recognition of advancement in practice is clearly a developing trend worldwide. This can be attributed to a number of reasons, such as the increasingly complex role of pharmacists, the enhancement of more patient facing roles and greater extent of clinical pharmacy with the associated risk this entails, and a consequent need to be able to endorse professional capabilities. Comparisons and parallels with medical practice and the advancement of physicians, for example, are notable.

If we are to become a more clinical profession, with enhanced responsibilities and accountabilities for pharmaceutical care in clinical environments then clear pathways for workforce development, coupled with professional recognition and credentialing of practitioners, is a policy imperative. There is a clear opportunity for transnational collaboration and further opportunities for transnational recognition of advanced capabilities for the pharmacy workforce.

PART 4

TRENDS AND INNOVATIONS CASE STUDIES

Key messages of the case studies

Argentina: There are seven recognised specialties, which relate to sector of practice (hospital, community, sterilisation, industrial, health and legal, nutrition and food analysis, biopharmacy). Recognition is via professional bodies, some of which have developed formal pathways. Recognition of hospital pharmacy as a specialty is the most developed, with a comprehensive training programme, a residency programme and an agreed model of practice.

Australia: There is a nationally agreed advanced practice framework, which describes practitioner development in all sectors of pharmacy practice, along a continuum, with three defined levels of advancement. The Australian Pharmacy Council is currently undertaking a credentialing of advanced practice pharmacists pilot programme prior to a full roll out of an advanced practice credentialing programme.

Canada: All major pharmacy associations in Canada are working collaboratively to develop a blueprint for pharmacy, which will align pharmacy practice with the healthcare needs of Canadians. Work is currently underway on a needs assessment of specialisation in pharmacy. This will include agreement on a definition for the term “pharmacist specialisation”.

China: Clinical pharmacy has been recognised and is now supported by standardised training through accredited training sites. Specialisation in areas such as oncology and anti-coagulation is beginning, however there are not yet agreed competencies or an accreditation system for this activity.

Great Britain | United Kingdom: The professional body in Great Britain - Royal Pharmaceutical Society (RPS) provides a professional recognition programme for advanced practice. The “RPS Faculty provides resources and services to assist practitioner development by meeting competencies outlined in the Advanced Pharmacy Framework (APF). There are three developmental stages of recognition and credentialing available to advanced practitioners based on review of a submitted professional practice portfolio, peer-assessment evidence and scope of practice evidence. Post-nominal endorsement is granted by the RPS at each Faculty stage.

India: The Pharmacy Council of India is aiming to advance pharmacy practice via development of regulations to define aspects of practice. More patient-centred care has been facilitated by implementation of PharmD programmes and mandatory continuing professional development for all pharmacists.

Ireland: The Irish Institute of Pharmacy has been established to enable pharmacists to engage with an approved model of continuing professional development. Identification of skills required by pharmacists to support national healthcare strategies will ensure alignment in future development of advanced practice and specialisation. Advanced practice frameworks will be developed to reflect requirements for the Irish healthcare system.


Japan: There is no standardised pathway for the professional recognition of pharmacist specialists currently, however areas of more advanced practice are increasing. Currently there is a range of credentials available to pharmacists that are awarded by professional organisations and educational bodies. The Japanese Pharmaceutical Association has developed a life-long learning support system, which includes a clinical ladder with ten levels of skills development. Support for foundation levels (1-5) is currently available, and is in development for more advanced levels (6-10), including linking to areas of specialisation.

Malaysia: There is currently no formal specialised training and recognition, however specialty practice has developed in a number of clinical areas. Clinical pharmacists are required to undertake mandatory training and observation in approved hospitals, and some have the opportunity for postgraduate study. The Malaysian Academy of Pharmacy has a role to advocate and facilitate provision, credentialing and accreditation of specialists and advanced level practitioners in pharmacy practice.

New Zealand: A funded pathway for advanced practice, and a number of funded cognitive, collaborative and advanced pharmacy services, has been accompanied by government policy to support pharmacists’ role in the healthcare team. Credentialed services include prescribing, vaccination, anticoagulation, and supply of emergency contraception, trimethoprim and sildenafil without prescription.

Philippines: Work is underway to develop an advanced pharmacy practice framework by revising and adapting a framework in use internationally. There is currently no licensing of specialist pharmacists, however there are workshops available to support pharmacists wishing to undertake specialty certification in the USA. Enhancement of professional competence has recently been supported with the introduction of mandatory continuing professional development.

Portugal: There are four recognised specialties, which relate to sector of practice (clinical analysis, regulatory affairs, hospital pharmacy, pharmaceutical industry). Approximately 14% of Portuguese pharmacists are recognised as specialists. The Portuguese Pharmaceutical Society is developing a competency-based model to recognise these four areas and plans to pilot the framework in one of the recognised specialty areas.




Singapore: Under the current career structure, pharmacists working in the public healthcare sector can develop their career in either professional, clinical or research tracks, and can progress to become advanced practitioners in each of these tracks. Accreditation and registration of specialist pharmacists is available, and there are scholarships to support specialist training.

South Africa: There are four recognised specialties which relate to sector of practice (radiopharmacy, pharmacokinetics, clinical pharmacy, public health and management). Scopes of practice and required qualifications for specialist pharmacists and pharmacist prescribers have been developed and are expected to be regulated shortly. This has been accompanied by enhanced career paths for pharmacists in the public sector

Spain: Pharmacy practice in Spain, including specialisation, is largely governed by regulations covering all healthcare professionals. The titles of “Hospital” and “Primary Care Pharmacists” are exclusive to pharmacists and require training as a resident intern pharmacist. Other areas of specialisation (e.g. clinical analysis and biochemistry, clinical genetics) are multi-disciplinary and have education and training requirements.

Switzerland: The professional society (pharmaSuisse) is responsible for providing the programmes and titles for recognition and maintenance of federal titles in community and hospital pharmacy. Holders of these titles are required to undertake continuous professional development. It will be now compulsory for pharmacists-in-charge of a hospital or community pharmacy to have a postgraduate title.

USA (California, North Carolina): There are many state based differences in the recognition of specialty and advanced pharmacy practice. The profession is advocating for federal recognition of pharmacists as healthcare providers, which would enable payment for cognitive and clinical services. Some states have developed innovative advanced practice models, and many pharmacists are pursuing board certification in a growing number of specialties.



Argentina: Seven recognised specialties

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Summary

- In Argentina, seven pharmacist specialties were determined by the National Ministry of Health in 2013: hospital pharmacy, community pharmacy, sterilisation, industrial pharmacy, health and legal pharmacy, nutrition and food analysis, and biopharmacy. There are the following formal mechanisms to recognise specialties:
 - Academic professor related to the specialty,
 - Written test to pharmacists with five years of practice, or
 - Accredited residency
- Currently only hospital pharmacy and sterilisation have established mechanisms to certify its specialist:
 - In 2013, the Argentina Association of Hospital Pharmacy (AAFH) and the Argentina Society for Industrial Pharmacy and Biochemistry (SAFyBI) began the process of formal recognition as certification authorities for specialty in hospital pharmacy and sterilisation
 - Written test to pharmacists with five years of practice, or
 - Accredited residency

Tools, frameworks and support mechanisms

There are a number of activities that encourage the development of hospital pharmacy. Argentina was the first country in Latino America to set up residencies in hospital pharmacy (1981). Currently, there are hospital pharmacy residencies in 28 private and public hospitals across six provinces, and in Buenos Aires City.

The AAFH have organised two symposia of Pharmacy Education, including an international symposium in 2013, in which we defined how to achieve specialty certification in Argentina according to international standards. In 2015 we continue working with the Ministry of Health and international colleagues to develop an accreditation system for residencies.

In 2014 AAFH, in collaboration with hospital pharmacists, established the Professional Standards Model for Hospital Pharmacy Services (MPPFH). The challenge remains to increase awareness and implementation of these standards.

The AAFH offers an annual course for hospital pharmacy (Comprehensive Training Program in Hospital Pharmacy - PROCIFH). The first level comprises 485 hours in basic topics delivered by virtual education with the support of Pan American Health Organisation (PAHO). This level includes: management, drug evaluation and selection, clinical, and development of medicines in hospital. In 2014 PROCIFH had 686 pharmacists studying at least one of the four blocks of content.

The second level of PROCIFH includes: critical care, medication reconciliation, medical devices & management in hospital pharmacy, and HIV therapeutics. This annual online program includes assessments and activity blocks. Its overall objective is to update the conceptual and methodological knowledge of hospital pharmacists.

Other education sessions offered include an annual congress, activities in patient safety, and an annual pharmacovigilance meeting.

These topics allow the integration of pharmacists in health teams (mainly in hospitals), an important activity encouraged by authorities through quality programs and awards.

Sterilisation is also recognised as a specialisation for pharmacists in Argentina, either in hospital or industrial pharmacy. There are university courses in sterilisation and different organisations that support its development. Development of industrial pharmacy is very important in Argentina, which leads the production of drugs in Latino America. The Argentine Association of Industrial Pharmacy holds a prime position in training especially in new developments such as biopharmaceuticals.

Alignment with national strategies for healthcare services and delivery

The Argentine health system has a strong operational decentralisation, and provincial governments are responsible for health planning according to the needs of each jurisdiction. Due to this decentralisation, the inclusion of hospital pharmacy in the strategies of the different local health services varies greatly. The accreditation of hospitals by the Joint Commission (<http://www.jointcommission.org>) is another important support in hospital pharmacy.

There are very few hospitals that undertake this process of accreditation and so hospital pharmacy in those hospitals is recognised and valued.

There is very good integration in the biggest province, Buenos Aires, which has a central commission of hospital pharmacy. In Buenos Aires City, private hospitals generally have more technology and offer more complex professional services than public hospitals. However, there are some public hospital pharmacies who offer a high level of pharmaceutical services in, for example, pharmacovigilance, clinical pharmacokinetics, quality management systems, management of medical devices, and IV compounding. Traceability is an official regulation, which requires hospitals to develop Unit Dose Distribution Systems. Public primary care programs encourage pharmaceutical care in HIV and other chronic diseases in hospital pharmacies.

Supporting regulation

- Resolution 241/00. Standards of organisation and operation of pharmacies in health care facilities;
- Resolution 1023-2012. Minimum requirements for services and areas of hospital pharmacy. National Quality Assurance Program;
- Resolution 1086/13 Recognises specialisation in pharmacy's profession;
- Resolutions 3683-11, 1881-12, 247-13, 963-2015 Drugs traceability application in Hospital Pharmacy;
- Resolution 2303-2014 Traceability of medical products;
- Resolution 209/ 1996 and Sterilization Standards (modified 102-2008).

Professional recognition

The Argentinian Ministry of Health, and its scientific societies or professional associations/boards, award pharmacists' specialist certification.

Ongoing progress

In 2014 the AAFH developed the Model of Practice in hospital pharmacy, and during 2015 developed an evaluation instrument. In November 2015, to recognise excellence in implementation of the Model of Practice, the AAFH will present the inaugural Best Related Initiative Award at the Annual Meeting of the Hospital Pharmacy Section.

The Professional Standards Model for Hospital Pharmacy Services (MPPFH) is a consensus on the skills, knowledge and competencies that a hospital pharmacist should have to comply with certain provisions with the aim of ensuring the provision of individualised, safe pharmacotherapy, which is cost effective, and based on the best available scientific evidence in hospitals and related care system.¹

In 2016 it is expected the assessment tool for the MPPFH will be implemented and validated.¹

The AAFH offers an annual course for hospital pharmacy (PROCIFH), which is described above.


Lessons learned

The Ministry of Health Resolution 1086/2013 was an important step to enable implementation of specialty certification. This directive will allow the recognition of pharmacist specialties in different practice environments and it is essential for the beginning of the certification process.

Hospital pharmacy is the most developed specialty, with a consolidated system of pharmacy residency at the postgraduate level. Currently the residencies are not accredited and graduates of the residency programmes cannot access the formal title of 'specialist'.

A pharmacist may become a 'Specialist in Sterilisation' after completing two or more years of postgraduate training in a university centre of sterilization. This modality for reaching specialist certification is not currently effectively implemented in Argentina.

The development of Standards of Practice for hospital pharmacists and the definition of a Model of Practice are expected to promote similar actions in other pharmacist specialties. In Argentina, each jurisdiction has different professional realities and regulations, with different ways of practice. Therefore, the effective application of a Model of Practice, including minimum standards, will have a favourable impact on practice, shortening these inter-jurisdictional differences.




Formal recognition of the professional associations as certification authorities for specialty in hospital pharmacy and sterilization needs to be effectively implemented for other areas of specialisation. Similarly, it is necessary to achieve a common legal recognition in all jurisdictions of the country. It is important that health authorities stimulate the formation of specialists. The professional organisations and other educational institutions should continue working in education, accreditation and certification to achieve optimal outcomes with the professional recognition of specialisation.

Key stakeholders

Institutions involved in the recognition for advanced practice and specialisation are Ministry of Health, Universities and Associations (e.g. AAFH, SAFYBI).

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Australia: Nationally agreed advanced practice framework

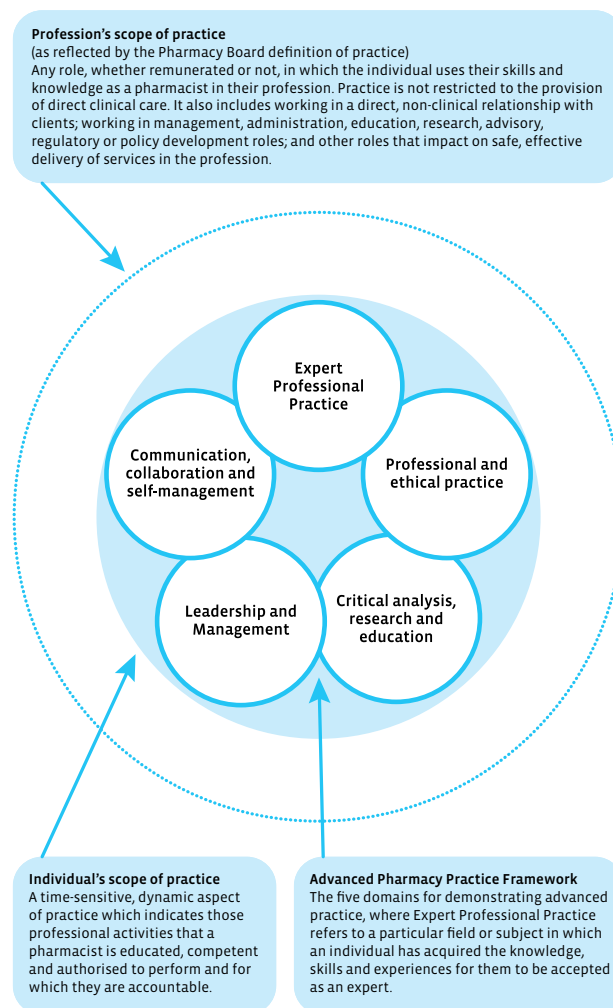
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Summary

- The impetus for an advanced practice framework grew from the review of the National Competency Standards Framework for Pharmacists in Australia in 2010.
- In 2011, the Advanced Pharmacy Practice Framework Steering Committee (APPFSC) was established with representative membership of pharmacy organisations (*Australian Association of Consultant Pharmacy, The Australian College of Pharmacy, Australian Pharmacy Council, Council of Pharmacy School Australia and New Zealand, National Australian Pharmacy Students' Association, Pharmaceutical Defence Limited, Pharmaceutical Society of Australia, Pharmacy Board of Australia, Professional Pharmacists Australia, The Pharmacy Guild of Australia, The Society of Hospital Pharmacists of Australia*) in Australia.
- The APPFSC developed the Advanced Pharmacy Practice Framework (APPF). This was released in October 2012.
- The APPF was designed to be sufficiently flexible to serve as a template for describing advanced practice expectations in all areas of professional practice (as seen in Figure 1).
- In December 2013, the Australian Pharmacy Council (APC) was endorsed via the APPFSC as the independent entity being responsible and accountable for the credentialing of advanced practitioners in Australia.
- In 2015, APC began a Credentialing of advanced practice pharmacists pilot programme, to test the APPF and APC policies/procedures prior to implementing a full roll out of an advanced practice credentialing programme.
- One hundred and thirty-eight Expressions of Interest were received from pharmacists wanting to be part of the pilot. Fifty were selected to participate. The participants were selected across a broad range of pharmacy practice environments (e.g. hospital, community pharmacy, industry, research, education).

Figure 1: Domains for demonstrating advanced practice in Australia within an individual's scope of practice for the purposes of credentialing.



Tools, frameworks and support mechanisms

The Advanced Pharmacy Practice Framework (APPF) for Australia was based on the UK CoDEG Advanced and Consultant Level Competency Framework and adapted for Australian needs.

The Australian Pharmacy Council (APC) undertook a literature review of advanced and extended practice in pharmacy and other health professions in 2013. This project informed the development of a contemporary and sustainable pathway for recognition of pharmacy practitioners in extended and advanced practice roles. See Advanced and Extended Pharmacy Practice - an environmental snapshot.

In February 2015, the APC developed:

- Evidence Guide - evaluation and credentialing of advanced practice pharmacists;
- Application form - credentialing of advanced practice pharmacists.

