FIP Global Advanced Development Framework

Handbook

Supporting advancement of the profession

Version 1
2020

Colophon

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

Editors:
Associate Professor Kirsten Galbraith, FIP Workforce Development Hub Lead for Advanced Practice and Specialisation & Faculty of Pharmacy and Pharmaceutical Sciences, Monash University (Australia)
Arit Udoh, FIP Workforce Development Hub Lead for Advanced Practice and Specialisation & School of Medical and Dental Sciences, University of Birmingham, Birmingham (United Kingdom)
Desak Ketut Ernawati, FIP Workforce Development Hub Lead for Advanced Practice and Specialisation & Faculty of Medicine, Universitas Udayana, Denpasar (Indonesia)
Professor Ian Bates, Director of the FIP Workforce Development Hub & UCL-FIP Collaborating Centre, University College London, School of Pharmacy (United Kingdom)
Dr Lina Bader, FIP Lead for Workforce Transformation & Development (The Netherlands)
Ms Sherly Meilianti, FIP Research Analyst, Workforce Transformation Programme & Doctoral Candidate, UCL-FIP Collaborating Centre, University College London, School of Pharmacy (United Kingdom)

ISBN: 978-9-083092-81-2

Design and layout:
International Pharmaceutical Federation

Recommended citation:
International Pharmaceutical Federation (FIP). FIP Global Advanced Development Framework: Supporting the advancement of the profession version 1. The Hague: International Pharmaceutical Federation; 2020

Contents

Acknowledgements....4
Foreword....5
Executive summary....6
Part 1 Introduction and background....7
1.1 Investment in advanced practice development....7
1.2 Global evidence and national workforce transformation....7
Part 2 Development of the FIP Global Advanced Development Framework (GADF)....10
Part 3 Design features of the FIP Global Advanced Development Framework (GADF)....12
3.1 Principles of GADF....12
3.2 Clusters and competencies of the GADF....12
3.3 Stages of advancement....12
Part 4 Strategies for adopting and using the GADF....19
4.1 Guidance on implementation....19
4.2 Country experiences....19
4.3 Institutional experiences....28
4.4 Individual experiences....30
Part 5 Next Steps for the GADF Version 1....38
Part 6 Summary and conclusions....39

Acknowledgements

FIP wishes to thank the following people for their contribution to this document:

FIP GADF Project Team

Catherine Duggan, FIP Chief Executive Officer (The Netherlands)
Kirsten Galbraith, FIP Workforce Development Hub Lead for Advanced Practice and Specialisation & Associate Professor, Faculty of Pharmacy and Pharmaceutical Sciences, Monash University (Australia)
Arit Udoh, FIP Workforce Development Hub Lead for Advanced Practice and Specialisation & School of Medical and Dental Sciences, University of Birmingham, Birmingham (United Kingdom)
Desak Ketut Ernawati, FIP Workforce Development Hub Lead for Advanced Practice and Specialisation & Faculty of Medicine, Universitas Udayana, Denpasar (Indonesia)
Ian Bates, Director of the FIP Workforce Development Hub & UCL-FIP Collaborating Centre, University College London, School of Pharmacy (United Kingdom)
Lina Bader, FIP Lead for Workforce Transformation & Development (The Netherlands)
Sherly Meilianti, FIP Research Analyst, Workforce Transformation Programme

FIP GADF Internal Reference Group

Claire Anderson, Professor of Social Pharmacy, University of Nottingham (United Kingdom)
Naoko Arakawa, Assistant Professor in International Pharmacy, School of Pharmacy, University of Nottingham (United Kingdom)
Parisa Aslani, Professor in Medicines Use Optimisation, The University of Sydney School of Pharmacy (Australia)
Jill Boone, Professor of Pharmacy Practice and Director of Interprofessional Education at the James L. Winkle College of Pharmacy, University of Cincinnati (United States)
Sa'idu Lawal Burji, Jigawa State Officer in-charge, Pharmacists Council of Nigeria (PCN) & FIP YPG Subcommittee (Nigeria)
Maria Virginia Giolito, Cancer Research Center of Lyon & FIP YPG Subcommittee (Argentina)
Roy Himawan, National Professional Officer of the FIP-IAI Workforce Transformation Programme (Indonesia)
Aya Jamal, President Elect, International Pharmaceutical Students' Association (Sudan)
Susan James, Director, Quality, Ontario College of Pharmacists (Canada)
Hanane Kebali, Pharmacy Student, Benboulaid University & FIP YPG Subcommittee (Algeria)
Diala Koudmani, Research Associate, UCL-FIP Collaborating Centre (Syria)
Zuzana Kusynová, FIP Lead for Policy, Practice and Compliance (The Netherlands)
Renly Lim, National Health and Medical Research Council (NHMRC) Early Career Fellow, University of South Australia & FIP YPG Subcommittee (Australia)
Arijana Mestrovic, Director, Professional Affairs Pharmaexpert (Croatia)
Banan Mukhalalati, Assistant Professor of Clinical Pharmacy and Practice Section, College of Pharmacy, Qatar University (Qatar)
Saja A. Alnahar, Assistant Professor of Social and Administrative Pharmacy, Faculty of Pharmacy, Yarmouk University (Jordan)
Giovanni Pauletti, FIP Scientific Secretary (United States)
Ema Paulino, FIP Professional Secretary (Portugal)
Gonçalo Sousa Pinto, FIP Lead for Practice Development, Advocacy and Data Management (The Netherlands)
Toyin Tofade, Dean and Professor at Howard University College of Pharmacy, (United States)
Arit Udoh, Senior Clinical Trial CRD/Project Manager, College of Medical and Dental Sciences, University of Birmingham (United Kingdom)
Nilhan Uzman, FIP Lead for Education Policy and Implementation (The Netherlands)

Translators

Saja A. Alnahar (Arabic); Pascal Mongane & Hanane Kebali (French); María Virginia Giolito & Patricia Klahn Acuña (Spanish); Roy Himawan & WTP Indonesia team (Indonesia); Filipa Costa (Portuguese); You Zhuan & Xiao Yu (Chinese)

Foreword

The Astana Declaration 2018 reaffirmed the global commitment to Primary Health Care (PHC) as a vital mechanism to achieve Universal Health Coverage (UHC) by 2030 for all by countries and states around the world. The International Pharmaceutical Federation (FIP) is leading pharmacy's commitment to delivering the Astana Declaration by ensuring pharmacy and the pharmacy workforce are embedded and positioned as integral to the delivery of quality PHC. We believe that quality PHC needs pharmacists, and our role has never been stronger.

As a vital health profession who play a pivotal role for healthcare systems, it is imperative to develop a flexible, adaptable and competent pharmaceutical workforce to meet patient needs and to optimise complex pharmaceutical care. The FIP vision describes a future in which advanced generalist and specialist pharmacists have the flexibility to adapt to emerging patient and health system needs, essential to achieving UHC. Clear pathways for workforce development alongside practice development and transformative science will be enabled by professional recognition and credentialing of practitioners in due course. There is a clear opportunity for transnational collaboration and further opportunities for transnational recognition of advanced capabilities for the pharmacy workforce. It is therefore important to develop a global tool to support individuals, institutions and national bodies.

To address these imperatives, the FIP Global Advanced Development Framework (GADF) is a validated tool designed to support the professional development and recognition of the pharmacy workforce everywhere. The primary aim of this framework is to identify broad areas of professional development and pharmaceutical workforce's advancement to develop individual careers in a structured way. This tool is designed to be adopted and adapted in any pharmaceutical sector, practice area or field, for pharmacists and pharmaceutical scientists. To support the use of the GADF, this handbook summarises the drivers for advancing pharmacy practice, the development process undertaken on the framework itself, alongside guidelines on how to use it and how it is being implemented around the world.

This handbook accompanies our current FIP Workforce Transformation Programme (WTP) which we developed to support our national member organisations and partners in implementing this GADF and advancing their pharmacy workforce. This report is only feasible because of the collective expertise, energy, effort and commitment of key authors, editors, reviewers, volunteers and respondents who have provided evidence and data. On behalf of FIP, I am sincerely grateful to all those groups. Without their support, this publication would not be possible.

Catherine Duggan

Chief Executive Officer, FIP

Executive summary

1. What is the GADF?

1.1 The FIP Global Advanced Development Framework (GADF) Version 1 is a validated tool intended **to support the professional development and recognition** of the pharmacy workforce everywhere. The framework has the primary purpose of identifying broad areas for professional development and advancement for pharmacists and pharmaceutical scientists to develop their careers in a structured manner.

1.2 The GADF builds on the support provided by the FIP Global Competency Framework (GbCF). The FIP current workforce policy suggests that special attention is paid to "early-year careers" (the immediate post-licensure foundational period of perhaps 1 to 2 years). The GbCF is designed as a focused support structure for our younger professionals. Our current evidence suggests that pharmacists should start professional development engagement with GADF following this early but crucial foundational career stage (see FIP Development Goal 2).

1.3 At present, the GADF currently maps **three broad-based advanced practice stages** across developmental competencies focused on **medicines expertise, leadership capabilities** (e.g. clinical, medicines related activities, teamwork, etc.), **managing health and professional delivery services and people, training and mentoring,** and **developing evaluation skills and innovation in health and professional service provision**. FIP believes these capabilities are all common components of a rounded, flexible, effective and advanced pharmacist practitioner, and relatable to pharmaceutical scientists too.

1.4 The implementation of the GADF not only supports our individual members in their career progression but is crucial for progress in collectively working towards meeting the FIP Global Vision for Pharmaceutical Workforce & Education and the FIP Development Goals (FIP DGs), particularly FIP DG 4: Advanced and specialisation development. It is about fully extending service delivery, be it for our communities and patients or for providing medicines expertise to our nations.

2. How can the GADF be used?

2.1 The GADF is developed by FIP to support its members and stakeholders progress and advance medicines related practice at national and institutional levels. It can be used by individual practitioners and scientists to map and plan their professional development and develop their personal development portfolio and career pathway.

2.2 The GADF is designed to be applicable for all career options in our profession- pharmacists and pharmaceutical scientists. For our national member organisations and partners, the GADF is designed to be adopted and adapted for **any pharmaceutical sector, practice area or field and pharmacists, pharmaceutical scientists and the support workforce** to develop their advanced practice and specialisation and assist with their career progression. FIP is able to support professional leadership bodies directly in this adoption and adaptation process, enabling ownership at a national level, through the FIP Workforce Transformation Programme (WTP). Implementing the GADF is a direct contribution to national progression for FIP DGs 4, 5, 6, 7, 8, 9 and 11.

2.3 This framework complements the FIP GbCF for foundation or early career practice, which is already being globally implemented by our member organisations as part of the FIP WTP roll-out. The GADF will increase opportunities for transnational collaboration and will enhance learning opportunities between countries, directly linking to the FIP Strategic Plan and our members' priorities.