Both documents were prepared for the APC Credentialing of advanced practice pharmacists pilot programme. The APC Evaluation Standards, Policies and Procedures and Evidence Guide were developed through a process involving two rounds of stakeholder consultation.

Alignment with national strategies for healthcare services and delivery

A fundamental premise of effective health care is the provision of services that meet the needs of the public. When these needs change, appropriate modification to the type and manner in which health care services are delivered is required.

Credentialing of advanced practice is not intended to be applied in a way that restricts or constrains the delivery of professional services. The credentialing of advanced practice pharmacists will provide a pathway for pharmacists to progress to a more prominent place as an expert in medicines use, recognised and respected by other health professions and the public, and encourages a culture of lifelong learning and on-going professional development.

Requirements for CPD/CE

The mandatory requirements for continuing professional development (CPD) for all registered pharmacists in Australia are specified in the Pharmacy Board of Australia's Pharmacy CPD registration standard. However, there are no specific requirements that link CPD to advancing practice or specialisation recognition. Of course, if pharmacists do not meet the CPD expectations as specified in the registration standard then their right to practise is at risk. It is expected that anyone pursuing advanced practice recognition would undertake CPD over and above that required for continuing registration.

There is also no formal academic pathway to specialisation and/or advanced practice in Australia, though it is envisioned that pharmacists who achieve the credential of Advanced Practice Pharmacist will have postgraduate qualifications.

Supporting regulation

The Australian Health Workforce Ministerial Council (AHWMC) has previously provided guidance to National Boards who are the regulators of healthcare professions in Australia (including the Pharmacy Board of Australia), on the approval of specialities in a health profession for the purposes of specialist registration under the National Registration and Accreditation Scheme. The AHWMC agreed that for approving specialties a case for action must be established and a range of feasible policy options considered, including self-regulation, regulatory and non-regulatory approaches, and their benefits and costs assessed. Consistent with this guidance, there is no regulation by the Pharmacy Board of Australia in recognising advancing practice and specialisation.

Professional recognition

The APC Credentialing of advanced practice pharmacists pilot programme will recognise the first wave of pharmacists in Australia with the credential of Advanced Practice Pharmacist. The post-nominal that will be used is Adv Prac Pharm. The duration of the credential is currently being determined. The APPF has three potential levels for professional recognition: L1 (Transition); L2 (Consolidation); L3 (Advanced).

Ongoing progress

The APC is undertaking (from January 2015 - September 2015) an initial pilot programme of credentialing of advanced practice pharmacists that will see the first wave of pharmacists credentialed in Australia. Candidates for recognition of advanced practice must prepare a practice portfolio for evaluation by a credentialing evaluator panel (each panel has three evaluators). Governance is by the APC Advanced Practice Credentialing Committee.

Timelines

April 2015:	Submission of practice portfolios;
May 2015:	Training of credentialing evaluators;
May – June 2015:	Evaluation of portfolios;
June – July 2015:	Portfolio interviews; and
August – September 2015:	Outcome notifications to pilot participants.

Lessons learned

Positives:

- A united commitment from pharmacy organisations in Australia to establish a steering committee and work together to develop an Advanced Pharmacy Practice Framework for Australia (via the APPFSC).
- Agreement of the pharmacy organisations to support a model for recognition of advanced practice and endorse the APC as the independent entity for credentialing of advanced practice pharmacists.
- Enthusiasm for recognition of advanced practice by the profession and support from member organisations, as reflected by support for the 2015 credentialing pilot.
- Member organisations as 'readiness support organisations' (RSOs) for their members, working together with APC.
- Profession-wide consultation process and feedback on APC guidance documents, policies, procedures and standards that will be used for credentialing of advanced practice pharmacists.
- Preparation of guidance documents and forms for the 2015 credentialing pilot e.g. Evidence Guide.
- A demonstration of the breadth and depth of the pharmacy profession as reflected by the mix of pharmacists selected for the pilot programme.
- Relatively smooth roll-out of pilot programme.

Challenges:

- "Genericising" the APPF in order to ensure its practical application for credentialing of advanced practice pharmacists from potentially all practice environments and expert areas.
- The pilot programme has chosen participants along all points of the advanced practice continuum to test that the APPF and associated APC policies and procedures can properly differentiate those that should be recognised at L1 (Transition); L2 (Consolidation); L3 (Advanced) However, it is clear that those likely at L1 and possibly L2 need a lot more support to prepare a practice portfolio for evaluation.
- Introducing new terminology and concepts (e.g. the concept of using practice portfolio for evaluation) and enforcing mandatory requirements such as the inclusion of multi-source feedback in practice portfolios.
- Consistency in provision of information between APC and the RSOs.
- Developing a robust and valid practice portfolio evaluation process.
- Timelines for the pilot and the volume of work for participants to prepare a comprehensive practice portfolio.
- Defining scope of practice and area of expert professional practice - it is clear that advanced practice applicants have broad expertise in leadership, research, education and communication, and are not just experts in 'oncology' or 'diabetes'.
- Communicating the message that the recognition process supports professional development; those evaluated at L1, or L2 have not 'failed' but will be provided peer advice on where to focus their professional development in order to pursue advanced practice recognition in future.

Key stakeholders

The pharmacy organisations are the key stakeholders, via an all of profession representative committee known as the Pharmacy Practitioner Development Committee (PPDC - formerly the APPFSC). The regulator (Pharmacy Board of Australia) is a member of the PPDC.

The implementation of the credentialing programme for advanced practice pharmacists, is being driven by the APC, the independent accreditation, and credentialing organisation. Once the pilot program is completed in 2015 and the evaluation results released, the pharmacy organisations will need to actively support the recognition of advanced practice more broadly through marketing and promotion to the profession, and not just via the PPDC.

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Canada: Pharmacy associations working collaboratively on a blueprint for pharmacy

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Summary

- Extended practice pharmacists and pharmacists with advanced prescribing authority exist in Canada, however there is no official definition for advanced practice or pharmacist specialisation.
- So far, pharmacists in Canada are encouraged to pursue certification by the Board of Pharmacy Specialists (BPS) in the USA if pursuing specialisation.
- In 2014, the Canadian Pharmacists Association and the blueprint for pharmacy outsourced a needs assessment of specialisation in pharmacy in Canada.
- Ensuring all pharmacists and key stakeholders (regulators, academia, employers, other healthcare professionals, patients etc.) have a straight forward definition for pharmacist specialisation is crucial before additional work can occur in Canada.

Tools, frameworks and support mechanisms

The blueprint for pharmacy is a collaborative initiative between all the major pharmacy associations in Canada. It is led by the Canadian Pharmacists Association (CPhA) and aims to catalyse, coordinate and facilitate the changes required to align pharmacy practice with the healthcare needs of Canadians.

A blueprint for pharmacy Steering Committee helped to develop an implementation plan to support the achievement of the Vision for Pharmacy in Canada: Optimal drug therapy outcomes for Canadians through patient-centred care.

The Canadian Council on Continuing Education in Pharmacy (CCCEP) agreed to take a leadership role in the implementation of the Key Actions 1.4 (Lifelong Learning) and 1.7 (Continuing Professional Development and Continuing Education - CPD/CE) of the blueprint for pharmacy implementation plan and co-hosted a CPD/CE Policy Summit in 2010 with the Canadian Pharmacists Association. At this summit, eight Action Ideas were identified for implementing the framework and system for recognition of specialisation and specialty areas of pharmacy practice.

1. Key stakeholder meeting to define and describe key concepts such as special area of practice and specialty and to develop a schedule for implementation;
2. Development of a white paper on credentialing and one specialising in pharmacy;
3. Conduct needs assessment for certification and recognition of specialties;
4. Develop a funding model;
5. Meeting with national certification bodies to engage and get buy-in;
6. Meeting with educators to discuss role and get buy-in;
7. Communication strategy to inform pharmacy professionals, public, etc. about the value of special areas of pharmacy practice and how they would benefit from its implementation;
8. Establishment of pharmacy special area of practice and specialisation certification system.

These Action Ideas are being followed up by the blueprint for pharmacy Steering Committee.

Alignment with national strategies for healthcare services and delivery

The blueprint for pharmacy is a long-term initiative designed to catalyse, coordinate and facilitate the changes required to align pharmacy practice with the health care needs of Canadians. The Vision for Pharmacy is: “Optimal drug therapy outcomes for Canadians through patient-centred care” (<http://blueprintforpharmacy.ca/about>).

Supporting regulation

There are limited regulations in place for specialist or advanced practice pharmacists in Canada. Two Canadian provinces have regulations in place for “advanced practice” pharmacists.

There is one for extended practice pharmacists in the Canadian Province of Alberta, where pharmacists can apply to the provincial pharmacy regulatory body for “additional prescribing authorisation”.

The process is tightly regulated and pharmacists must meet strict criteria to receive this extended practice designation (e.g. at least one year of experience working in a collaborative clinical team, additional clinical training, etc.). The additional prescribing authorisation allows the pharmacist to prescribe almost any medication, except for narcotics and controlled substances.

In Manitoba, pharmacists may obtain “extended practice authorisation”. Extended practice pharmacists are required to practice in a specialty area and provide satisfactory evidence of specialisation through qualifications listed in the regulations.

Further details on the extended scope of practice pharmacists can do in Canada can be found here:
<http://www.pharmacists.ca/index.cfm/pharmacy-in-canada/scope-of-practice-canada/>
<http://www.cmaj.ca/site/press/cmaj.121990.pdf>

Professional recognition

Upon completion of a residency, the resident may use the title designation of ACPR (Accredited Canadian Pharmacy Resident). All residency programs are accredited by a national accrediting agency.

Some clinical pharmacist jobs are now expecting the candidate to have completed a residency (financial incentives), but this is a minority of workplaces.

Ongoing progress

The on-going work is being performed under the auspice of the blueprint for pharmacy

- In 2010, the CPD/CE Policy Summit project identified a main action idea was to conduct a needs assessment for certification of specialities in Canada.
- In 2012, a Task Group on Specialisation in Pharmacy in Canada was established.
- In 2014, The CPhA called for a request for proposal for a needs assessment of specialisation in pharmacy in Canada.

Since then, a mixture of interviews and surveys has since been conducted for this needs assessment of specialisation in pharmacy in Canada.

Lessons learned

- Recognition for pharmacy specialisation has been largely driven by pharmacists themselves.
- The drive for pharmacist specialisation needs to be based on improvements to patient care and/improved efficiencies within the health system.
- The term ‘pharmacist specialisation’ is used in a wide variety of contexts and no single definition is agreed upon in Canada. Ensuring all pharmacists and key stakeholders (doctors, nurses, patients and administrators) have a straight forward definition is crucial before additional work can occur in Canada.
- There needs to exist a distinction between pharmacist specialisation and advanced practice.
- Although many pharmacists support the development of a Canadian-specific accreditation program for pharmacist specialisation, given the size of Canada’s pharmacist population, it may be more viable to use international certification bodies instead of creating a Canadian-specific one.

Key stakeholders

Blueprint for pharmacy (<http://blueprintforpharmacy.ca/>).

Professional organisations: Canadian Pharmacists Association (CPhA), Canadian Council on Continuing Education in Pharmacy (CCCEP), Pharmacy Examining Board of Canada (PEBC), Canadian Society of Hospital Pharmacists (CSHP), Provincial Pharmacy Regulatory Authorities, National Association of Pharmacy Regulatory Authorities (NAPRA).

China: Clinical pharmacy recognised and supported by standardised training

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Summary

- After introducing the concepts of clinical pharmacy in the 1970's and pharmaceutical care in 2000 in China, pharmacists are expected to provide patients with professional instruction on proper administration and caution for medications, and to provide advice to physicians with therapeutic drug monitoring and necessary adjustment on dosage regimens, especially for those patients with impaired renal function or hepatic function.
- After prolonged effort, the concepts of clinical pharmacy and clinical pharmacists were officially recognised in 2002 (Provisional Rules of Pharmaceutical Affairs Management of Medical Institutions) and 2010 (Pharmaceutical Affairs Management of Medical Institutions).
- More recently pharmacists have been encouraged to practice in several specialisations including Total Parenteral Nutrition (TPN), anti-coagulation, Intensive Care Units (ICU), oncology, and pneumology.
- In order to maintain standardised training of clinical pharmacists, the Ministry of Health issued a guideline on training and accredited nearly 100 qualified training sites nationally.

Alignment with national strategies for healthcare services and delivery

The Chinese government promotes rational use of medications, especially antibiotics. Pharmacists were found to play active roles against irrational use of medications, e.g. higher dose or longer duration, improper medication or intervals, etc. Therefore, pharmacists are encouraged to review prescriptions and medical orders in order to prevent improper use of medications since 2012.

Requirements for CPD/CE

Pharmacists are encouraged to undertake CPD and are required to get a certain number of credits each year. These can be gained in a variety of ways including attending conferences, seminars or training courses. These activities are not linked to university yet.

Ongoing progress

There is a need for the following key factors to be present to support development of professional recognition:

- Clear standards to describe and evaluate specialisation competencies;
- A clear evaluation and accreditation system;
- An authorised accreditation institution;
- Qualified evaluators who have the requisite education background and practical experience;
- A demonstrated need from patients and physicians;
- A series of exams and reviewing books;
- Textbooks and guidelines need to be translated into Chinese so it becomes more accessible for pharmacists to read and implement best practice.

Lessons learned

Some of the lessons learned during this process are that hospital pharmacists already provide pharmaceutical care. The curricula in pharmacy schools and universities are out of date so that the capacities of graduates cannot meet the contemporary needs of hospital pharmacy.

Key stakeholders

Professional organisations are the major force driving development of more advanced practice through professional conferences, seminars and training courses.

Great Britain (UK): Professional recognition programme of advanced practice

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Summary

- RPS members have access to a range of resources and services that support their professional development and help them meet the behavioural competencies outlined in the Advanced Pharmacy Framework (APF).
- Stepping up to the challenge of meeting changing patients' needs requires support and opportunities to develop and provide evidence of excellence. This is the role of the Royal College in partnership with the profession itself.

Tools, frameworks and support mechanisms

The RPS has developed its own resources building on work of the Competency Development and Evaluation Group (<http://www.codeg.org/>). These now extend to handbooks, guidance, support tools and standards.

The RPS Faculty provides the professional recognition programme of advanced practice across Great Britain and (starting in) Northern Ireland. The RPS Faculty provides pharmacists with support networks, access to experts and mentors across all sectors, and at all stages of their professional careers, alongside opportunities to develop professionally, to build a portfolio of transferable knowledge and skills that is widely recognised. Available to RPS members who have completed their first two to three years of practice post registration, the Faculty supports them throughout the whole of their career as a more advanced practitioner.

RPS members have access to a range of resources and services that support their professional development and help them meet the competencies outlined in the APF, including:

- a suite of Faculty resources to support professional development and advancement within the Faculty;
- professional curricula spanning clinical, specialist, generalist and science, and generic areas such as management, leadership, mentoring and support and, research and evaluation;
- a portfolio to enable recording of professional development, which is then submitted as part of a portfolio review.

Once a pharmacist's development has been assessed and recognised, they receive post-nominals that align to their stage of practice (see Table 1). This provides a means of demonstrating their professional experience and expertise to their patients, the public and their employer.

Table 1: Faculty stages, descriptions and post-nominals.

Faculty Stage	Description	Post-nominals
Advanced Stage I "Established, Experienced" Practice	Stage I Faculty member You are established in a role, performing well, and advanced beyond your foundation practice years OR Are at a stage of specialisation and advancement beyond your early years of practice.	MFRPSI
Advanced Stage II "Excellent" Practice	Stage II Faculty member You are an expert in an area of practice and are experienced. You routinely manage complex situations and are a recognised leader locally/regionally.	MFRPSII
Mastery "Exceptional" Practice	Faculty Fellow You are a nationally recognised leader in an area of expertise (often internationally), with a breadth of experience and expertise. You are recognised as a leader in community pharmacy; have a business/corporate leadership role, or are a business/strategic leader in community.	FFRPS

Alignment with national strategies for health care services and delivery

In 2010, the RPS started a process of long-term strategic planning for a workforce wide professional recognition process and scheme. The RPS is in a unique position to provide leadership for workforce development that is independent of provider organisations, government policy changes and other vested interests.

Maintaining professional standards of workforce development and providing access to useful quality assured development processes are a key function for professional leadership bodies. More recently the Report by Robert Francis³, considers the responsibility of professions, the professionals and the wider workforce. Don Berwick² followed this by recommending:

“Mastery of quality and patient safety sciences and practices should be part of initial preparation and lifelong education of all health care professionals, including managers and executives”

Acknowledging the professional privilege to practice, and associated responsibilities, are key when developing tools to support and empower the profession to play a key clinical leadership role in optimising medicines for the best care of patients. Stepping up to the challenge of meeting changing patients’ needs requires support and opportunities to develop and provide evidence of excellence. This is the role of the Royal College in partnership with the profession itself.

Requirements for CPD/CE

On looking back at the development of continuing professional training for health professionals during the past 25 years, it is of interest to note the long-term impact of the Kennedy report³ on all health care practice. The requirement of pharmacists, doctors, and all other health professionals, to demonstrate an active engagement with professional development is now required practice. It is salutary to note that “professional regulation” as a process usually results after a failure in patient care.

The General Pharmaceutical Council (GPhC) is the regulator for pharmacists in Great Britain. Its CPD framework is mandatory for all pharmacists who are expected to maintain their professional capability throughout their career by keeping CPD records. These requirements are the same whether you are a member of the RPS’s Faculty or not. There is a potential for Faculty membership to be linked to CPD/Continuing Fitness to Practice (CFtP) in future, especially as the GPhC moves from a set number of CPD records towards a continuous cycle of professional development. It is the ambition of the RPS Faculty that membership and on-going development within the Portfolio will provide the GPhC with the evidence required for CFtP. One system for the profession.

Supporting regulation

The only post registration annotation to the professional register in Great Britain is for independent pharmacist prescribers; these regulations came into effect in 2006.

A pharmacist independent prescriber may prescribe autonomously for any condition within their clinical competence. This currently excludes three controlled drugs for the treatment of addiction.

In order to qualify as an independent prescriber, pharmacists must complete a GPhC-accredited programme. On successful completion of the programme, pharmacists receive a practice certificate in independent prescribing, making them eligible to apply for annotation on the register.

Professional recognition

Post-nominals are available to Faculty members as recognition of their stage of advancement (<http://www.rpharms.com/faculty/faculty-membership.asp>). Details are in Table 1 on page 29.

Ongoing progress

The following six strategic imperatives for the RPS Faculty and Foundation Programmes have been identified as essential to deliver the potential of the RPS Faculty by 2020.

Strategic Imperative I: Every member will be supported at every stage of their career, through the RPS Foundation and Faculty programmes, across all stages and areas of practice.
Strategic Imperative II: Every member will have opportunities to develop and advance, and will have support from RPS Mentors and Tutors.

Strategic Imperative III: Every member will have access to a roadmap of quality assured education, training and development opportunities, mapped to the RPS career stages, from Foundation to Faculty, through our accredited provider models.

Strategic Imperative IV: Every member will have access to support for building their portfolio and gathering evidence ready for a quality assured assessment process.

Strategic Imperative V: The quality of support, development and assessment processes will be highly regarded:

- as a model to support continuing professional development by GPhC (accredited as the gold standard for revalidation / Continuing Fitness to Practice);
- by employers as a requirement for advanced roles across sectors;
- by education providers as a route for career support;
- by other Royal Colleges, professions, regulators, commissioners and by patients and the public, as a consistent and reliable means of assuring the quality of services provided by Faculty Members and Fellows.

Strategic Imperative VI: The RPS Faculty and foundation programmes will be financially viable within the next five years, through delivery of quality assured, recognised processes of support, development and assessment.

Lessons learned

Submissions to the Faculty are currently based on defined deadlines across the year. To improve engagement with members of the profession, RPS members will be allowed to submit their portfolio at any time throughout the year.

Development and implementation of the strategic initiatives (described above) underpins the Faculty's five year strategic approach.

The RPS Faculty and Foundation Programmes support the RPS in its wider role in the public health arena through campaigning for change, advising government, and taking part in national debates on pharmacy, clinical and public health issues.

Key stakeholders

The Royal Pharmaceutical Society in partnership with pharmacy specialty groups and members of the profession across GB.

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India: Advance pharmacy practice via development of regulations

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Summary

- A Pharm.D course was introduced in 2008 with an emphasis on clinical practice, professionalism and training in essential professional and generic skills.¹
- Pharmacy Practice Regulations, introduced in 2015 emphasise patient counselling, pharmaceutical care, pharmacy ethics and defining duties and responsibilities of pharmacist to the public and profession thus making pharmacists accountable to society.²
- Continuing education is a mandatory requirement for renewal of registration.²
- Diploma in pharmacy is the minimum qualification for registration to practice in India. Since 2014 there has been an opportunity for diploma pharmacists to upgrade their qualification to Bachelor of Pharmacy (Practice).³
- There are Minimum Qualification for Teachers in Pharmacy Institutions defining the number, qualification, experience etc. for pharmacy teachers.⁴

Tools, frameworks, support mechanisms

The Pharmacy Council of India (PCI) is aiming to advance pharmacy practice via development of regulations to define aspects of practice such as code of pharmacy ethics; patience, delicacy and secrecy; the role of the pharmacist for promotion of rational drug use; and pharmacist's conduct during counselling.

These regulations are designed to ensure good pharmacy practice, emphasise highest quality assurance in patient care, and define their statutory duties and responsibilities of pharmacists thus making them accountable. The ultimate aim is to ensure that patients are not neglected by describing the obligations of the pharmacist to patients.

Alignment with national strategies for healthcare services and delivery

The Indian National Health Policy recognises the significant role played by pharmacists, the pharmaceutical industry and pharmacy professionals.

The PCI ensures there are a sufficient number of skilled and competent pharmacists. Minimum national standards have been set, for example:

- The availability of clinically trained pharmacists (after six years of PharmD study) has had a positive impact on more than 60,000 patients who visit more than 200 hospitals associated with a PharmD programme. An improvement in the responsible use of medicines is of benefit to patients and hospital management.
- There has been strengthening of the government pharmacovigilance programme and there is now a database of adverse drug events being reported. The Pharmacy Council of India has been successfully producing well trained competent pharmacists to meet the different needs of the country in this sector.

It is proposed to utilise additional funding for continuing education of pharmacists and to strengthen and upgrade pharmacy institutions. Proposals include establishing a National School of Pharmacy with the objective of producing clinically trained pharmacists who will play a significant role in pharmacovigilance in the country.

Requirements for CPD/CE

There is a requirement for continuing education.

Supporting regulation

1. Pharmacy Practice Regulations, 2015.
2. Minimum Qualification for Teachers in Pharmacy Institutions Regulations, 2014.
3. Pharm.D. Regulations, 2008.
4. Education Regulations, 1991.
5. The Bachelor of Pharmacy (B.Pharm) Course Regulations, 2014.
6. The Master of Pharmacy (M.Pharm) Course Regulations, 2014.
7. Bachelor of Pharmacy (Practice) Regulations, 2014.

Ongoing progress

The vision and mission of the PCI is to continuously evolve pharmacy course curriculum towards meeting present and future societal needs so as to prepare a pharmacist workforce with required competencies. There is a focus on continuing education of in-service pharmacists and pharmacy faculty.

Establishment of National Task Force for Quality Assurance in Pharmacy Education to motivate the pharmacy institutions to provide more than minimum prescribed standards.

National School of Pharmacy as a centre of excellence.

On-going work includes periodically reviewing the Pharmacy Act and regulations to ensure they are contemporary with latest developments in the field of pharmacy education and practice.

Working on a common platform with other stakeholders for exchange, mentoring and learning with a focus on development of leadership skills.

Lessons learned

1. Successful implementation of the PharmD course has advanced practice by enabling more patient centred care.
2. Maintenance of the prescribed standards by the pharmacy institutions has ensured the quality of the pharmacist workforce.
3. Mandatory continuing education for pharmacists and teaching faculty has helped in enhancing the competencies, knowledge and skills that has benefit all stakeholders
4. Introduction of new regulations has ensured that compliance to erstwhile guidelines and policies now become mandatory by law. This will help in ensuring and uplifting the standards of pharmacy education and profession.

Challenges

1. Indian pharmacy qualifications are designed to meet the varying needs of the country as well as other regions. Hence some of the qualifications may be different from those that are globally, and may not meet the needs of such countries and regions.
2. There is a shortage of pharmacy faculty, in the areas of pharmacy practice to provide PharmD students with the advanced experiential training. One of the strategies with which this can be overcome is by collaboration with international universities, to hire their faculty members as visiting professors will help in exchange of resources that will support the development of the PharmD program in the right direction.
3. Community and hospital pharmacists predominantly hold a diploma in pharmacy qualification and are now seen to be under qualified. The introduction of a bridging course will provide an opportunity to pharmacists holding diploma qualification to upgrade their qualification to Bachelor of Pharmacy (Practice). Similarly, the first cohort of PharmD graduates (2014) are now employed in hospitals and this is expected to address the requirements of clinical pharmacy practice.

Key stakeholders

The work is done by the regulator, based on the input received from various professional associations and other stakeholders (e.g. pharmacy institutions, general public).

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Ireland: Nationally approved model of continuing professional development

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Summary

- A CPD system is currently being developed by the Irish Institute of Pharmacy, which will require pharmacists, to demonstrate generalist competency requirements. In time, it is anticipated that this system will evolve to facilitate specialist and advanced competency.
- For the provision of advanced services, such as administration of seasonal influenza vaccination, pharmacists must undertake additional training, which has been accredited by the Regulator.
- The Hospital Pharmacists Association of Ireland is engaged with the Health Service Executive to recognise specialism within hospital pharmacy. The post of specialist pharmacist was first recognised with the appointment of pharmacists for hospital based hepatitis C services.

Tools, frameworks, support mechanisms

The development of advancing practice and specialisation has largely been a 'bottom up' approach with pharmacists seeking out postgraduate courses to undertake. The one exception to this has been the taught Masters in Hospital Pharmacy in Trinity College for which there are six paid positions in university teaching hospitals each year. This course has been available since the 1990's.

The representative body for hospital pharmacists has also engaged with the employer (largely a state run health system) to achieve recognition in job descriptions and posts for advanced practice. Agreement was reached in November 2011 but the agreed structure has not been implemented to date.

The Pharmaceutical Society of Ireland (PSI) is looking at hospital pharmacy practice as a priority for 2015. It plans to carry out a review to explore and enhance the contribution of pharmacy, both community and hospital, to the health system, and the safe and effective care of patients, supporting good practice in expanded pharmacy services.

It will engage with stakeholders to progress development of hospital pharmacy practice (http://www.thepsi.ie/tns/publications/CorePublications/publications_2015.aspx).

The Irish Institute of Pharmacy (IIOP, www.iiop.ie) has been established to enable pharmacists to engage with the model of CPD approved by the PSI. The Institute will deliver an increasing range of accredited programmes and will introduce the Quality Assurance system component of the CPD model. As the learning needs change the IIOP will support the development and recognition of advancing practice and specialisation.

Alignment with national strategies for healthcare services and delivery

The IIOP will work with the PSI (Regulator) the Department of Health and the Health Service Executive (delivery body for Health) to identify the skills required by pharmacists to support national healthcare strategies. An annual work plan for pharmacy CPD programmes will be agreed and signed off to ensure that the development of advanced practice and specialisation is aligned with national strategies for healthcare services and delivery. Similarly, future advanced frameworks will be reflective of the requirements of the Irish healthcare system.

The hospital structure is currently undergoing re-organisation. There will be seven hospital groups to provide services for specific regions. It is considered that these groups will provide for all the health needs of the population in the region. The Report on the Reform of Hospital Pharmacy is currently being aligned to the new structures with a view to implementation (<http://www.hpai.ie/uploads/Review2012.pdf>).

Requirements for CPD/CE

This is not yet defined, as advanced practice has not yet been recognised in job descriptions. In practice pharmacists undertake appropriate CPD to support their practice.

The CPD for Ireland is an outcomes-focused model, which involves ePortfolio reviews and practice assessments. The focus is on reflective practice, and pharmacists are encouraged to undertake CPD activities that are relevant to their practice in a way that is appropriate for them. There is no requirement to demonstrate completion of hours or courses of training or to accumulate points. Instead, completion of an ePortfolio, which supports reflective practice, is a central component of the system.

ePortfolio reviews: Pharmacists are required to use the IIOP ePortfolio to maintain a contemporaneous record of their CPD. Pharmacists will be selected at random once in every five year cycle and required to provide an extract from their ePortfolio to demonstrate that they have been engaging with CPD.

This extract will need to demonstrate that the pharmacist has completed regular self-assessment (using the core competency framework) and that they have included a range of CPD records which will allow them to meet requirements.

These requirements will be set each year by a group of peers and it is anticipated that they will evolve over time. Requirements will be communicated clearly on an on-going basis to pharmacists. Reviews are carried out by trained peers. Reviewers will seek evidence that pharmacists are engaging in CPD, in a way that is relevant to their role and which will result in enhanced patient care, and which meets the requirements that have been set.

Practice reviews: Each year a percentage of pharmacists who are in patient-facing roles will be randomly selected and required to participate in a practice assessment. This is similar to the process which is in place in the Ontario College of Pharmacists. Pharmacists will be required to undertake a clinical knowledge assessment and to participate in a number of simulated scenarios.

Secondary legislation is currently being drafted which will give legal effect to the CPD system (<http://www.thepsi.ie/consultations.aspx>) which is based on a core competency framework (http://www.thepsi.ie/Libraries/Publications/PSI_Core_Competency_Framework_for_Pharmacists.sflb.ashx). However, as more advanced frameworks are developed and as specialisation and credentialing evolves, the CPD requirements can be expected to evolve to reflect this.

Supporting regulation

The Pharmacy Act 2007 (Section 7(1)(d)) (http://www.thepsi.ie/Libraries/Legislation/Pharmacy_Act_2007.sflb.ashx) states that the PSI has responsibility for ensuring that “pharmacists undertake appropriate continuing professional development, including the acquisition of specialisation”. Under secondary legislation, which is currently in the process of public consultation (<http://www.thepsi.ie/consultations.aspx>), the IloP is the management body that is responsible for the establishment and management of an appropriate CPD system to support the development of pharmacy practice.

Ongoing progress

Although Ireland has not yet developed a formal programme of specific professional development to assist pharmacists in evolving their advanced and specialised practice, the PSI has established the IloP to oversee the development and management of the CPD system for the pharmacy profession in Ireland. The PSI will work with the IloP in any future development of the accreditation and recognition of specialisation in the pharmacy profession.

Lessons learned

In the absence of a national instruction such as happened in the UK, the pharmacy profession will have difficulty as a small profession in being heard at the national level.

The publication of the European statements on hospital pharmacy has been a welcome development as it sets the broad scope of the role of the profession allowing each country to progress from a different starting point and can be used to elaborate on the potential of hospital pharmacy (<http://www.eahp.eu/practice-and-policy/european-statements-hospital-pharmacy>).

Hospital pharmacists avail of on-going academic courses to a very significant degree and this attitude has helped to drive practice and standards in the interest of patient care and patient safety – this has enabled the “bottom-up” approach to the development of advanced practice with hospital pharmacy – albeit as yet not formally recognised.

The developments in the UK and Northern Ireland have also been of assistance – both in terms of practice development and educational courses e.g. <http://www.qub.ac.uk/schools/SchoolofPharmacy/ProspectiveStudents/PostgraduateTaught/PrescribingforPharmacists/>

Key stakeholders

The development of advancing practice, up until now has been driven by a range of bodies including the Regulator, representative bodies and pharmacy chains.

In future, the recently established Irish Institute of Pharmacy will be responsible for supporting the development of pharmacy practice, which will include development and recognition of advancing practice and specialisation.

Japan: Lifelong learning support system includes a clinical ladder with 10 steps of skills development

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Summary

In Japan, there are some systems for pharmacists' credentials:

- Certificated pharmacists through continuing education programme.
- Certifying pharmacists through related societies such as Japanese Society of Pharmaceutical Health Care and Sciences, Japanese Society of Clinical Pharmacology and Therapeutics, Japanese Society for Emergency Medicine, Japanese Society of Chemotherapy, etc. Other certifying pharmacist is "Sports pharmacist" who has a role in promoting prevention of doping in athletes.
- Specialist pharmacists are certified by the Japanese Society of Hospital Pharmacists in the fields of cancer, infection control, psychiatric, HIV infection, pregnancy or lactation etc.

Tools, frameworks, support mechanisms

To support the development of advancing practice and specialisation, the Council on Pharmacists Credentials (CPC - an independent agency) evaluates and accredits Continuing Education Credentialing Programmes, Special Training Programmes, and Pharmacy Specialties Credentialing Programmes in order to increase pharmacists' competence and professional role.³

Although CPC accredits the pharmacy educational programmes, the recognition itself is granted by the relevant organisations, including pharmacy-related professions, academic fields, and educational bodies in Japan.³

The process and standards vary in each specialty area, and these are developed by the awarding organisations.³ For example, the Japanese Society of Hospital Pharmacists (JSHP)

provides some internship programmes to become a specialist pharmacist, while the other awarding bodies provide textbooks and lectures, seminars or workshops.

The Japanese Pharmaceutical Association (JPA) developed and launched 'JPA life-long learning support system (JPALS)' in April 2012 to support continuing professional development (CPD). This system currently supports CPD at a foundation level and a support system for advancing practice is underway.²

Alignment with national strategies for healthcare services and delivery

There is little discussion about pharmacist specialisation in national (or regional) strategies for healthcare services and delivery. However, due to the advancement of pharmacotherapeutics and medical sciences, it is natural that pharmacy practices will also advance. In order to maintain the quality of advancing practice by pharmacists, a support and recognition system for pharmacist specialists is essential.³

The government is planning to establish an 'Integrated Community Care System' by 2015 to provide life-long healthcare for the elderly in the community.⁴ In this system, pharmacists are expected to play an important role to provide effective care to the elderly. It will be necessary for pharmacists to have advancing skills and expand their professional role to be involved in this initiative.

Requirements for CPD/CE

There is no mandated requirement for CPD/CE of pharmacists in Japan. However, to be recognised and remain a pharmacist specialist, often CPD/CE is mandated by the credentialing organisation.⁵

There is also no specific requirement relating to university-linked postgraduate education to be a pharmacist specialist, although some universities provide life-long learning education for pharmacists.