Part 1 Introduction and background

1.1 Investment in advanced practice development

The global health workforce is the foundation of strong and sustainable health systems, able to deliver quality health care services for better health outcomes (1). Investing in the capacity, competency and capability of health workers is critical to achieving universal health coverage (UHC) and the United Nations (UN) Sustainable Development Goals (SDGs) (2). The UN High-Level Commission on Health Employment and Economic Growth, the World Health Organisation's (WHO) Global Strategy on Human Resources for Health, and the 'Working for Health: Five-Year Action Plan for Health Employment and Inclusive Economic Growth (2017–2021)' all call for the unequivocal need for investment in the global health workforce (3-5).

Health systems organisation, demographic and priority changes are influenced by growing and ageing populations, shifts in disease and epidemiological profiles in patients, and scientific advances in technology and medicines. Systems and health workers are therefore required to be responsive to these changes and capable of addressing complex national health and patient needs that require advanced and specialist knowledge and skills. One of the WHO Global Strategy's key objectives describes the imperative to "optimise performance, quality and impact of the health workforce through evidence-informed policies on human resources for health" (3). The UN Commission also calls for investment in lifelong learning so that health care workers "can work to their full potential" (4). The more recent Astana Declaration (6) by WHO also emphasised the importance of primary health care services in country to help in achieving Health for All. Achieving these objectives is dependent on re-configuring the workforces ensuring that they practice within the full and extended scopes of their practice.

As experts in medicines, pharmacists play a key role in optimising safe and effective use of medicines - a prerequisite to achieving UHC and SDG 3 to 'Ensure healthy lives and promote wellbeing for all at all ages'(2). Recent decades have witnessed an expansion of pharmacists' roles from being primarily product-centred compounders to becoming competent and capable patient-centred practitioners who deliver expert services related to medicines and their use. In light of this and the growing evidence supporting pharmacists' direct effects on improved patient outcomes (7) there is increasing movement towards professional recognition of advancement of performance, credentialing and quality assured specialisation of pharmacists. It is recognised that the capabilities of 'advanced' pharmacists to deliver enhanced patient care and make clinical decisions are at higher levels than those of entry-level pharmacists (8, 9).

Developing an enhanced scope of practice through advancement, often accompanied (but not always) with a focused specialisation, will therefore potentially widen the public's access to optimised medicines-related healthcare services. The WHO Astana Declaration of 2018 emphasised the importance of primary health care services in achieving "Health for All", and the role of pharmacists in this mission has never been stronger (10). Having structured advancement of pharmacy practice is imperative to develop a flexible, adaptable and competent global workforce to meet the challenge of optimisation of complex pharmaceutical patient care. Clear career pathways for workforce development, coupled with professional recognition of practitioners, becomes a priority.

1.2 Global evidence and national workforce transformation

Two recent and significant developments in pharmacy education and workforce contribute to our understanding of workforce policy development. In 2015, the International Pharmaceutical Federation (FIP) published a global report on Advanced Practice and Specialisation in Pharmacy (11). This report was the first to provide a baseline on global trends to formally recognise the advancement of practice, including elements of specialisation and professional recognition (11). This report outlined summaries from 48 countries and territories, confirming that there was global variation on systems for developing advanced practice and specialisation (12, 13). This variance included terminology and definitions of advanced

practice and specialisation (See Figure 1), developmental frameworks for advancement of practice and specialisation, professional recognition mechanisms and perceived benefits across countries (11, 13). In addition, evidence from seventeen in-depth country case studies informed our understanding of the impact of national frameworks on advanced practice development & specialisation (11, 12).

FIP uses a consensus definition of **"Advanced Practice"** which is taken to mean a stage of pharmaceutical practice that is significantly enhanced compared with initial practice at registration. This stage of enhanced practice can be subject to peer-review professional recognition processes of the expertise and capabilities of the practitioner; this would inevitably be underpinned by the continued education, training and experiential development of the practitioner, for example, see (14). Area of **"Expert Professional Practice"** refers to the particular field or subject in which an individual feels they have acquired the knowledge, skills and experiences to be acknowledged as an expert. Expert Professional Practice may be broad or narrow in scope; if the scope is narrow, it may also be referred to as an area of Specialty Practice (15).

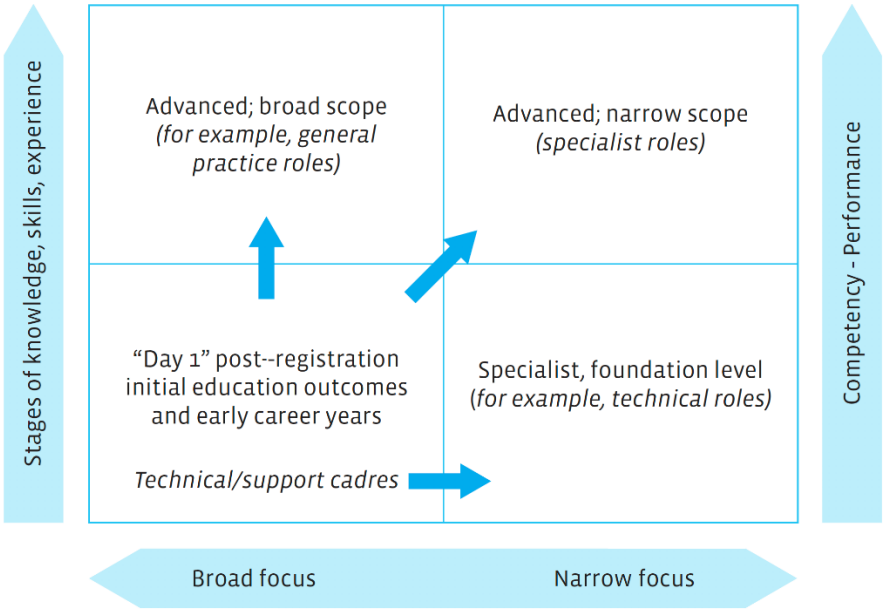

Figure 1: From "Advanced Practice and Specialisation in Pharmacy (11)