JPALS developed a 'clinical ladder' to classify pharmacists into level 1 to 10 by their skills. Currently support for levels 1 to 5 (foundation level) pharmacists is provided, and support for levels 6 to 10 (advanced level) pharmacists is in development linking to areas of specialisations.⁶

Professional recognition

Only the Japanese Society of Pharmaceutical Health Care and Sciences certified 'Oncology Pharmacist' is a nationally recognisable title for pharmacy specialisation.⁷ Pharmacists can also become a board certified pharmacy specialist in a particular field.

Ongoing progress

The Japanese government is going to establish an “*Integrated Community Care System*” by 2015 to provide life-long care for elderly people in the community.⁸ It is expecting pharmacists to play an important role to provide appropriate care to elderly people in community. There is encouragement for health professionals, including pharmacists, to establish “Integrated Community Care Systems” in each community. This may be an opportunity to progress the development and professional recognition of pharmacists.

Further, JPALS for advanced level pharmacists is underway.⁶

Lessons learned

Japanese pharmacists may not be well recognised as healthcare professionals in the healthcare system. Some do not understand that the separation of prescribing and dispensing is necessary for responsible use of medicines (in 2012 the rate of separation was approximately 66%). It is advocated that the role of pharmacists is one of the keys to maintaining the health of community people.

Further, there is no standardised pathway for the professional recognition of pharmacist specialists at the moment, although the areas of advancing practice are growing. To maintain and further improve the quality of the established and future advancing practice, clear standards for professional recognition for pharmacist specialists would be needed.

Key stakeholders

There are three main professional organisations of pharmacists: Japanese Pharmaceutical Association (<http://www.nichiyaku.or.jp/e/default.html>), Japanese Society of Hospital Pharmacists (<http://www.jshp.or.jp/> - no English page) and Japanese Society of Pharmaceutical Health Care and Sciences (<http://www.jsphcs.jp/> - no English site).

They are mainly driving the development and recognition of advancing practice and specialisation of pharmacists.

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Malaysia: MAP to support provision, credentialing and accreditation of specialists and advanced level practitioners

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Summary

- In Malaysia clinical pharmacy has been introduced in public hospitals since the 1990's. The first Masters program in clinical pharmacy was offered by the Universiti Sains Malaysia (USM) in 1992. The graduates take leading roles in developing basic and advanced clinical pharmacy practice in the country.
- Although no formal specialisation training and recognition has been established, clinical pharmacists have developed practice in certain areas such as paediatrics, psychiatry, cardiology, endocrinology, oncology, respiratory, ICU, etc.
- In 2003 the Certified Smoking Cessation Service Provider (CSCSP) programme was introduced by the Malaysian Pharmaceutical Society (MPS) and Malaysian Academy of Pharmacy (MAP) with the support of the Ministry of Health (MOH) Malaysia. Up to 2015, more than a thousand pharmacists have gone through this training and become certified smoking cessation providers in community pharmacies and hospitals. An online CSCSP module was launched in 2009 (<http://www.acadpharm.org.my/index.cfm?&menuid=2>).
- Since 2004 pharmacist-managed clinics, known as “Medication Therapy and Adherence Clinic (MTAC)” have been introduced. The aims of the clinic are to optimise the patient's drug therapy, to increase the patient's knowledge on diseases and the medicines, and to increase the patient's adherence to their medications. The MTACs increase collaboration between pharmacists and medical doctors.

- At present, various MTACs have been created and regularly follow up the patients. These include: MTACs in diabetes, respiratory, psychiatry, nephrology, neurology, heart failure, retroviral disease, haemophilia, psoriasis, rheumatology, geriatric and anticoagulant (warfarin). Pharmacists need to undergo training before starting to provide these services. (<http://www.pharmacy.gov.my/v2/ms/entri/perkhidmatan-medication-therapy-adherence-clinic-mtac.html>).

Tools, frameworks, support mechanisms

Pharmacists who provide clinical services have to go through training with structured modules developed by the Clinical Pharmacy working committee of the Pharmaceutical Services Division, MOH. In addition they have to undergo observation and hands-on training in appointed training institutions (hospitals). The duration of these trainings are normally 2-3 weeks. Protocols and guidelines have been published to guide these pharmacists (<http://www.pharmacy.gov.my/v2/ms/entri/perkhidmatan-medication-therapy-adherence-clinic-mtac.html>). Trainees who complete and pass the assessment are provided with a certificate.

As part of professional development, pharmacists working in the public sector are given opportunity to undertake postgraduate study up to Masters and PhD levels. As part of international partnerships and collaboration, selected pharmacists are sent overseas every year for short course training in specialised areas such as oncology, palliative care, rheumatology, paediatric and anti-coagulant management etc.

Alignment with national strategies for healthcare services and delivery

The expected outcomes of the Country Health Policy (10th Malaysian Plan) are to ensure provision of, and increase accessibility to quality healthcare, and public recreational and sports facilities to support active healthy lifestyle. Human capital development is one of the strategies outlined to achieve these outcomes (http://www.moh.gov.my/images/gallery/Report/Country_health.pdf).

The Pharmaceutical Services Division has the task to provide more pharmacist experts in specialised areas, such as geriatrics, paediatrics, nephrology, oncology, cardiology, etc. This is also in line with the human development and strategies in the National Medicine Policy 2012 (<http://www.pharmacy.gov.my/v2/sites/default/files/document-upload/buku-dunas.pdf>).

Requirements for CPD/CE

The Malaysian Academy of Pharmacy (MAP <http://www.acadpharm.org.my>) is the professional body dedicated to advancing the potential of pharmacists through education, advocacy, research and service towards the betterment of society and the nation at large. This is in tandem with the mission statements:

1. To provide continuing professional development (CPD) opportunities in support of lifelong learning among pharmacists.
2. To provide a platform for effective sharing of knowledge, skills and experience among pharmacy educators, researchers and practitioners as well as policy makers.
3. To advocate and facilitate provision, credentialing and accreditation of specialists and advanced level practitioners in pharmacy practice.
4. To promote innovations in pharmacy practice, research and education.

Currently, there is no specific requirement related to postgraduate education but MAP is preparing to offer tutorials for pharmacists planning to sit for the coming American BCPS (Board Certified Pharmacotherapy Specialists).

Supporting regulation

Specialisation for pharmacy has not being formalised although it has been recognised to be the future plan for the careers of pharmacists in Malaysia, especially those working in public sectors.

At present the development and recognition of advanced practice and specialisation is being regulated by circulars from the Pharmaceutical Services Division, Ministry of Health(MOH) Malaysia.

Professional recognition

The Pharmaceutical Services Division, MOH is currently in the process of developing proposals and guidelines for professional recognition in two categories:

- i) Pharmacy Specialisation
- ii) Credentialing & Privileging

Ongoing progress

At present, the Pharmaceutical Services Division with cooperation from universities and MAP are in the process of preparing proposals and guidelines for pharmacy specialisation as well as modules for residency programs. The two-year residency program is designed to produce clinical pharmacists who are competent in providing pharmaceutical care in the selected specialised areas. At the start of this process, a small number of pharmacists with a PhD in clinical pharmacy will be selected to undertake special modules and later will be appointed as preceptors to this programme. The target timeframe for implementation of the residency program is 2017, with the first pharmacists accredited as specialists in 2019.


The Pharmacy Specialist Accreditation Board (PSAB) will be responsible for certifying the successful candidates [the residency program will have the duration of 2 years. The first 6 months there will be a written exam. Subsequently the assessment will be from case reports, case presentations, research projects and portfolio (log book)], who will be rewarded special additional allowances in their monthly revenue.

On the other hand, for credentialing and privileging, the Pharmaceutical Service Division has set the criteria for application. These may include a duration of practice in a specific area and prior training attended in the specialty area. The National Credential Committee (NCC) will be responsible for vetting their credentials.

Lessons learned

In Malaysia, the 1980's saw a shift from product-oriented services to patient-focused care. Since 2000, clinical pharmacy has expanded into specialised services that now include medication therapy adherence clinics (MTACs), critical care, cardiology and many more. The transformation is inevitable for pharmacy services in Malaysia to be in line with the current developments worldwide.

The Pharmaceutical Services Division, MOH ensures that the pharmacy services offered are of good quality and are achieving the required standards. Among the measures taken include standardisation of practice and expertise development programme. Expertise development programmes, which are training given to the pharmacists, such as the residency programme and the special training for pharmacist-run clinics, which are called: Medication Therapy and Adherence Clinic (MTAC).




Two main challenges:

1. Preparedness of the pharmacists (regarding their competence, skills, knowledge and making the change to become more patient focus).
2. Recognition and collaboration from the medical doctors and other health professionals.

Key stakeholders

In Malaysia, advanced pharmacy practice is mostly carried out in public hospitals and health clinics. It is mainly driven by:

1. The Pharmaceutical Services Division of the Ministry of Health, by endorsing the practice and providing jobs (vacancies) in the practice area and training to pharmacists.
 2. The Schools of Pharmacy, by providing the postgraduate training in clinical pharmacy and pharmacy practice research.
 3. The Malaysian Pharmaceutical Society and The Pharmacy Academy, by providing CPD
 4. The institutions (hospitals and public health clinics).
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New Zealand: Government policy supports pathway for advanced practice, and credentialed services

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Summary

There has been intentional advocacy by the Pharmaceutical Society of New Zealand (NZ) since 2004 to create a funded pathway for advanced practice in NZ. This began by creating and implementing the Ten Year Vision (2004–2014) and advocacy with government to create policy that supported these roles.

Documents supporting this include:

- Development of NZ National Pharmacist Services Framework 2014 – involved consultation with all major pharmacy and medical organisations and District Health Boards as funders of pharmacy service.
- Vision 2020 – Pharmacists and Doctors Working Together: Vision statement to offer a strategic direction for the pharmacy and medical professions to work together in an integrated and collaborative health practice environment to significantly improve patient care and health outcomes.
- NZ government policy: Policy direction to optimise the use of medicines and the specific role of pharmacists in this.
- Medicines NZ Strategy supported by Actioning Medicines New Zealand Policy documents.
- Confidence & Supply Agreement with United Future Party – the implementation of the National Medicines Strategy will continue, including the enhanced role of pharmacists in medicines management and primary care (Opening of Parliament 2014 - Speech from the Throne which laid out the key objectives for the new government term.)

Tools, frameworks, support mechanisms

NZ has mainly developed their own resources:

- Pharmacist Services Framework 2014¹ - This framework comprehensively defines pharmacist services that are available for primary care and/or secondary care sector use. New service areas in the framework are in addition to base mandatory pharmacy services and designed to provide national consistency for users of pharmacist extended services. Health practitioner competence requirements dictate that all pharmacist services must be provided in line with appropriate standards as defined by the Pharmacy Council of New Zealand.
- Advanced Trainee Fellowship (ATF) Scheme² - Financial assistance to help health professionals undertake advanced training, a specialist qualification or study overseas in a priority speciality area (Ministry of Health).
- NZ Hospital Pharmacists' Association (<http://www.nzhpa.org.nz>) - established a Workforce Development Working Group to develop a career progression pathway including suggested qualifications, knowledge, skills and behaviours that are expected at each level of practice. Competency frameworks have been proposed drawing on the General Level Framework (CoDEG, UK); shpaclinCAT (SHPA, Australia).

Alignment with national strategies for healthcare services and delivery

The current government policy includes an intentional move by government funding agencies away from funding medicine supply to funding cognitive, collaborative and advanced pharmacist services. This has initially involved implementation of the Long Term Conditions Service, which is designed to support patients with identified medicine adherence issues to become self-managing through the provision of a pharmacist medicines management service.

This provides the pathway outlined by the NZ National Pharmacist Services Framework 2014 to implement the government's Medicines NZ Strategy outlined in 'Actioning Medicines NZ 2010' (currently being updated through the 'Implementing Medicines NZ 2015-2020' Policy³), in providing funding and support for pharmacist's role in opportunistic and scheduled monitoring and screening, pharmacist prescribing and the delivery of Comprehensive Medicine Management Services. This includes pharmacists managing optimal medicine use, medicine therapy assessment and providing health and medicine education.

The 2020 Vision Statement developed by the Pharmaceutical Society of NZ and the NZ Medical Association offers strategic direction for six vision areas underpinned by five-year objectives from each profession. The six vision areas are:

1. The Patient's Healthcare Journey
2. Health Professional Roles
3. A Shared Working Environment
4. Services
5. Professional Competence and Ethics
6. Payment Arrangements for Services

The NZ Maori Health Strategy for the pharmacy profession provides a pathway for pharmacists to provide high quality, innovative services to improve Maori well-being, by enhancing patient care and public health.

Requirements for CPD/CE

There are no specific annual CPD requirements set as part of the on-going accreditation for Medicines Use Review (MUR), Medicines Therapy Assessment (MTA) and prescribing pharmacists.

The specific requirements for CPD/CE for pharmacists offering Medicines Management Services (MUR, MTA) changed with the introduction of the revised Competence Standards for the Pharmacy Profession⁴ in January 2015. The new Standards have a focus on professional integrity and quality improvement, and therefore carry the expectation that the pharmacist will:

- proactively review their own performance; and
- actively participate in personal professional development in the context of their own practice as well as ensuring that the Medicines Management Service being offered will also undergo a continuous quality improvement process.

Prescribing Pharmacists

The Standards and Guidelines for Pharmacist Prescribers require pharmacist prescribers to “*actively participate in the review and development of their prescribing practice, and in the critical appraisal of information to improve patient care*”.⁵ In particular to:

- Participate in CPD to maintain quality of prescribing practice.
- Participate in quality improvement activities to develop and improve prescribing practice.
- Access, evaluate and apply information to improve prescribing practice.

Supporting regulation

Pharmacist Prescribing — Medicines Act and Misuse of Drugs Act amended to allow this activity.

Reclassification of medicines by the Medicines Classification Committee of Medsafe (NZ Medicines and Medical Devices Safety Authority) from ‘Prescription Only’ to a defined exemption from prescription status or Pharmacist-Only Medicine status to enable vaccination and pharmacist supply of medicines that require an accreditation or credentialing process to supply without prescription e.g. emergency hormonal contraception, trimethoprim, sildenafil.

Medicines NZ — Government Policy to ensure progression of Pharmacist Services away from solely supply services.

Professional recognition

Any professional recognition for advanced practice or specialisation usually relates to titles e.g. ‘Palliative Care Pharmacist’ or ‘Pharmacist Vaccinator’. This may or may not attract enhanced remuneration – depending on the employer. Credentialed services that are recognised in NZ include:

- Vaccination that requires recertification every two years [the vaccination accreditation training and two yearly reaccreditation is managed by IMAC (Immune Advisory Centre) <http://www.immune.org.nz/education-and-training>].
- Pharmacist Prescribers and MTA pharmacists who have a pre-requisite for a specific PG qualification, but no further PG qualifications are required after accreditation.
- Community Pharmacy Anticoagulation Services (CPAMS) pharmacists who are required to be reaccredited every two years.
- Supply of emergency contraception, trimethoprim and sildenafil without prescription following specified training and accreditation.

Pharmacists are funded for some specialised services e.g. MTA but there is no financial incentive to carry out these roles.

Ongoing progress

This has been an intentional on-going activity since 2004, with the publication of the Ten Year Vision for Pharmacists (2004–14), supported by government policy in Medicines NZ (2007) and Actioning Medicines NZ (2010). This has been reviewed and extended in Implementing Medicines NZ (2015–2020).

The Pharmaceutical Society of NZ is managing the implementation of the NZ National Framework of Pharmacist Services, designed to support initiatives to realise the potential of the pharmacist workforce and address the barriers to the delivery of innovative pharmacy and pharmacist services.

The provision of Community Pharmacy Anticoagulation Services has funded pharmacists for the provision of an advanced service and the success of this initiative is opening further opportunities for additional services.

The Pharmaceutical Society, on behalf of Health Workforce NZ, is undertaking a project to investigate the viability of introducing pharmacy accuracy checking technicians into the NZ pharmacy workforce. This project (PACT Project) is to provide evidence to determine whether the presence of an accuracy checking technician will enable a pharmacist to free up time to engage in, or expand on, the provision of patient-centred services without compromising public safety, or the accurate dispensing of medicines.

Lessons learned

Pharmacists are willing to undergo training for advanced and extended roles but much less willing to step out of their comfort zone. They find it difficult to manage a culture change, and many are still stuck in the 'dispense and supply' mode.

This was demonstrated with the initial provision of Medicine Use Review Services (in 2006) when hundreds of pharmacists were trained (often at their own expense) but did not follow through to take up contracts and deliver the service. This resulted in many contracts being withdrawn. As a generalisation, pharmacist are uncomfortable with marketing themselves, and there is also a significant barrier with doctors being concerned about pharmacists' 'taking over' some of their previously exclusive roles.

Pharmacists also find it difficult to produce and put proposals to funders and managers.

This is gradually changing and there has been a marked increase in the uptake of pharmacists becoming accredited to supply trimethoprim, sildenafil, vaccinations and Community Pharmacy Anticoagulant Services (CPAMS).

CPAMS has been a real success story with pharmacists consistently producing improved results for patients and this has led to a building of confidence and a willingness to provide further advanced services by pharmacists and a willingness to accept them by doctors. This service is a much admired model of integrated primary care.

Any advanced services need to be tied to financial benefits for the provider and this is not currently happening in NZ. The challenge is knowing that there is future proofed funding available for delivering these services and ensuring that the services remain viable. This will facilitate and encourage change management within pharmacy.

Key stakeholders

Professional organisations — Pharmaceutical Society of NZ and the NZ Hospital Pharmacist Association — have been the two main driving forces for development and recognition of advanced practice. These two organisations have developed frameworks and worked to lobby government organisations for changes to enable the necessary policy and regulatory changes required for advanced practice and service delivery. The NZ Pharmacy Council (the regulatory authority for pharmacy in NZ) developed the competence and registration requirements for the Pharmacist Prescriber Scope of Practice, which required legislative change.

Health Workforce NZ (a division of the Ministry of Health) is charged with developing the health workforce. It collaborates with educational bodies and employers to ensure that workforce planning and postgraduate training aligns with the needs of current and future service delivery.

Health Workforce also provides government funding for innovation through demonstration projects and pilots e.g. CPAMS.

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Philippines: Enhancement of professional competence, supported by mandatory CPD

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Summary

- The Philippine Senate recently approved a bill, aimed to regulate the practice, integrate the profession, and enhance professional competence through mandatory continuing development and research.
- Currently the Philippines Professional Regulation Commission (PRC) Board of Pharmacy is responsible for registration and licensing of pharmacists but is not yet involved in the ‘licensing’ of pharmacy specialists.
- The Philippines has no advanced Pharmacy Practice Framework is currently revising from another country and adapting it according to the country’s needs.
- The Philippine Pharmacists Association (PPHA), in conjunction with the American College of Clinical Pharmacy, is currently offering a series of pharmacotherapeutic workshops to pharmacists who wish to pursue Board of Pharmaceutical Specialties certification in the USA.

Tools, frameworks, support mechanisms

The Philippines has no advanced Pharmacy Practice Framework but is developing one by revising a currently available framework from another country and adapting it according to the country’s needs.

The PPHA has been very much involved in issues concerning the pharmacy profession. It has established local and international partners and linkages with various government and non-government organisations as well as other professional associations.

Alignment with national strategies for healthcare services and delivery

Pharmacy education in the Philippines is guided by the Commission on Higher Education (CHED) Memorandum Order CMO 3 (<http://www.ched.gov.ph/wp-content/uploads/2013/07/CMO-No.03-s2006.pdf>).

The CMO ensures that pharmacy education in the country meets the health needs of the people through quality health services and keeping relevant with the demands of global competitiveness.

Requirements for CPD/CE

The Philippine Senate recently approved a bill that aims to regulate the practice of pharmacy, integrate the pharmacy profession, and enhance professional competence through mandatory continuing development and research (information available at: http://www.senate.gov.ph/lis/bill_res.aspx?congress=16&q=SBN-2436 | http://www.congress.gov.ph/download/journals_16/j58_2RSS.pdf)

The current law requires all registered pharmacists to attend 10 Continuing Professional Development (CPD) units every year.

Supporting regulation

The Philippine Commission on Higher Education (CHED) is responsible for an on-going paradigm shift to competency based learning standards

The Philippine Professional Regulations Commission (PRC) ensures the implementation of the Philippine Qualifications Framework (PQF), which is the basic framework used for all regulated professions under PRC. The PQF is one of four convergent programs designed to address jobs and skills mismatch.

Ongoing progress

The following are initiatives to ensure development and professional recognition of advanced practice and specialisation:

1. **PDI:** The Pharmacy DOTS Initiative (PDI) aims to enhance the capability of Filipino pharmacists in the control of tuberculosis.
2. **Clinical Pharmacy summit:** The PPhA Clinical Pharmacy Program is in partnership with the American College of Clinical Pharmacy. The program is a series of learning modules to develop the clinical competency of Filipino pharmacy practitioners in the country towards obtaining an international specialty board certification in pharmacotherapeutics.
3. **PhilPSP:** Philippine Practice Standards for Pharmacists (PhilPSP) aims to build capacity among pharmacists and support workforce that will enable Filipino pharmacists to align with global standards and upgrade the level of practice.
4. **TESDA Pharmacy Services National Certificate (NC III):** In view of the need to strengthen the program of Pharmacy Services National Certificate (NC) II established last 2008, this was revised and justified to be elevated to NC III in 2014. This initiative was in partnership with Technical Education and Skills Development Authority (TESDA) and the PPhA.
5. **Philippine Pharmacy Act of 2014:** The State recognises the vital role of pharmacists in the delivery of quality health care services through the provision of safe, effective, and quality pharmaceutical products, pharmaceutical care, drug information, patient medication counselling, and health promotion. The pharmacists' professional services shall, therefore, be promoted as an indispensable component of the total healthcare system to ensure the physical well-being of Filipinos.

Key stakeholders

The Philippines PRC (Professional Regulation Commission) Board of Pharmacy does registration and licensing of pharmacists who has finished their Baccalaureate (BS Pharmacy and its equivalent) degree.

The Philippine Pharmacists Association, Inc. (PPhA) is the only Professional Regulation Commission (PRC) — accredited, integrated national organisation of licensed Filipino pharmacists. PPhA has been very much involved in issues concerning the pharmacy profession. It has established local and international partners and linkages with various government and non-government organisations as well as other professional associations.

PACOP (Philippine Association of Colleges of Pharmacy) is composed of institutional members or colleges or universities all over the country that offer graduate educational programmes with specialisations in areas of practice, such as hospital pharmacy, pharmaceutical sciences, industrial pharmacy, and community practice.

Portugal: Four recognised specialties

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Summary

- The Portuguese Pharmaceutical Society (PPS), the regulator of the profession has four titles of specialised pharmacists:
 - Pharmacist specialised in Clinical Analysis;
 - Pharmacist specialised in Pharmaceutical Industry;
 - Pharmacist specialised in Hospital Pharmacy;
 - Pharmacist specialised in Regulatory Affairs.
- In order to recognise the specialisations, the PPS has one evaluation period per year in each area of specialisation. The evaluation period consists of exams, and/or internships and/or presentation of a work related thesis.
- The PPS is developing a competency-based model to recognise these four areas.
- A pharmacist can only be a candidate for the evaluation period after having at least five years of experience in the subject/area/field.
- In 2014, 86% of pharmacists in practice in Portugal were non-specialists. Of the 14% who were specialists:
 - 793 were Specialists in Clinical Analysis;
 - 247 were Specialists in Pharmaceutical Industry;
 - 617 were Specialists in Hospital Pharmacy;
 - 118 were Specialists in Regulatory Affairs.

Tools, frameworks, support mechanisms

The Portuguese Pharmaceutical Society gives general support and help to candidates. The PPS is also available for contact and to answer any doubts or information requests by candidates throughout the year.

More specifically the PPS also promotes support on the following:

For Clinical Analysis Specialisation candidates:

- Candidates should choose a laboratory or laboratories able to provide them with the practice according to the internship programme/syllabus (handbook). The council of the Clinical Analysis Board (chosen and appointed by the PPS) will validate the proposal according to the suitability of the laboratory(ies) chosen for internship.
- Provision of bibliographic references to help candidates to prepare themselves for the exams (tools).

For Hospital Pharmacy Specialisation candidates:

- Provision of bibliographic references to help candidates to prepare themselves for the exam (tools).

Under development there is a Competency based model with a framework that will fit the existing requisites of the specialisation.

Alignment with national strategies for healthcare services and delivery

Strategy for the future of the health workforce is still under development. Portugal is one of the countries in the Joint Action for Health Workforce Planning and Forecasting through the Central Administration for the Health System.

Particularly regarding pharmacists specialised in hospital pharmacy there is under development the alignment of the specialisation awarded by the PPS title and the public sector career in hospital pharmacy.

Requirements for CPD/CE

It is not compulsory for specialist pharmacists to continue their professional development and education related to their specialty area. There are no specific requirements relating to postgraduate education.

The completion of the Specialisation Programme grants the pharmacist 10 CPD credit points (out of the 15 needing to be completed in each five year CPD cycle).

Supporting regulation

The Specialty Boards of the PPS have regulations for the titles of:

- Clinical Analysis Specialist
- Pharmaceutical Industry Specialist
- Hospital Pharmacy Specialist
- Regulatory Affairs Specialist

Professional recognition

The specialist title is written on the PPS professional card and detailed on the PPS pharmacists' database.

Examples of professional recognition include:

- **Pharmacist specialised in Clinical Analysis** – comply with legal proceedings that grant them access to the function of Technical Director of Medical Biology laboratories.
- **Pharmacist specialised in Pharmaceutical Industry** – comply with legal proceedings that grant them access to be Technical Director of a pharmaceutical industry with market introduction authorisation for medicines and to be a Qualified Person.
- **“Area of Expert professional practice** – Phase II Diabetes disease management service”:

Between April 2008 and June 2010 the 3rd Agreement on Diabetes Programme was in place between the Ministry of Health, PPS, National Association of Pharmacies, and Association of Pharmacies from Portugal. This Disease-State Management service was directed to patients who were medicated for diabetes and who were not meeting the established therapeutic objectives.

It consisted of the follow-up of diabetic patients in programmed visits to the pharmacy (SOAP methodology), between doctors' appointments, with the aim to detect, prevent and resolve Drug Related Problems (DRPs) through an intervention at the patient level (information, adherence, healthy lifestyle advice) and/or doctor referral, followed by a follow-up of the intervention's results.

It was delivered only by certified pharmacists who had completed compulsory courses on DRPs and pharmaceutical intervention, patient and doctor communication, merchandising and marketing of services, health checks and diabetes. Certified pharmacists were paid 15 €/patient/month, 75% of which was reimbursed by the National Health System, and 25% paid by the patient directly.

- Certification of **competencies on vaccination and medicines administration**:

In 2007 new Portuguese legislation was passed allowing pharmacists to expand their services into a number of areas, such as immunization and medicines administration included coverage of vaccines outside National Vaccination Scheme. A major training drive was launched in 2008 leading to the first nationwide pharmacy-based flu immunisation campaign during the 2008/2009 flu season.

In 2013 the PPS published guidelines on Immunization Services certification:

- Guidelines establishing the minimum requirements for accreditation of initial training and also for recertification training.
- Certification to provide the service include:
 - Complete initial training;
 - Complete recertification training every 5 years;
 - Evidence of continued activity.

The National Association of Pharmacies training model was one of the first to be implemented across Portugal with 1,914 pharmacists and 1,273 pharmacies completed the training (48% of Portuguese pharmacies) in 2014, resulting in a 98% patient satisfaction.

Ongoing progress

A competence-based model is under development for the specialisations that already exist in the PPS. The framework in development will need to fit the specific needs of the existing (practicing) professionals.

Further proceedings are planned as follows:

- Develop a competency framework, template and handbook for each specialisation;
- Pilot the framework in one of the Specialisation Programmes;
- Extend the experience to other Specialisations.

Lessons learned

The main challenges faced so far by the Specialisation model:

- Human resources are allocated exclusively to the general management of the Specialisations – one pharmacist and one administrative assistant;
- There is only one exam period per year/per specialisation;
- Exam jurors are nominated by the National Board of the PPS after recommendation by specialists assigned by each Specialisation Board Council. The jurors work pro bono.

Special challenges of the Specialisation in Hospital Pharmacy and Clinical Analysis under work in a hospital setting of the public sector (under the Ministry of Health):

- At the moment PPS is facing the challenge of having a unique national hospital pharmacist career, together with the Health Ministry and the PPS.
- Specialisations of pharmaceutical professions that work in a hospital setting can be of hospital pharmacy (if based in the hospital pharmacy) and of clinical analysis (if based in the hospital medical biology laboratory).
- Careers in the public sector unfortunately do not follow a progression compatible with the PPS specialisation. Currently, career progression for pharmacists within the hospital sector follows a general system for public servants in the health sector.
- Working towards an alignment between both of these specialisations in the PPS and also career progression that is particular to pharmacists.

Key stakeholders

The National Board of PPS is the competent authority for the pharmaceutical specialisations.

The National Board provides education and training through the Councils of each Specialist Board, who organise congresses, symposia and meetings targeting specialists, and through the National Council for Quality, with training events on particular quality practices in each professional setting.

The Councils of each Specialist Board also produce handbooks and guides for good practice.

- **Hospital Pharmacy** — Handbook on Cytotoxic Handling; Handbook on Wound Management Material; Handbook for Medicinal Gases; Guide on Good Hospital Pharmacy Practices (in production).
 - **Clinical Analysis** — Norms for the Medical Biology Laboratory (updated 2015).
 - **Pharmaceutical Industry** — Adaptation and dissemination of the European GMP and GDP.
 - **Regulatory Affairs** — Good Regulatory Practices. The Regional Branches of the PPS also provide general education and training opportunities to pharmacists.
- The Regional Branches of the PPS also provide general education and training opportunities to pharmacists.

Singapore: Accreditation and registration of specialist pharmacists available

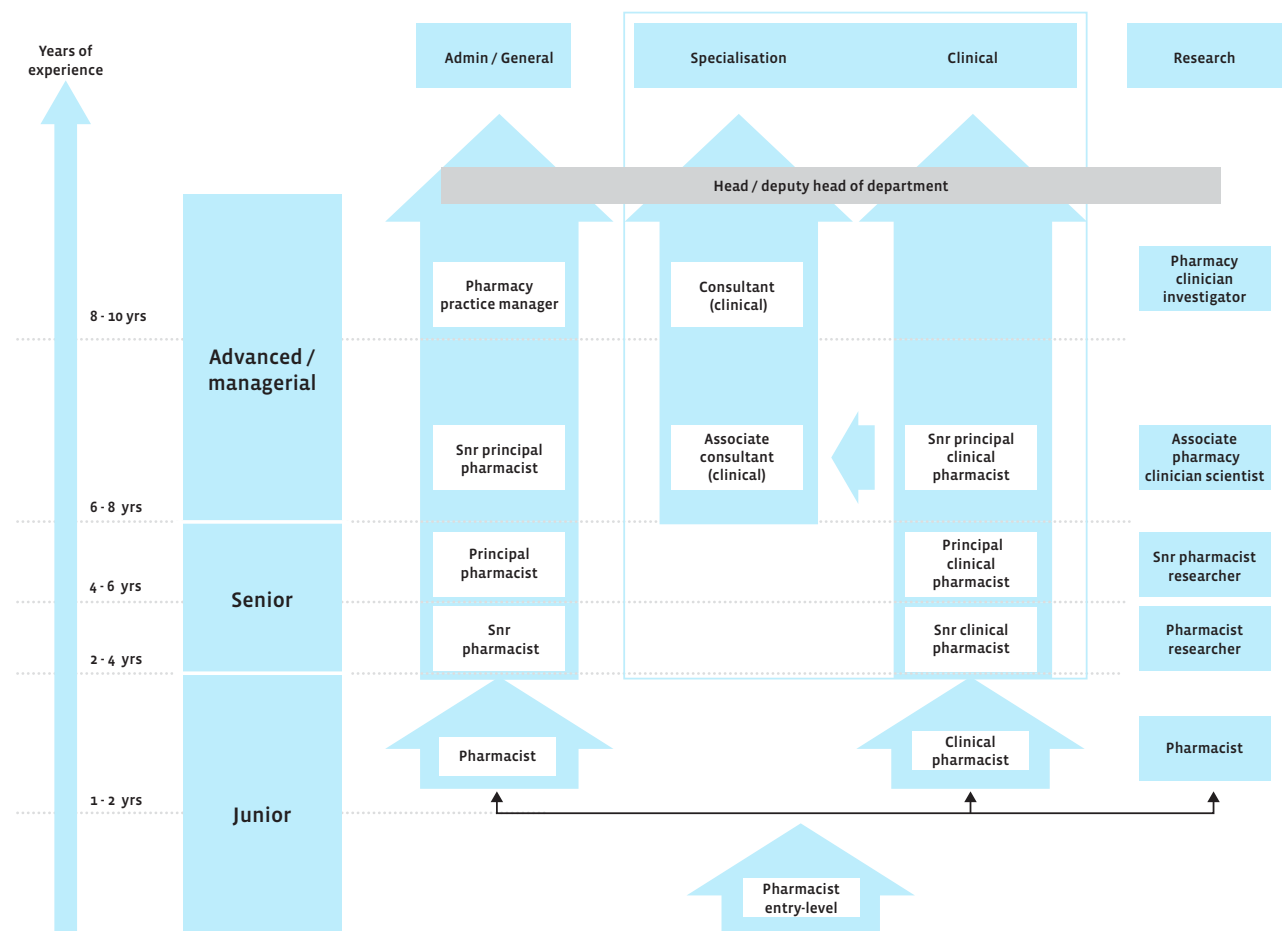
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Summary

A review of the pharmacy career structure in the public healthcare sector (see figure 1) was conducted with a new career pathway framework being introduced in 2009. Under the new career framework, pharmacists in the public healthcare sector can develop their career in either the professional, clinical or research tracks, and progress to become advanced practitioners in each of these tracks. Advanced practitioners in the clinical track may seek accreditation and registration as specialists.

Figure 1: Pharmacy career structure in the public healthcare sector.