Following the 2015 Report, the FIP subsequently set out a roadmap (16) to facilitate the transformation of pharmaceutical education and workforce by providing the appropriate strategic tools to support and develop education and pharmaceutical workforce at national levels. One of these outcomes was the Pharmaceutical Workforce Development Goals (PWDGs), a globally consented systematic framework to support and drive country-level workforce transformation based on needs assessments (17).

In 2020, FIP launched the FIP Development Goals (FIP DGs). The FIP DGs are major initiative for pharmacy and they build on the PWDGs to develop goals that not only drive the transformation of workforce & education but also practice and science. The FIP DGs align with FIP's mission to support global health by enabling the advancement of pharmaceutical practice, sciences and education. Having a set of "One FIP" Development Goals enables us to identify commonalities across all areas of FIP, as well as some unique attributes in each area. We believe it is imperative to bring science, practice and workforce & education together into one transformative framework for our members and the wider profession to clearly set out the goals for development for the next decade.

Together with the existing Goals for workforce and education, new goals have been developed for practice and science, which form the core elements of the FIP DGs. Practice and science elements were

developed and the wider set extended to 21 FIP DGs to accommodate additional practice and science themes. Each of 21 FIP DGs comprise essential workforce, practice and science elements. The existing 13 PWDG descriptions and mechanisms remain as an underpinning to the workforce elements of the FIP Development Goals 1-13.

FIP Development Goal 4 'Advanced and specialist expert development' and FIP Development Goal 5 'Competency Development' now each include the original PWDG as a Workforce element alongside new elements for workforce and science. The elements provide outline indicators for progress, informed by evidence from the 2015 Report (See **Error! Reference source not found.** & 2). FIP evidence from both data sets clearly show a positive correlation between the level of advanced practice & specialisation development and the existence of a framework for professional recognition.

Transforming the global pharmaceutical workforce to meet the primary health care and Universal Health Coverage (UHC) agenda requires a future in which advanced generalist and specialist pharmacists have the flexibility and capability to adapt to emerging patient and health system needs that are essential to achieving UHC. The pharmaceutical workforce is a principal access point for primary health care for people with acute and long-term conditions in addition to preventative and public health services. To have pharmacists working at recognised levels of advancement will improve and safeguard patient safety and more effectively manage complexity in many areas of expert practice. Additionally, professional recognition of advanced practice improves acceptance by other colleagues in the clinical team; this includes other areas of practice such as research, education or healthcare management. The pharmaceutical workforce does need highly competent specialist pharmacists, but in a global context, we urgently need an expert cadre of generalist pharmacists, with advanced capabilities to support a wide range of long term and acute medicines-driven disease management. "Advanced generalist" is a key workforce goal to enable universal health cover for primary healthcare needs.

FIP is committed to facilitate global implementation of the FIP DGs, including FIP DG 4 through the provision of the Global Advanced Development Framework (GADF) as a development tool.

The FIP introduced the FIP Global Competency Framework (GbCF) in 2012 (18). This framework suggested that although there were some country-specific variations in pharmacy practice, there is a set of competencies which are globally applicable for foundation practice development. Since its introduction, it has been used by some countries to develop their foundational framework (19-21). In a similar way, some countries have described the development of their advanced competency framework by process of adopting and adapting a framework from another country. A recent controlled crossover study demonstrated transnational comparability of two national advanced competency frameworks (22). Therefore, there is a clear opportunity for transnational collaboration on framework development.

Building on the Global Competency Framework (GbCF), FIP recognises the importance of developing a globally applicable Advanced Development Framework, with the aim of producing a mapping and development tool to advance the pharmacy profession. Because it is founded in outcomes of education and training, this framework will have interest and applicability for leaders, national organisations, educators, regulators and practitioners who are working towards global advancement of pharmacy practice. This will have important applications for fostering transnational collaboration and enhancing all aspects of our professional scope of practice, across all sectors and settings.

Part 2 Development of the FIP Global Advanced Development Framework (GADF)

The GADF Version 1 development process can be explained in the following phases (see Figure 2).

Phase 1: Adaptation of the Advanced to Consultant Level Framework (ACLF)

The original framework used as a platform for the Global Advanced Development Framework (GADF) is the Advanced & Consultant Level Framework (ACLF), developed by the UK-based Competency Development and Evaluation Group (CoDEG). The ACLF was initially developed for pharmacists working in the clinical services (23) and after initial trials was contextually revised to map all sectors and scopes of practice. It was designed as a professional development framework for practitioners who are working at more complex or advanced levels of practice across all scopes of practice; it has been repeatedly tested and validated – and evolved - in different specialities of pharmacy, in a variety of sectors and levels of practice (24-29).

The development of the ACLF itself was conducted through a mixed methodology of grounded qualitative analysis, Delphi approaches for consensus building, controlled trial methodology and statistical applications such as multiple correspondence analysis (MCA) (30). The domains of developmental competencies (expert practice, collaborative working, leadership and management, educational and evaluative competencies) have subsequently and similarly been identified by other professions as core and essential areas for practice development. The ACLF has a history of adoption and adaptation by other countries to develop locally national validated frameworks (29-32). There is a current activity for adaptation in non-English speaking countries, for example, Indonesia and Jordan, to develop and test generalisability and validity outwith the original cultural context of the framework.