The Pharmacists Registration Act 2007 made provisions for the accreditation and registration of specialist pharmacists. These include the establishment of the (Pharmacy) Specialists Accreditation Board (PSAB) whose functions are to define the specialties in the pharmacy practice, and to certify those who have met the requisites of both qualifications and experience for registration as specialists.

The Ministry of Health has set aside funding to encourage more pharmacists to pursue specialist training. From 2008 to 2012, funding was provided for 35 scholarships in specialist residency training and to support another 43 pharmacists in Doctorate and Masters programmes. Most of the returned residency scholars have been accredited and registered as specialist pharmacists and have helped to establish the local PGY1 and PGY2 residency programmes.

Tools, frameworks and support mechanisms

Development of specialist training framework: The American Society of Health-System Pharmacy (ASHP) Required and Elective Educational Outcomes, Goals, Objectives, and Instructional Objectives for Postgraduate Year One (PGY1/2) Pharmacy Residency Programs have been adapted and serve as reference standards for the curriculum of the National PGY1/2 Pharmacy Residency programmes. The ASHP PGY1/2 Residency Accreditation Standards have been adapted to serve as reference standards for the Pharmacy Specialist Accreditation Board (PSAB) to accredit the local residency programmes.

Recognition of specialisation: The local pharmacy specialist accreditation framework was developed with reference to the existing medical and dental specialisation framework. Besides completion of the National PGY1/2 Pharmacy Residency programmes, the US Board of Pharmacy Specialists, Specialty Board Certification or Added Qualification is also a pre-requisite for accreditation. The figure 2 below depicts the current specialist training framework.

Figure 2: Current specialist training framework.

N° of years post-graduation	1	2	3	4	5	6	7	8	9
Programme	Pre-reg training	Work experience in patient care area		Postgraduate education		PGY1 residency training in broad-based pharmacotherapy	PGY2 residency training in specialty area	Post-residency specialist practice experience	Specialist accreditation & registration if all criteria are met
Qualification/Certification	↓ SPC practising certificate			↓ Pharm D		↓ US BCPS certification	↓ US specialty certification		↓ PSAB specialists accreditation SPC specialist practising certificate

(SPC: Singapore Pharmacy Council)

Other than the PSAB, various other committees were formed to provide governance of the Pharmacy Specialist framework.

- Residency Policy and Oversight Committee (RPOC):
 - Chaired by the Ministry Of Health (MOH) Chief Pharmacist with membership comprising all six Residency Programme Directors (RPDs), the Office of Residency Training (ORT) Faculty Advisor and an MOH ex-officio.
 - Roles are to guide RPDs in the development, implementation and refinement of the programmes, including the application process and selection criteria of residents, and to monitor and review the outcomes and deliverables of the respective programmes.
- Pharmacy Residency Accreditation Committee (PRAC):
 - Comprised of senior pharmacy practitioners well-versed in pharmacy practice, education and training from the public healthcare institutions;
 - Role to accredit the local residency training programmes.
- Pharmacy Residency Selection Committee (PRSC):
 - Comprised of senior members of the pharmacy and medical community in the public sector institutions
 - Roles are to evaluate applications from the various healthcare clusters, interview applicants and submit its recommendations to MOH for approval.
- Office of Residency Training ORT:
 - Role to provide administrative, secretariat and technical support to RPOC, PRSC, and residency faculty members.

Alignment with national strategies for healthcare services and delivery

Building Capacity and Capability – The Ministry of Health recognised the need for more specialist pharmacists to provide specialised care for complex cases in tertiary hospitals. The development and implementation of government-funded National Pharmacy Residency Programmes will help produce sufficient number of specialist pharmacists to meet the future needs of Singaporeans and the health care system.

Requirements for CPD/CE

Specialist pharmacists will need to meet continuing development requirements by fulfilling the training hours required for specialty-specific CE programmes.

They must fulfil at least 15 of the total of 50 continuing professional education points in their specialty areas within the qualifying period of two years to be eligible for renewal of their practicing certificates.

With the exception of the grandfathered specialists, all applicants for specialist accreditation will have to be a holder of the following degree, or its equivalent: Master in Clinical Pharmacy or Doctor of Pharmacy from institutions of higher learning that offers such a degree that is recognised by the SPC.

Supporting regulation

The Pharmacists Registration Act 2007 provides for the setting up of a separate register for specialist pharmacists and the registration of such specialists. The Act also makes provision for the establishment of a Pharmacy Specialists Accreditation Board (PSAB) to define the pharmacy specialties and to determine the requirements for specialist registration. Oncology, cardiology, infectious disease, psychiatry and geriatrics are the SPC recognised pharmacy specialties

The Register of Specialists is the record of pharmacists who are recognised as specialists by virtue of their qualifications, specialised knowledge and experience. Accredited specialists must have met the necessary criteria stipulated by the PSAB.

Professional recognition

A specialist certificate, in respect of that specialised branch of pharmacy, would be issued by the SPC. The title of a 'specialist pharmacist' would also be conferred. Only pharmacists who are registered as specialists in the Register of Specialists are allowed to use the title 'Specialist'.

Specialist Pharmacists serve as an important member of the multidisciplinary care team and provide specialty-specific inpatient and or ambulatory care services to contribute to improved patient outcomes by optimising pharmaceutical care.

Ongoing progress

The PSAB is constantly reviewing the need to recognise other new specialties in tandem with the healthcare needs of Singaporean patients, and to set up the related specialist training and accreditation framework in the new specialties.



Lessons learned

Focused and continued stakeholders engagement and communication, leadership support and sustainable resources are needed to transform the pharmacy workforce and to integrate basic, advanced and pharmacy specialist practice as an essential part of the model of care for Singapore .

What went well:


- Professional engagement and support from pharmacy leadership;
- Ministry of Health's funding and continued support;
- Support and encouragement from public hospital doctors.

Challenges:

- Shifting practice landscape leading to changing model of care continues to challenge us to better define the scope of specialist practice;
- Forging closer collaboration with physicians in delivering patient-centred pharmaceutical care as a cohesive team.

Key stakeholders

Ministry of Health (regulator); Pharmacy department heads of public hospitals; and Doctors in public hospitals.



South Africa: Development of scopes of practice and required qualifications for specialist pharmacists and pharmacist prescribers

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Summary

- The statutory Pharmacy Council has developed draft scopes of practice and qualifications for four categories of specialist pharmacists (Radiopharmacist, Pharmacokineticist, Clinical Pharmacist and Public Health Pharmacy & Management). Finalisation and publication as regulations is anticipated by the end 2015.
- The National Department of Health instituted an Occupational Specific Dispensation for scarce healthcare skills. This provides recognition and remuneration for specialisation as well as a number of career paths for pharmacists in the public sector.
- Community pharmacists may obtain a supplementary qualification in Primary Care Drug Therapy. Authorised Pharmacist Prescriber regulations, which will permit pharmacists to diagnose and treat conditions in compliance with the Primary Health Care Essential Medicines List and Standard Treatment Guidelines, are awaiting approval and will support government strategies to improve health care across the country.

Tools, frameworks and support mechanisms

The development of scopes of practice and qualifications for specialist pharmacists and pharmacist prescribers have been developed through consultation processes and benchmarked with similar internationally recognised scopes of practice and qualifications.

Frameworks used:

1. Council on Higher Education (CHE) - National Qualifications Framework (NQF) – Masters level qualification (NQF9) and Postgraduate Diploma (NQF8).
2. Legislation – Education, Health and Pharmacy Acts.
3. Other specific regulations mentioned in case study.

These Action Ideas are being followed up by the blueprint for pharmacy Steering Committee.

Alignment with national strategies for healthcare services and delivery

South African national strategies include roll out of universal health care through the implementation of National Health Insurance (NHI), focus on the primary health care level through the Re-Engineering Primary Health Care (PHC) Strategy and the National Development Plan (NDP) 2013.

Primary Care Drug Therapy Pharmacists and Authorised Pharmacist Prescribers are aligned to Re-Engineering PHC approach and improvements in access to health care services. Clinical Pharmacy and Public Health Pharmacy & Management Pharmacists align to new posts recently created (Clinical pharmacist and Policy pharmacist, respectively) in public sector (government services) through benchmarking processes resulting in Occupational Specific Dispensation (OSD) intended to improve quality of pharmaceutical services in public sector.

Requirements for CPD/CE

CPD is required for all pharmacists in South Africa and CPD relevant to advanced practice and specialisation would be required for pharmacists registered as advanced practitioners and specialists. Although postgraduate education in these fields is largely in the interests of professional development, and can therefore be used to meet CPD requirements, the only specific requirements are those dictated by the gazetted qualification. These are required for registration as a specialist/ advanced practitioner but not for CPD.

Supporting regulation

Pharmacists (additional services)

Rules relating to the services for which a pharmacist may levy a fee and guidelines for levying such a fee or fees. Board Notice 33 of 2012. Pretoria: Government Gazette No. 35095, 2 March 2012. URL: <http://www.mm3admin.co.za/documents/docmanager/0C43CA52-121E-4F58-B8F6-81F656F2FD17/00025238.pdf>

Primary Care Drug Therapy Pharmacist

Draft Regulations relating to supplementary training or refresher courses to be undergone or taken by persons who are registered in terms of the Pharmacy Act, 1974, and the provisions and control over such training or courses. Government Notice No. R.1138, 4 August 1995. URL: <http://www.mm3admin.co.za/documents/docmanager/0C43CA52-121E-4F58-B8F6-81F656F2FD17/00010798.pdf>

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Draft Scopes of practice and qualifications for specialist pharmacists. Board Notice 152 of 2014. Pretoria: Government Gazette 38327, 12 December 2014. URL: www.gov.za/sites/www.gov.za/files/38327_bn152.pdf

Professional recognition

Specialisations

- In public sector (government): through creation of some new posts for clinical pharmacists and policy pharmacists, at a fairly senior level.
- In private hospitals: through creation of some clinical pharmacist posts, some of which may be remunerated at an increased salary scale. Pharmacists receive a financial recognition for their advanced practice/specialisation.

Pharmacist prescribers (Primary Care Drug Therapy pharmacists and Authorised Prescribers)

Pharmacists can charge fees for services.

Other services provided by pharmacists (screening, immunisations, emergency contraception etc.)

Pharmacists can charge fees for services.

Ongoing progress

Advanced Practice:

Authorised Pharmacist Prescribers: Regulations are awaiting signature by Minister of Health.

Specialisations:

Scopes of Practice and qualifications for Radiopharmacist and Pharmacokineticist (existing specialist pharmacists categories) and Clinical Pharmacist and Public Health Pharmacy & Management (new categories) expected to be approved by end 2015.

Providers of new Masters qualifications, which are a requirement for registration as a specialist pharmacist, are expected to be accredited in 2016.

Lessons learned

Good support from Minister of Health (government) and private health sector for advanced practice and specialisations.

Challenges: Some concerns regarding scope of advanced practice, and areas of specialisation have been expressed by some professional boards e.g. Health Professions Council of South Africa (includes doctors) and South African Nursing Council. However, the South African Pharmacy Council (SAPC) has developed good relationships between boards and memorandum of understanding (MOU) is in place to facilitate engagement between boards on matters of mutual concern.

Lessons: Providers of new qualifications will only be accredited by SAPC after the new regulations for the qualification are published.

Key stakeholders

Several role players are promoting the establishment of advanced practice and specialisation including: South African Pharmacy Council (SAPC) (regulator) with support of the Department of Health, Pharmaceutical Society of South Africa and its sectors (the Academy of Pharmaceutical Science, SA Association of Hospital and Institutional Pharmacists, SA Association of Pharmacists in Industry, and SA Association of Community Pharmacists), South African Society of Clinical Pharmacy (SASOCP), Independent Community Pharmacy Association (professional organisations) Schools of Pharmacy & Public Health (academic institutions), and individual practitioners.

The SAPC as the regulator, plays a pivotal role in ensuring that the qualification and scopes of practice of the advanced practice and specialisations are approved by the Minister of Health.

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Spain: Specialisation is largely governed by regulations covering all healthcare professionals

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Summary

- The specialised training of healthcare professionals is intended to provide them with the knowledge, techniques, skills and aptitudes required for a given specialty. At the same time during this training, the professional gradually assumes the responsibilities associated with the practice of said specialty.
- The regulation of healthcare professions provides Spain's health system with the legal framework containing those instruments and resources making it possible to integrate healthcare professionals into healthcare services, facilitating the joint responsibility needed to achieve common goals, and improve the quality of the assistance given. This also ensures that all professionals have the skill levels needed to ensure citizens' right to proper healthcare.

Tools, frameworks, support mechanisms

Primarily the development of the legislation that is applicable in each case.

Alignment with national strategies for healthcare services and delivery

It is the Spanish government, at the request of the Ministries of Education and Health, and subsequent to a report from the National Healthcare System Human Resources Commission of the National Council on Health Sciences Specialties, and from the relevant professional organisation, that defines, deletes or changes the names of the titles for Specialists in Health Sciences.

The National Healthcare System Human Resources Commission, together with requests made by the regional governments, the healthcare system's need for specialists, and the available budget, sets the number of places to be filled through the annual entrance exams. This number is determined subsequent to a report from the National Council on Health Sciences Specialties and from the Ministry of Education.

Requirements for CPD/CE

In the specific case of the pharmaceutical profession, there are no CPD/CE requirements, though practicing professionals constantly renew, recycle and obtain new knowledge so as to ensure that their professional practice is updated to existing needs.

Supporting regulation

As mentioned earlier, primarily:

- Law 44/2003 of 21 November, which defines the healthcare professions [2003].
- Royal Decree 1393/2007 of 29 October, which defines the official university degrees [2007].
- Royal Decree 183/2008 of 8 February, which determines and classifies specialties in the Health Sciences and expounds on certain aspects of the system for specialised healthcare training [2008].
- Royal Decree 639/2014 of 25 July, which regulates course subjects, re-specialisation and areas of specific practice, lays out the regulations applicable to the annual tests for admission into training programs and other aspects of the healthcare training system specialising in Health Sciences, and creates and modifies certain specialist titles [2014].

Professional recognition

The specialist title earned (official diploma and denomination) is used. In the case of a Doctorate or Masters, the title of Doctor in (...) and Master in (...) may be used, as applicable.

Lessons learned

A considerable amount of work has been carried out in this area, and the applicable regulations have been completed and improved over time. One aspect that needs further work is CPD, both for specialised and non-specialised professions.

Key stakeholders

Legislation with support from professional organisations.

Switzerland: pharmaSuisse responsible for programmes and titles of recognition and maintenance of federal titles

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Summary

- Two federal postgraduate titles (community pharmacy and hospital pharmacy).
- Postgraduate certificates for specialised competencies.
- Federal accreditation of the postgraduate education of all medical professions, including pharmacy.
- Revision of the Law for the Medical professions in favour of pharmacists and their evolving role providing new services according to the needs of the healthcare system and society.
- The professional association (pharmaSuisse) is responsible for all postgraduate education in pharmacy.

Tools, frameworks and support mechanisms

pharmaSuisse developed their own programmes, created the necessary infrastructure (external education providers and internal education providers) to make the necessary postgraduate and continuous education possible and then submitted the programs to get acknowledged by the federal government.

The federal Law was adapted after the postgraduate titles were acknowledged.

Alignment with national strategies for healthcare services and delivery

pharmaSuisse developed the courses and the postgraduate certificates, as well as the postgraduate titles, in accordance to the needs of society and the health care system.

Requirements for CPD/CE

Postgraduate education in Switzerland is not university linked. Some or all of the required postgraduate courses can be taught at university but only the professional association is responsible for delivering postgraduate titles and certificates. Postgraduate education has to be further education based on the university education. University, postgraduate and continuous education is defined in the federal Law for the Medical professions (c.f. art. 3: <https://www.admin.ch/opc/fr/classified-compilation/20040265/index.html>).

Every healthcare professional is required to further their education by the above law (art. 40).

Furthermore, every pharmacist holding a postgraduate title is required by the postgraduate education regulations to further their education by annually visiting four days of controlled continuous education, as well as a further six days of non-controlled professional reading. These four days of continuous education are controlled by the professional society, pharmaSuisse, using a specially developed educational platform.

Supporting regulation

Postgraduate programs in community pharmacy and hospital pharmacy are accredited by federal law every seven years. In addition to the accreditation of the programs, the responsible institution (pharmaSuisse) will be accredited in 2016 for the first time.

With the accreditation of the programmes in 2013, the federal government gave recommendations and compulsory amendments that needed to be done within a certain period of time (i.e. until the end of 2014 or 2015). The required amendments are controlled by the federal government.

Professional recognition

With the newly revised Law of the Medical Professions it will be compulsory also for a pharmacist-in-charge to have a postgraduate title in either community or hospital pharmacy – this is in accordance with medical doctors, dentists and chiropractors. The law applies to all pharmacists exercising their professional activity in a community or a hospital pharmacy.



Ongoing progress

As mentioned above, the newly revised Law for the medical professions was revised in favour of pharmacists and their changing role as healthcare professionals providing services as required by the evolving healthcare system and the needs of society.

Lessons learned

In 1994-1999 the postgraduate specialisation in community pharmacy consisted of two four-week courses over two years, organised by pharmaSuisse. In 2000, pharmaSuisse wanted to let the pharmacists organise their own schedules according to a set curriculum. Now, more than ten years later, and in preparation for the first federal accreditation, a set curriculum with an organised schedule is back in practice – a mix of three single course weeks and single variable courses. The curriculum has to be passed within two-five years.

The federal re-accreditation of the postgraduate curricula (2018-2020) and the accreditation of pharmaSuisse as the responsible organisation for the postgraduate titles in pharmacy (2016) will be a large workload but manageable as our accreditation in 2011-13 is a model for the re-accreditation of the medical professions. In 2016 pharmaSuisse will be accredited parallel to the professional societies of medical doctors, chiropractors and vets, so that the federal government has a comparison among the medical professions.

Key stakeholders

The professional organisation and the federal government.



USA | California: States differ in the recognition of specialty and advanced pharmacy practice

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Summary

- The diversity of regulatory agencies (e.g. – state boards of pharmacy) makes comparison of practices difficult.
- Advanced practice recognition is limited to certain states.
- Specialisation is primarily through the Board of Pharmaceutical Specialties.
- The concept of reimbursement for advanced practice services remains a challenge.

Alignment with national strategies for healthcare services and delivery

In California, it is envisioned that advanced practice pharmacists will be able to supplement the primary care workforce. Currently, about two-thirds of the counties in California lack sufficient primary care physicians. While it is not expected that advanced practice pharmacists will replace physicians, they may be able to provide care for some patients thus alleviating the burden on primary care physicians. For example, pharmacists might be able to manage medication-intensive conditions such as diabetes, freeing physicians to focus their energies on other medical needs.

Requirements for CPD/CE

In general, pharmacists with advanced practice designations have additional requirements for continuing education. In North Carolina, pharmacists (without any special designation) are required to accrue 15 hours of continuing education annually. Clinical pharmacist practitioners are required to accrue 35 hours of practice-specific continuing education annually. In California, pharmacists (without any special designation) are required to accrue 30 hours of continuing education every two years.

Advanced practice pharmacists are required to accrue an additional 10 hours of practice-specific continuing education every two years.

There are no requirements for university-linked education. State boards of pharmacies will accept continuing education accredited by the Accreditation Council for Pharmacy Education (ACPE), and some state boards will accept continuing education accredited by other bodies. For example, California will accept accredited Continuing Medical Education (education that would be accepted by the state medical board) and also California Accreditation for Pharmacy Education.

Supporting regulation

State regulations are cited above, but there is no similar regulation in place at a national level. National organisations have published perspectives on the need for advanced training and certification, and offer educational programmes for their members.

American College of Clinical Pharmacy - publication: Qualifications of Pharmacists Who Provide Direct Patient Care: Perspectives on the Need for Residency Training and Board Certification. *Pharmacotherapy* 2013; 33(8): 888–891. Available at: http://www.accp.com/docs/positions/commentaries/Commntry_BOR_DPC_phar1285.pdf

American Society of Health System Pharmacists - policy 0701: To support the position that by the year 2020, the completion of an ASHP-accredited postgraduate-year-one residency should be a requirement for all new college of pharmacy graduates who will be providing direct patient care. Available at: <http://www.ashp.org/DocLibrary/BestPractices/EducationPositions.aspx>

Professional recognition

Each state has its own laws and regulations regarding pharmacy practice. However, many states that have some recognition of advanced pharmacy practice recognise the certifications from the Board of Pharmaceutical Specialties (BPS).

Ongoing progress

In California – as with all states in the United States – pharmacists and the practice of pharmacy is regulated by our state regulatory body, the state Board of Pharmacy. The mission of the Board of Pharmacy is to protect and promote the health and safety of California residents by regulating pharmacists and pharmacy practice (http://www.pharmacy.ca.gov/about/mission_statement.shtml).

The board has convened a taskforce to evaluate the implementation of advanced practice pharmacists. The taskforce has met several times, starting in June 2014 and continuing through the present time. The time frame for implementation of advanced practice pharmacists is estimated to be in the latter half of 2015.

Lessons learned

In California, the legislation that created advanced practice pharmacists was introduced in 2013. The legislation served as a unifying voice for pharmacists throughout the state, especially members of the two state pharmacy organisations: 'California Pharmacists Association' and 'California Society of Health System'.

Current challenges include education of all pharmacists in the state – those who are not members of the state pharmacy organisations are less likely to be aware of the opportunity – and the pace of implementation as regulated by the California Board of Pharmacy. An additional challenge is the question of reimbursement. Although pharmacists in California are recognised as healthcare providers, there is no legislation, policy, or regulation that mandates any sort of compensation for advanced practice.

There are efforts at a national level to garner provider status for pharmacists – there are currently companion bills in the United States Senate and House of Representatives. These bills call for recognition and compensation of pharmacists for services not linked to a product (*i.e.* – dispensing). There is no mention of advanced practice pharmacy in these bills, however it is implied because the national legislation, if passed, would simply authorise and recognise what pharmacists do on a state-by-state basis (<http://www.pharmacistsprovidecare.com/facts>).

Key stakeholders

In California, the regulator is the current driver. The state pharmacy organisations – the California Pharmacists Association primarily and to some extent the California Society of Health System Pharmacists – are supporting the Board in its efforts.

USA | North Carolina: States differ in the recognition of specialty and advanced pharmacy practice

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Summary

- In the United States (US), the profession of pharmacy is pushing for the federal recognition of pharmacists as healthcare providers, which would enable payment for cognitive and clinical services, such as medication therapy management, in medically underserved communities.
- Most states allow pharmacists to initiate, modify, and continue medication regimens through collaborative drug therapy management (CDTM) protocols.¹
- In North Carolina, pharmacists with advanced training can become credentialed as a clinical pharmacist practitioner (CPP) allowing for an expanded level of care including prescriptive authority.
- As the scope of pharmacy practice evolves, more pharmacists are pursuing advanced training and board certification in a growing number of specialties

Tools, frameworks and support mechanisms

While pharmacists continue to strive for national recognition as healthcare providers, some states have passed legislation that has expanded the scope of practice for pharmacists within that state through collaborative drug therapy management (CDTM) protocols and have recognised pharmacists as healthcare providers.

As states continue to develop innovative advanced practice models, such as that of the clinical pharmacist practitioner (CPP) model in North Carolina, it is the hope of the profession that these state frameworks continue to provide support for federal recognition of pharmacists as healthcare providers along with other recognised professions such as nurse practitioners, dentists, optometrists, and psychologists among others.

Certification in defined areas of pharmacy practice has also pushed the case for recognition of pharmacists as providers. The Board of Pharmacy Specialties (BPS) is the organisation that certifies pharmacists in the areas of pharmacotherapy, ambulatory care, critical care, nuclear, oncology, paediatrics, nutrition support, and psychiatry. Over the past decade there has been significant growth in the number of board certified pharmacists and the number of specialties pharmacists can be certified in.

To assist with federal recognition, more than 25 national pharmacy organisations, companies, and key stakeholders united to establish the Patient Access to Pharmacists' Care Coalition (PAPCC) (<http://pharmacistscare.org/>) which aims to expand patient access to pharmacist services in medically underserved communities across the country.

A national grassroots advocacy campaign, Pharmacists Provide Care, has also been established which includes an informative website with several educational resources about provider status (www.pharmacistsprovidecare.com). On this website there is a user-friendly tool that allows supporters to identify and communicate with his or her elected official to urge them to support legislation that recognises pharmacists as providers. Supporters can also fill out a provider status commitment card to reaffirm their support for being an active participant in the campaign for provider status. As of this publication, the campaign has nearly 20,000 supporters.

Alignment with national strategies for healthcare services and delivery

The Patient Protection and Affordable Care Act (ACA) was signed into law by President Barack Obama in 2010 with the primary goals of improving quality, reducing costs, and expanding access to healthcare. As one of the most accessible and trusted healthcare professions, pharmacists have the opportunity to fulfil the goals of the ACA by providing patient care services to a larger population of people, especially those living in medically underserved or health professional shortage areas.

As chronic care, access to care, and the provider workforce become more important focus areas under the ACA, pharmacists are primed to fulfil a variety of needed roles as healthcare professionals that provide preventative and primary care patient services.² To help fulfil this role, certified pharmacy technicians can allow pharmacists to expand patient care services. The federal recognition of pharmacists as healthcare providers would further strengthen the goals of the ACA of providing high quality, cost-effective patient care services that improve patient and health system outcomes.

The Community Care of North Carolina (CCNC) is widely recognised for its innovative state-wide medical home and care management system³. Through a variety of community networks, pharmacists in collaboration with other healthcare providers are able to manage medication related needs and improve health outcomes, thereby strengthening the goals of the ACA. Most networks employ at least one pharmacist with advanced training as part of a collaborative care model.

Requirements for CPD/CE

Advanced practice models in certain states such as the CPP model in North Carolina require additional practice relevant continuing education (CE) hours (35 hours/year) compared to that which is required for traditional pharmacists (15 hours/year). The state of North Carolina allows for the submission of a continuing professional development (CPD) portfolio to count for licensure and recertification. This is the only state to date that allows it.

There is not a specific requirement that CE be associated with a university or part of an additional postgraduate training programme. However, there are a number of pathways one can pursue to obtain the CPP credentials or other specialisations, which could include postgraduate training (i.e. residency training) associated with a university.

Supporting regulation

The scope of pharmacy practice is regulated at the state level by state boards of pharmacy. Most state boards of pharmacy have language recognising CDTM, which allows pharmacists to initiate, modify and continue drug therapy under a protocol in collaboration with other providers for a specific patient or patient population. Although the scope of CDTM and other patient care services such as immunisations differ from state to state, these regulations allow pharmacists to further engage with other providers and patients in an advanced manner.

Professional recognition

Certain states in the US have designated titles for advanced practice pharmacists with prescriptive authority that have met additional training criteria to work alongside physicians through collaborative drug therapy management agreements. In New Mexico, these pharmacists are called Pharmacist clinicians while in Montana and North Carolina they are deemed clinical pharmacist practitioners. Clinical pharmacist practitioners will have “CPP” placed after their name as part of their credentials and similarly pharmacist clinicians will have “PhC”.

In 2013, California passed a bill recognising pharmacists as providers and established the advanced practice pharmacist (APP) designation for pharmacists who meet the additional training and certification criteria. Besides advanced practice models, pharmacists can be board certified in defined areas such as pharmacotherapy which allows them to place board certification credentials after their name (i.e. BCPS for Board Certified Pharmacotherapy Specialist). Both board certification and advanced practice credentials could lead to career advancement and professional growth.

While some pharmacists have these advanced designations, there is still the challenge for federal government insurers and other stakeholders to recognise these titles from a reimbursement perspective for the patient care services pharmacists provide.¹

Ongoing progress

The main push for provider status recognition is through the Pharmacists Provide Care Campaign and the Patient Access to Pharmacists’ Care Coalition. The priority behind these endeavours is to gain legislative support for and pass the Pharmacy and Medically Underserved Areas Enhancement Act, which will enable Medicare beneficiaries to access pharmacists’ services through the amendment of the United States Social Security Act.

Lessons learned

What has worked well is that states have recognised the value and importance of having pharmacists provide patient care services with 48 states having some form of collaborative practice between pharmacists and providers.⁴ Additionally, 37 states have recognised pharmacists as providers, which has further pushed the cause for federal recognition of pharmacists as providers.⁵ However, despite this progress and success, much has to be done regarding the regulatory framework to support provider status on both the state and federal level including reimbursement and payment models for pharmacist services.⁶ The recognition by states of pharmacists as providers reduces statutory barriers for payment for pharmacist patient care services, but it does not necessarily correlate with reimbursement for these services.⁷

Regarding advanced practice models such as the CPP in North Carolina, a survey¹ in 2011 indicated that the main challenges to implementing an advanced collaborative practice model included lack of acceptance by other providers and the inability to receive adequate reimbursement for patient care services. An additional challenge is there is a lack of standardisation regarding CDTM agreements and the scope of pharmacy practice they cover since these agreements are governed separately by each state.




Key stakeholders

In the US, professional pharmacy organisations are a driving force behind advancing the practice of pharmacy and the recognition of pharmacists in advanced roles and as providers. Numerous national pharmacy organisations have come together to push for recognition of pharmacists as healthcare providers under federal law in order to recognise the value of and reimburse for the services pharmacists provide to patients. In addition, the Patient Access to Pharmacists' Care Coalition has been established which is a multi-stakeholder, interdisciplinary initiative to expand patient access to pharmacist services in medically underserved areas of the country (<http://pharmacistscare.org/>).

State Boards of Pharmacy and State Pharmacy Associations are also a driving force in developing and supporting advanced practice models for pharmacists within a particular state.

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PART 5

OVERVIEW OF TERMINOLOGY AND NOMENCLATURE

Global agreement on terminology and definitions is an important early step necessary for shared understanding of issues around advancing practice and specialisation. As a key component of data gathering for this report, FIP member organisations, country level contacts from regulatory, professional and government agencies and universities, were approached to contribute a case study database describing aspects of advanced practice and specialisation.

A template was developed in collaboration with the FIP Collaborating Centre, University College London School of Pharmacy, Faculty of Pharmacy and Pharmaceutical Sciences at Monash University, and FIP Education Initiative. The template was validated by an expert working group, drawn from a cross-section of FIP sections and special-interest groups. Data was collected between January 2015 and May 2015.

Cases were edited and returned to original authors for approval. Details of individual cases are in Part 4 of this report.

The data collection template and report are available for download from www.fip.org/educationreports.

Collation of input from 18 case studies (covering 17 countries) indicates significant differences in our understanding and usage of common terms. For this report no attempt has been made to harmonise these definitions, or to suggest global definitions; however *FIPed* will continue to investigate how to contribute to improved common understanding of terminology in this area, and work towards a transnational understanding of specialisation and advanced practice.

Presented in the tables are the responses received when contributors were asked to share their definitions of the following common terms.

WHO regional country examples	Examples of definitions of “Specialisation”
EUROPE	Pharmacists are considered qualified for a specialisation if, after concluding their university diploma, have undergone the PPS Specialists’ Programme on one of the areas of specialisation and achieve the title of ‘specialist’.
EUROPE	Specialist – someone fulfilling the role and with specialist knowledge as defined by Expert Practice Curricula produced by specialist groups in pharmacy.
WESTERN PACIFIC	A recognised branch of a profession in which one specialises.
SOUTH-EAST ASIA	The specialisation in pharmacy education is at postgraduate level. At present ‘The Master of Pharmacy (M.Pharm) Course Regulations, 2014’ is in vogue prescribing the following specialisations (e.g.): 1. Pharmaceutics; 2. Industrial Pharmacy; 3. Pharmaceutical Technology; 4. Pharmaceutical Chemistry; 5. Pharmaceutical Analysis. The speciality practice is governed by specialisation held by the pharmacist. For example the M.Pharm of following specialisations predominantly practice in research, manufacturing, analysis, quality control, etc. - a. Pharmaceutics, b. Industrial Pharmacy, c. Pharmaceutical Technology, d. Pharmaceutical Chemistry, e. Pharmaceutical Analysis, f. Pharmaceutical Quality Assurance, g. Pharmaceutical Biotechnology. 2. Similarly holders of M.Pharm. regulatory affairs practice in the government sector (drug regulatory departments, departments regulating education like PCI, State Pharmacy Councils etc.) 3. Holders of M.Pharm. pharmacy practice basically practice in community pharmacy and hospital pharmacy.
WESTERN PACIFIC	There are two meanings: hospital pharmacist or community pharmacist; pharmacists who have specialised skills in more specific area.
WESTERN PACIFIC	Term used mainly in hospital practice to recognise advanced skills and knowledge in a specified specialised area of practice e.g. renal pharmacist, medicines information.
WESTERN PACIFIC	Refers to advanced practice in a particular clinical area/discipline. The PSAB recognises the following pharmacy specialties for a start: 1. Advanced Pharmacotherapy which includes: cardiology pharmacy, geriatric pharmacy, infectious diseases pharmacy and psychiatric pharmacy; 2. Oncology Pharmacy.
EUROPE	Specialised training in the Health Sciences is an official, structured program whose purpose is to provide professionals with the knowledge, techniques, skills and aptitudes needed for the relevant specialty, while at the same time having the candidate gradually take over the responsibilities inherent to the practice of the specialty.
AMERICAS	An identifiable and distinct field of practice that calls for special knowledge and skills acquired by education and training and/or experience beyond the basic pharmaceutical education and training. Specialisation may focus on a certain therapeutic area (e.g. – oncology) or an area of practice, e.g. health system administration.
AMERICAS	“An identifiable field of pharmacy practice that requires specialised functioning and is distinct from other BPS-recognised pharmacy specialties” . Specialisation often refers to pharmacists who are board certified in the areas of ambulatory care, critical care, nutrition support, nuclear, oncology, paediatric, pharmacotherapy, and psychiatry. Specialisation can also refer to the concept of pharmacists pursuing postgraduate training or experience within a defined pharmacy practice area such as cardiology, oncology, infectious disease, solid organ transplant, critical care, paediatrics, etc. which often precedes formal board certification. See article “Growing trend of specialisation, board certification”
AMERICAS	For the purpose of the needs assessment of pharmacist specialisation, the following definitions were used: Pharmacist Specialists: maintain an active clinical practice that is limited to a particular type of patients (e.g. geriatrics, ambulatory care). Specialties can be either broad (e.g. Pharmacotherapy specialists) or focused (e.g. oncology or cardiology specialists). Pharmacy specialisation requires an advanced body of knowledge distinct of the general practitioner and a specialised or enhanced depth of competency including knowledge, skills, attitudes and accountabilities based on the physical, social, and health sciences, sufficient to manage the most complex of cases and provide clinical leadership in the field. Generally, specialty competencies attained through formal learning /education programs and practice in the field are recognised through a certification process.
AMERICAS	Specialty practice (specialism) is the training on a specific topic as part of a profession or field of application for various professions, such capacitation gets through by an intensive theoretical and practical training
PHARMINE	Specialisation has a syntax meaning of becoming an expert in one particular skill or area. It is not universally accepted as a term to denote ‘sector of practice’. (...) “means an advanced understanding of a specific sector (hospital pharmacy) while “specialist practice” means specific competence in a defined field of practice (for example, oncology pharmacy or radiopharmacy).”