Phase 2: Validation through country adoption

Between 2018 and 2019, the original ACLF was initially modified in preparation for a nation-wide survey in Indonesia (See Section 4.2.2), as part of its national adoption and adaption process. Formalised feedback on context, language and terminology resulted in a draft GADF which was subsequently validated via a survey of registered pharmacists in Indonesia. More than 6,000 responses regarding usability, relevance and generalisability of the draft GADF were received. Integration of validation responses resulted in an Indonesian version which was subsequently mapped to form the basis of GADF Version 1. A targeted Jordanian adaptation, using similar methodology, is planned for 2020.

See Part 4 of this Handbook for country experiences on adopting and adapting the GADF.

Phase 3: Expert engagement with the FIP Internal Reference Group

To prepare the launch document for the Global Advanced Development Framework (GADF) Version Zero, an engagement process with experts drawn from across FIP members was conducted. These members constituted the FIP GADF Internal Reference Group (IRG) (see acknowledgements for further details). Following a communications and webinar package, an online feedback questionnaire was circulated to gain a cross-cultural data review set. Further iteration, incorporating feedback from this consultation, resulted in the production of GADF Version Zero for wider member engagement in Abu Dhabi in September 2019.

Phase 4: External engagement with pharmacy stakeholders

The launch of GADF Version Zero in late 2019 was accompanied by a simultaneous launch of a continuous online feedback survey for external stakeholder engagement in order to evaluate the continued relevance and validity of the tool. Feedback and comments from the survey were reviewed and incorporated into Version 1. This engagement provided further validation data for this framework and to ensure it meets general needs as a mapping and development tool.

Phase 5: GADF implementation and ongoing consultation

Following the completion of the external member stakeholder engagement (Phase 4) and review and incorporation of feedback received, combined with the focused country level validation (from Indonesia and Jordan), the GADF version 1 was launched. This does not preclude the use of the Version Zero; GADF -

regardless of the version - is always available to be adopted and adapted to specific country needs – please contact the FIP Team if you wish to have a targeted project developed to implement this framework.

The GADF version 1 will have available translations in several languages. Please contact the FIP Team if you have specific translation requirements.