WHO regional country examples	Examples of definitions of “Advanced Practice”
WESTERN PACIFIC	Practice that is so significantly different from that achieved at initial registration that it warrants recognition by professional peers and the public of the expertise of the practitioner and the education, training and experience from which that capability was derived.
WESTERN PACIFIC	Practice necessary of advanced clinical and pharmaceutical knowledge, skills, and experiences.
AMERICAS	Advanced Practice Pharmacists are recognised in California’s state law as pharmacists who may practice pharmacy at an advanced scope.
EUROPE	‘Advanced Training’: Masters programs are designed to give students advanced training of a specialised or multi-disciplinary nature, geared toward an academic or professional specialisation, or to initiate them in research activities.
AMERICAS	Advanced practice often refers to innovative practice models such as the Clinical Pharmacist Practitioner (CPP) model in North Carolina and the Pharmacist Clinician (PhC) model in New Mexico. Advanced practice settings, pharmacists are involved with provision of more expanded direct patient care through comprehensive disease management, CDTM, medication management, health promotion/disease prevention, care coordination and follow-up patient care. Many of these services are similar in scope and complexity to other primary care services delivered in our healthcare system.
AMERICAS	Defining an Advanced Practice Pharmacist: graduation from an accredited experiential pharmacy training program such as a residency, clinical Masters program, or Doctor of Pharmacy program; ability to collaborate with the healthcare team in their clinical practice; ability to access and interpret comprehensive health information relevant to the patient’s care; ability to assess and monitor a patient’s signs, symptoms, and response to therapy; expectation to practice within the person’s scope of expertise; recognition of duty to incorporate evidence-based decisions and the patient’s goals and preferences into the care plan; recognition of duty to communicate interventions and plans to the rest of the care team; ability to monitor the outcomes of interventions; accountability to ensure appropriate follow-up; and responsibility for the patient’s care.
EUROPE	<p>Pharmacy professionals who are experienced practitioners; who are developing complex skills; or who are recognised at NHS Consultant or higher levels of practice. For example, registered practitioners are very often involved in work relating to patients, customers and other staff and are the ones who are experiencing how day-to-day healthcare works in action. They often undertake more education, training and professional development opportunities to further consolidate and develop their skills and knowledge in everyday practice. They are uniquely placed to develop experience across all six clusters.</p> <p>This experience will, of course vary from sector to sector, but these experiences can be mapped to very generic competencies with some additional support and guidance. Essentially the framework is very useful for capturing a practitioner’s experience and development as evidence of advancement. More experienced practitioners hold more complex roles and have greater responsibility for outcomes and deliverables. They develop their abilities through delivery of services, higher levels of responsibility and accountability, by working with colleagues in other settings and projects and by working across boundaries, disciplines and sectors. Familiarity with a specific focus of practice will enable them to improve healthcare for patients, to innovate, educate and research their practice, whatever their sector. As established members of staff, area teams, company or Trust directors or as pharmacy owners and partners, they are able to develop their leadership abilities by actively contributing to the running of the organisation and to the way care is provided in complex systems.</p>

WHO regional country examples	Examples of definitions of “Defined area of practice”
WESTERN PACIFIC	The pharmacist’s area of responsibility and accountability in professional practice. As defined in the Advanced Pharmacy Practice Framework (APPF). Preferred terms are Area of expert professional practice; Scope of practice.
EUROPE	The specific area of responsibility in a role, which may be a specialist or general area of practice but would be covered in depth beyond that of a core area as is the focus of that role. Knowledge and skills are defined in the generic and specialist ‘Professional curricula’.
SOUTH-EAST ASIA	<p>Various areas of expert professional practice are defined as under – ‘Community Pharmacist’ means an individual currently registered and who works according to legal and ethical guidelines to ensure the correct and safe supply of medical products to the general public. They are involved in maintaining and improving people’s health by providing advice and information as well as supplying prescription medicines. ‘Hospital Pharmacist’ means an individual currently registered and who works in a hospital pharmacy service, primarily within the public/private sector. They are responsible for ensuring the safe, appropriate and cost-effective use of medicines. Hospital pharmacists use their specialist knowledge to dispense drugs and advise patients about the medicines, which have been prescribed. They work collaboratively with other healthcare professionals to devise the most appropriate drug treatment for patients.</p> <p>Some pharmacists are also involved in manufacturing required drug treatments. ‘Drug Information Pharmacist’ means an individual currently registered who works in a community pharmacy/hospital pharmacy/teaching hospital/ other healthcare settings and provides information and advice regarding drug interactions, side effects, dosage and proper medication storage to patients/physicians/dentists/other health care professionals. ‘Clinical Pharmacist’ means an individual currently registered and who provides patient care that optimises the use of medication and promotes health, wellness and disease prevention. Clinical pharmacists care for patients in all health care settings. Clinical pharmacists often collaborate with physicians and other healthcare professionals.</p>

WHO regional country examples	Examples of definitions of “Scope of Practice”
EUROPE	<p>Defined as Core Areas of Practice: Core areas cover the common areas that any practitioner would be expected to be familiar with in a similar role at an advanced level.</p> <p>The core areas of pharmacy practice include leadership, management, education, training and development, and research and evaluation.</p> <p>Core clinical areas are defined in the generic and specialist, professional curricula.</p>
WESTERN PACIFIC	The boundaries within which a health professional may practice.
WESTERN PACIFIC	A time sensitive, dynamic aspect of practice, which indicates those professional activities that a pharmacist is educated, competent and authorised to perform and for which they are accountable.
AMERICAS	Describes the procedures, actions, and processes that a healthcare practitioner is permitted to undertake in keeping with the terms of their professional license.
AMERICAS	Types of service the practitioner is trained and permitted to do within their own organisation/province. Scope of practice varies.
AMERICAS	“The boundaries within which a health professional may practice. For pharmacists, the scope of practice is generally established by the board or agency that regulates the profession in a given state or organisation.” The article “Scope of contemporary pharmacy practice: Roles, responsibilities and functions of pharmacists and pharmacy technicians” provides an overview of the current context and scope of pharmacy practice and has a great appendix with a terminology glossary. Please also note that ‘scope of practice’ is governed at the state level by state boards of pharmacy.
WESTERN PACIFIC	The scopes of practice describe the health services that form part of the profession of pharmacy. There are three scopes of practice - intern pharmacist, pharmacist, and pharmacist prescriber. All advanced services fall within the Pharmacist Scope of Practice except prescribing which has its own scope.
WHO regional country examples	Examples of definitions of “Expert professional practice”
WESTERN PACIFIC	A particular field or subject in, which an individual has acquired the knowledge, skills and experiences for them to be accepted as an expert.
EUROPE	<p>The specific area of responsibility in a role, which may be a specialist or general area of practice but would be covered in depth beyond that of a core area as is the focus of that role. Knowledge and skills are defined in the generic and specialist ‘Professional curricula’.</p> <p>A defined area may be: an area of clinical practices e.g. cardiology, paediatrics a specific role e.g. Area Manager, Superintendant Pharmacist a service area e.g. manufacturing of cytotoxics, medicines information.</p>
WHO regional country examples	Examples of definitions of “Privileging”
AMERICAS	The process that healthcare organisations employ to authorise practitioners to provide specific services to their patients. Also sometimes termed “credentialing”, this is a quality assured process, which recognises a practitioner’s attainment of the required knowledge and skills at a particular level of practice. Crucially, this is a process conducted through professional peer review, and is not connected with a regulatory function. It exists for the purposes of validation of practice by peers, and demonstrates a recognition of practice that has value and merit for the general public and other members of the profession or professional colleagues.
WESTERN PACIFIC	The process by which a healthcare organisation, having reviewed an individual healthcare provider’s credentials and performance and found them satisfactory, authorises that person to perform a specific scope of patient care services within that organisation.
WESTERN PACIFIC	The process that healthcare organisations employ to authorise practitioners to provide specific services to their patients.
WESTERN PACIFIC	Permission granted by a facility or institute to the individual to allow them to undertake specific procedures or services. Not specialised in pharmacy.
SOUTH-EAST ASIA	The healthcare organisations like hospitals, dispensaries or community pharmacies and other appointing authorities after being satisfied of the credentials and performance of pharmacist, allow the pharmacist to perform his/her duties.

WHO regional country examples	Examples of definitions of “Extended Practice”
WESTERN PACIFIC	An extension of existing scope of practice, requiring additional education and training and demonstration of competence.
SOUTH-EAST ASIA	Bachelor of Pharmacy (B.Pharm.) is a four years course in which there is a provision for lateral entry for pharmacist holding diploma in pharmacy qualification for admission to direct 2nd year B.Pharm. course. Similarly there is a provision of lateral entry in Pharm.D. course for pharmacist holding B.Pharm. qualification to take direct admission in IVth year Pharm.D. course which is six years duration. Since above provisions are available in the statutory regulations, it motivates the pharmacist to go for extended practice requiring additional education and training for which the scope is available in the Pharmacy Practice Regulations, 2015.
AMERICAS	<p>Pharmacist Extended Practice Regulations made under Section 83 of the Pharmacy Act - “extended practice” means any of the following practices: (i) directly administering drug therapy to a patient, including drug therapy by injection, (ii) testing.</p> <p>Pharmacist and Pharmacy Technician Profession Regulations made under the Regulated Health Professions Act 2014 - extended practice by a pharmacist includes any of the following activities: (a) administering a vaccine or drug therapy to a patient (i) by intradermal, subcutaneous or intramuscular injection, (ii) orally, including sublingual and buccal administration, (iii) topically, including ophthalmic, otic and intranasal administration, and (iv) by inhalation; (b) on and after 1st April, 2016, dispensing methadone and suboxone; (c) prescribing drugs for minor ailments as authorised in the Practice of Pharmacist and Pharmacy Technicians Regulations.</p> <p>Pharmaceutical Regulation made under The Pharmaceutical Act - "extended practice pharmacist" means a member whose name is entered on the register of extended practice pharmacists under Part 12. To be an applicant for extended practice pharmacist: 95(1) An applicant for registration as an extended practice pharmacist must (a) be a member who is qualified as a specialist in an area described in section 96, (b) submit an application to the board in the form approved by the council; (c) practice or undertake to practice in a collaborative practice that meets the requirements of clause(s) (c); and (d) pay the fee provided for in the by-laws. Section 96 - A member is qualified as a specialist in an area upon providing evidence satisfactory to the registrar that he or she has one or more of the following qualifications: (a) board certification from the American Board of Pharmacy Specialties in one of the following specialties, is currently practising, and has practised for at least 1000 hours in the two years before applying for registration, in a healthcare setting in one of the following specialty areas: (i) ambulatory care pharmacy, (ii) nuclear pharmacy, (iii) nutrition support pharmacy.</p>
EUROPE	Pharmacists must undertake accredited training in order to provide flu vaccination service. This is not officially referred to as extended practice, but is provided for by legislation (http://www.irishstatutebook.ie/2011/en/si/0525.html).
WHO regional country examples	Examples of definitions of “Professional Recognition”
EUROPE	Professional recognition comes as a title awarded by the PPS that might be relevant for the pursuit of specialised pharmaceutical acts. Title awarded by the PPS can come from special academic education (MSc, PhD, etc.), other relevant education or specialisation programmes of the PPS. These are specially detailed in the PPS database and come written on the pharmacists’ professional card. Some professional acts are reserved for specialisation titles awarded by the PPS.
SOUTH-EAST ASIA	The term used for professional recognition is “Registered Pharmacist”, as an acknowledgement of a pharmacist’s professional status and right to practice the pharmacy profession in accordance with prescribed professional standards.
EUROPE	Public, express and individual recognition of the level attained by a healthcare professional in terms of knowledge, experience in service, teaching and research activities, as well as of complying with the service or research-oriented goals of the organisation where they provide their services. Access to the professional development system is voluntary and open to any professional who provides services within Spain.
WESTERN PACIFIC	<p>The recognition is divided into four levels. Obtaining the first level and accessing subsequent levels requires a favourable evaluation of the applicant’s knowledge, skill, accredited continuing training, and teaching and research activity. Also considered will be the results of hospital care services, their quality, and compliance with assessment indicators. Anyone with five years of accredited professional practice is eligible for the first level.</p> <p>Advanced and Extended Pharmacy Practice - an environmental snapshot discusses professional recognition for advanced practice for pharmacy and other professions. There is no generally defined term used in practice to describe aspects of advancing practice and specialisation. The professional recognition of advanced practice will be via the awarding of the Credential of Advanced Practice Pharmacist.</p>

WHO regional country examples	Examples of definitions of “Credential” or “Credentialing”
WESTERN PACIFIC	Credential: Documented evidence of professional qualifications. Credentialing: Process by which an authorised organisation/body reviews and verifies a practitioner’s qualifications, skills, experience and competencies against defined standards, applying for advanced practice recognition by submitting a practice portfolio for evaluation against the APPF and the standards/policies and procedures.
AMERICAS	The CSHP permits its fellows to use the credential FCSHP and for those that complete a residency program may use ACPR.
EUROPE	A process of acts as a workforce incentive to develop a broad scope of advanced competencies necessary for service delivery and patient care. This forms part of professional recognition, a key element of which is a system for awarding credentials following quality assured assessments for practice beyond day one.
WESTERN PACIFIC	Authorising a defined practice activity. Just starting to use this term, as it is used widely internationally and better reflects the situation rather than the current common term of ‘accreditation’.
SOUTH-EAST ASIA	“Credentialing” is a process that identifies when a defined set of knowledge, skills and experiences has been met at a defined standard of practice, and where an individual is able to demonstrate this against a consistent method of assessment.
AMERICAS	“A credential is a documented evidence of professional qualifications”. “Credentialing” refers to one of two processes: the first is the process of granting a credential (such as granting a practitioner a license to practice or granting board certification); the second is the process by which an organisation or institution obtains, verifies, and assesses an individuals’ qualifications to provide patient care services.
AMERICAS	“Credentialing” (1) the process of granting a credential (a designation that indicates qualifications in a subject or an area); and (2) the process by which an organisation or institution obtains, verifies, and assesses an individual’s qualifications to provide patient care services. “Credential”: documented evidence of professional qualifications. Academic degrees, state licensure, residency certificates, and certification are all examples of credentials. Credentialing is frequently done at an institutional level (e.g. – a health system will credential its own staff).
AMERICAS	“Tuition” is the credential that certifies that the holder is a registered professional by the correspondent authority.
WESTERN PACIFIC	Credentialing is required for specialist pharmacists. The credential is offered by PSAB/SPC.
WESTERN PACIFIC	Credential is usually given to individuals (for programmes, accreditation is often granted); a document presenting the evidence of successful results of certain training.

PART 6

SUMMARY AND CONCLUSIONS

The data presented in this report represents the first time that specialisation and advanced practice, as defined scopes of practice, have been codified and examined. FIP Education Initiative will continue to move forward in this area with the aim of providing a foundation for workforce development in a transnational context. It should be noted that the foundations of practice, and early career development are considered by *FIPEd* to be of equal, if not greater, importance with regards to workforce development, but we also recognise that many in the pharmacy workforce are at a practice level beyond that of foundation.

What is clear from this first collection of global data is that professional advancement and the professional recognition of advancement in practice is a developing trend worldwide. This can be attributed to a number of reasons, such as the increasingly complex role of pharmacists, the enhancement of more patient facing roles and greater extent of clinical pharmacy with the associated risk this entails and a consequent need to be able to endorse professional capabilities. Comparisons and parallels with medical practice and the advancement of physicians, for example, are notable.

As pharmacists continue to become more clinically-oriented health professionals, with enhanced responsibilities and accountabilities for pharmaceutical care in clinical environments, then clear pathways for workforce development, coupled with professional recognition and credentialing of practitioners, is an important consideration. In addition, this represents a clear opportunity for transnational collaboration and further opportunities for transnational recognition of advanced capabilities for the pharmacy workforce.

The public and our patients should expect the highest possible pharmaceutical care from professional practitioners worldwide, without exception. A clear demonstration and assurance of competence and capability that is commensurate with advanced and expert practice is a clear message to civil society that pharmacists possess this expertise; professional recognition, credentialing and quality assured specialisation are part of this demonstration of competence and capability. It is in the interest of patients, health systems and our profession that we develop a common and shared understanding of what we mean by “specialisation” and by “advanced practice”. This is a key driver for future workforce development.

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