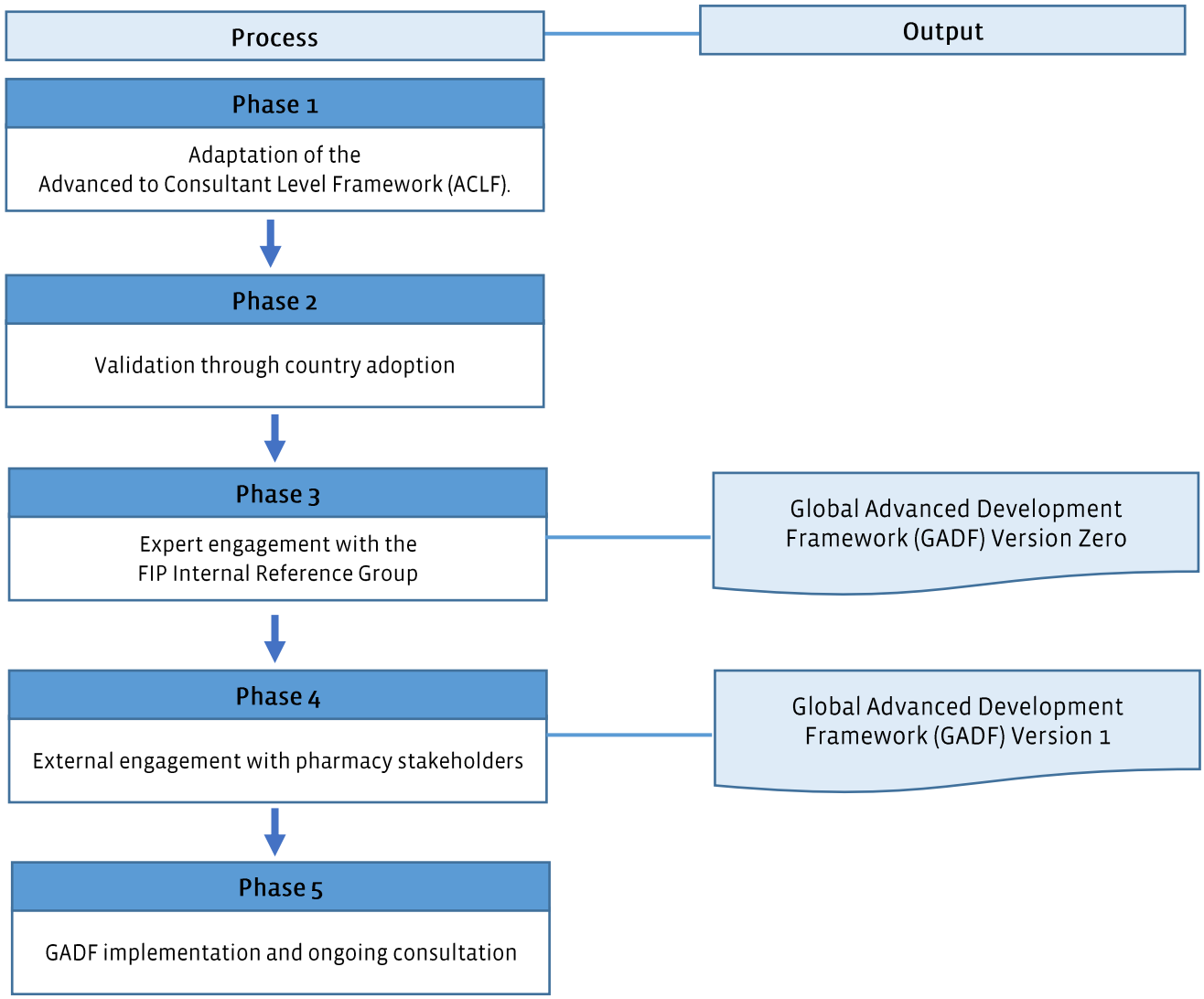

Figure 2: Development of the GADF Version 1

Part 3 Design features of the FIP Global Advanced Development Framework (GADF)

3.1 Principles of the GADF

The GADF is intended to be relevant and applicable across a broad range of career options that are available in the pharmacy profession. The educational design is aimed at supporting individual professional portfolio development and should be directly linked to personal career development. The GADF has a primary purpose of supporting structured career development and is therefore grounded in the context of developmental progress, enabling the identification of areas for professional growth and development and supporting the development of a professional portfolio of evidence for pharmacy practitioners.

As the GADF is designed to be generally applicable, it does not define job descriptions or a specific scope of practice; it generically and structurally supports the continued professional development of pharmacy practitioners along any chosen career trajectory. The literature supports the principle that the advancement of professional healthcare developmental competencies should include those competencies connected with leadership, managing others, educating and mentoring others and supporting evaluation and innovation in health service provision.

3.2 Clusters and competencies of the GADF

There are currently 6 clusters of developmental competencies included in the GADF. The six clusters are:

1. Expert Professional Practice
2. Working with others
3. Leadership
4. Management
5. Education, Training and Development
6. Research and Evaluation

The first cluster, "Expert Professional Practice" is adaptable for all sectors and specialities. As defined earlier, "Expert Professional Practice" refers to the particular field or subject in which an individual feels they have acquired the knowledge, skills, and experiences to be acknowledged as an expert. Expert Professional Practice may be broad or narrow in scope; if the scope is narrow, it may also be referred to as an area of Specialty Practice (15). The term is not only for the pharmacy workforce providing direct patient care services but also for the pharmacy workforce working in other areas of practice (e.g. drug development, regulatory, etc.). "Expert practice" should be defined and shaped by the practitioner, within the context of the individual's job and career. The Expert Practice cluster reflects this design principle and is formatted to allow the advancing practitioner to self-define their area of medicines expertise.

The remaining five clusters are generic domains which are applicable and independent of sector of practice or focus. There are 34 competencies located across 6 clusters. Each competency has three defined stages of advancement which will allow a continuum of practitioner development and progression.

3.3 Stages of Advancement

The three defined stages of advancement are "Advanced Stage 1"; "Advanced Stage 2"; and "Advanced Stage 3". **"Advance Stage 1"** describes a practitioner who performs well and is at the early stages of advancement. **"Advanced Stage 2"** describes a practitioner who is an expert in their area of practice. They are able to manage complex situations and are recognised as leaders locally/regionally. **"Advanced Stage 3"** describes a practitioner who is recognised as a leader in an area of expertise (nationally, and often internationally).

The GADF Version 1 is presented in Table 1 below.

Table 1: The FIP Global Advanced Development Framework (GADF) Version 1

Clusters and competencies	Advanced Stage 1	Advanced Stage 2	Advanced Stage 3
1. Expert Professional Practice Improves standards of pharmaceutical care			
1.1. Expert Skills and Knowledge	Demonstrates general pharmaceutical skills and knowledge in core areas. Plans, manages, monitors, advises and reviews programmes in core areas.	Demonstrates in-depth pharmaceutical skills and knowledge in defined area(s). Plans, manages, monitors, advises and reviews in-depth/complex programmes in defined practice area.	Advances in-depth/complex programmes in defined practice area.
1.2. Developing Professional Expertise, including accountability and responsibility	Demonstrates accountability in providing professional expertise and direct service delivery	Demonstrates accountability in providing professional services and expertise via a team or directly to groups of patients/clients/users.	Demonstrates accountability in providing professional expertise at a defined higher level (for example nationally, regionally, internationally or at a strategic level).
1.3. Reasoning and Judgement Including: Analytical skills, Judgemental skills, Interpretational skills, Problem solving skills, Option appraisal	Demonstrates ability to use skills in a range of routine situations requiring analysis or comparison of a range of options. Recognises priorities when problem-solving and identifies deviations from the normal pattern.	Demonstrates ability to use skills to make decisions in complex situations where there are several factors that require analysis, interpretation and comparison. Demonstrates an ability to see situations holistically.	Demonstrates ability to use skills to manage difficult and dynamic situations. Demonstrates ability to make decisions in the absence of established practice, protocols, evidence or data or when there is conflicting evidence or data.
1.4. Professional Autonomy	Is able to follow legal, ethical, professional and organisational policies/procedures and codes of conduct.	Is able to take action based on own interpretation of broad professional policies/procedures where necessary.	Is able to interpret relevant policy and strategy, in order to establish goals and standards for others within the defined area(s).

Clusters and competencies	Advanced Stage 1	Advanced Stage 2	Advanced Stage 3
2. Working with Others Is able to communicate, establish and maintain professionally driven working relationships and gain the co-operation of others			
2.1. Communication Including ability to: Persuade, Motivate, Negotiate, Empathise, provide reassurance, Listen, Influence, and Empower (includes networking skills and presentation skills)	Demonstrates use of appropriate communication to gain the co-operation of relevant stakeholders (including patients, colleagues, and other professions). Demonstrates ability to communicate where the content of the discussion is explicitly defined.	Demonstrates use of appropriately selected communication skills to gain co-operation of small groups of relevant stakeholders within the organisation. Demonstrates ability to communicate where the content of the discussion is based on professional opinion.	Demonstrates ability to present complex, sensitive or contentious information to large groups of relevant stakeholders. Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere.
2.2. Teamwork and Consultation	Demonstrates ability to work as a member of a team. Recognises personal limitations and refers to more appropriate colleague(s).	Demonstrates ability to work as an acknowledged member of a multidisciplinary team. Accepts expert advice through consultation from within the organisation.	Works across boundaries to build relationships and share information, plans and resources. Sought as an opinion leader both within the organisation and in the external environment.

Clusters and competencies	Advanced Stage 1	Advanced Stage 2	Advanced Stage 3
3. Leadership Inspires individuals and teams to achieve high standards of performance and personal development			
3.1. Strategic Context	Demonstrates understanding of the needs of stakeholders. Practice reflects relevant local, national, regional or global policy.	Demonstrates ability to incorporate relevant local, national, regional or global policy to influence local strategy.	Demonstrates active participation in creating relevant local, national, regional or global policy policies.
3.2. Governance (Standards, Quality and Accountability)	Demonstrates understanding of the pharmacy role in governance, and pharmacists are able to implement this appropriately within the workplace.	Influences the planning or development of governance processes, for the team and/or service delivery.	Shapes and contributes to the planning or development of governance processes at a higher level.
3.3. Vision	Demonstrates understanding of, and contributes to, the organisation vision.	Creates vision of future and translates this into clear directions for others.	Convinces others to share the vision at a higher level.
3.4. Innovation	Demonstrates ability to improve quality within limitations of service.	Recognises and implements innovation from the external environment.	Takes the lead to ensure innovation produces demonstrable improvement in service delivery.
3.5. Service Development	Reviews last year's progress and develops clear plans to achieve results within priorities set by others.	Develops clear understanding of priorities and formulates practical short-term plans in line with workplace strategy.	Relates goals and actions to strategic aims of organisation and profession.
3.6. Motivational	Demonstrates ability to motivate self to achieve goals.	Demonstrates ability to motivate individuals and/or the team.	Demonstrates ability to motivate individuals and/or teams at a higher level.

Clusters and competencies	Advanced Stage 1	Advanced Stage 2	Advanced Stage 3
4. Management Organises and delivers service objectives in a timely fashion			
4.1. Responding and adapting to national needs	Demonstrates understanding of the implications of national priorities for the team and/or organisation.	Shapes the response of the team and/or organisation to national priorities.	Accountable for the direct delivery of national priorities at a higher level.
4.2. Resource Utilisation	Demonstrates understanding of the process for effective resource utilisation.	Demonstrates ability to effectively manage resources.	Demonstrates ability to reconfigure the use of available resources.
4.3. Standards of Practice	Demonstrates understanding of, and conforms to, relevant standards of practice.	Develops and monitors standards of practice at team level.	Develops and monitors standards of practice at a higher level.
4.4. Managing Risk	Demonstrates ability to identify and resolve risk management issues according to policy/protocol.	Develops risk management policies/protocols for the team and/or organisation, including identifying and resolving new risk management issues.	Develops risk management policies/procedures at a higher level, including identifying and resolving new risk management issues.
4.5. Managing Performance	Follows professional and organisational policies/procedures relating to performance management. Refers appropriately to colleagues for guidance.	Contributes to performance management for a team.	Contributes to performance management at a higher level.
4.6. Project Management	Demonstrates understanding of the principles of project management.	Demonstrates ability to successfully manage a project at team and/or organisation level.	Demonstrates ability to successfully manage a project at a higher level.
4.7. Managing Change	Demonstrates understanding of the principles of change management.	Demonstrates ability to manage a process of change for the team and/or organisation.	Demonstrates ability to promote, initiate and/or lead a process of change at a higher level.
4.8. Strategic Planning	Demonstrates ability to plan and deliver the desired outcomes according to the proposed strategy.	Demonstrates ability to plan and deliver the desired outcomes, while adapting the planning and strategy based on the changes in internal and external environment.	Demonstrates long term and sector wide strategic planning and understanding of organisational politics changes in the external environment.
4.9. Working Across Boundaries (profession/sector/area)	Demonstrates ability to extend boundaries of service delivery within the team.	Demonstrates ability to extend the boundaries of the service delivery across more than one team.	Demonstrates the value of extending service delivery across boundaries in the external environment.

Clusters and competencies	Advanced Stage 1	Advanced Stage 2	Advanced Stage 3
5. Education, Training and Development Supports the education, training & development of self and others. Promotes a learning culture within the organisation			
5.1. Role Model	Understands and demonstrates the characteristics of a role model to members in the team and/or organisation.	Demonstrates the characteristics of an effective role model at a higher level.	Is able to develop effective role model behaviour in others.
5.2. Mentorship	Demonstrates understanding of the mentorship process.	Demonstrates ability to effectively mentor others within the team and/or organisation.	Demonstrates ability to effectively mentor outside the team and/or organisation.
5.3. Conducting Education & Training	Demonstrates ability to deliver teaching and feedback effectively according to a learning plan with supervision from a more experienced colleague.	Demonstrates ability to evaluate the learning performance and learning needs of others. Demonstrates ability to plan a series of effective learning experiences for others.	Demonstrates ability to design and manage a course of study, with appropriate use of teaching, learning and study methods.
5.4. Professional Development	Demonstrates self-development through professional development activity.	Facilitates the professional development of others.	Shapes and contributes to the professional development strategy.
5.5. Links Practice and Education	Participates in the delivery of didactic/experiential education and training.	Participates in structured or formal didactic/experiential education and training.	Shapes, contributes to or is accountable for the creation or development of higher education qualification(s).
5.6. Educational Policy	Demonstrates an understanding of current educational policies relevant to workforce development.	Demonstrates ability to interpret national policy in order to design strategic approaches for local workforce education planning and development.	Shapes and contributes to national education and workforce planning and development policy.

Clusters and competencies	Advanced Stage 1	Advanced Stage 2	Advanced Stage 3
6. Research and Evaluation Uses research to deliver effective practice. Identifies and undertakes research to inform practice			
6.1. Critical Evaluation	Demonstrates ability to critically evaluate and review evidence.	Demonstrates application of critical evaluation skills.	Is recognised as a peer reviewer undertaking critical evaluation activities.
6.2. Identifies Gaps in The Evidence Base	Demonstrates ability to identify where there is a gap in the evidence base to support practice.	Demonstrates ability to formulate appropriate and rigorous research questions.	Demonstrates ability to design a successful strategy to address research questions.
6.3. Develops and Evaluates Research Protocols	Demonstrates ability to describe the core features of research protocols.	Demonstrates ability to design a rigorous protocol to address previously formulated research questions.	Demonstrates active involvement in the critical review of research protocols.
6.4. Creates Evidence	Demonstrates ability to generate evidence suitable for presentation at local level.	Demonstrates ability to generate new evidence suitable for presentation at research or professional symposium.	Demonstrates authorship of primary evidence and outcomes in peer reviewed media.
6.5. Applies Research Evidence into Working Practice	Demonstrates ability to apply research evidence into own practice.	Demonstrates ability to apply research and evidence-based practice within the team and/or organisation.	Is able to use research evidence to shape policy/procedure at an organisational and/or local, national, regional and international level.
6.6. Supervises Others Undertaking Research	Demonstrates understanding of the principles of research governance.	Is able to contribute to research supervision in collaboration with research experts.	Is a research project supervisor for postgraduate students.
6.7. Establishes Research Partnerships	Demonstrates ability to work as a member of the research team.	Demonstrates ability to work with others across professional boundaries to conduct research projects.	Demonstrates ability to show leadership within research teams concerning the conduct of research.

Part 4 Strategies for adopting and using the GADF

4.1 Guidance on implementation

The GADF is a tool aimed to support the pharmaceutical workforce – across all and any sector/field – to develop advanced practice and support career progression. The tool can also be used to assist countries in progressing advanced practice at the national level by developing national frameworks and support for the workforce. It offers opportunities for transnational collaboration to enhance learning opportunities between countries.

For individual practitioners, the GADF provides a set of developmental competencies that can be used to lead and support their own professional career learning and development. Practitioners identify areas that they may wish to develop across all the competency clusters, therefore, assisting in formulating a personal development plan to advance their practice.

Nationally, the GADF can be used as a basis for a professional recognition system to signpost and mark the achievement of advanced practice through a credible, valid and nationally consistent process of peer assessment. Formal recognition of practitioners can provide assurance to the public, embedding trust in the role of pharmacists in Universal Health Care (UHC) delivery. By creating a professional recognition system, countries can systematically develop robust and strategic education and training infrastructures for their practitioners (33, 34).

It is recommended to use the GADF in a synchronous way with the GbCF in order to ensure a strategically continuous developmental career map. Early practitioners should be guided by the GbCF, then by the GADF as their practice advances. The complete set of developmental frameworks, together with other FIP mechanisms and policy developments, is a basis for the FIP Workforce Transformation Programme (WTP).

4.2 Country experiences

There are two categories of countries described in this section to provide a full range of cross-regional experiences as examples. The first category is for countries which have already adopted, adapted and are implementing the framework including Australia, Singapore and the United Kingdom, and the second category is for countries that are in the process of developing their national frameworks including Indonesia and Jordan.

4.2.1 Countries that have adopted, adapted and implemented

Australia

Authors

Ian Coombes, Director of Pharmacy, Royal Brisbane and Women's Hospital; Chair Advancing practice Advisory Body, Australia; **Kirsten Galbraith**, Director, Experiential Development and Graduate Education (EDGE), Monash University, Australia

Adoption and adaptation background

This work originated in the state of Queensland during the establishment of the Safe Medication Practice Unit (SMPU), which was funded as a result of the Quality in Australian Health Care Study (35). SMPU had system and workforce development arms. Simultaneously the Australian Health Ministers in 2003 agreed that all patients should have a pharmaceutical review as part of their care, and there was an appetite for all healthcare professionals to consider the need to demonstrate competency.

Also, at this time a number of designated areas of speciality practice were developing (and were funded) such as heart failure, emergency, paediatric and cancer care pharmacists. A range of Specialty Interest Groups across Australia, often with contacts in the United Kingdom, started looking at what would be a useful curriculum, road map and developmental framework.

SMPU and CoDEG had a pre-existing agreement for the use of the CoDEG General Level Framework (GLF), and this was extended, enabling the adoption of the CoDEG Advanced and Consultant Level Framework (ACLF) (23, 27, 30).

Overview of development process

At a national level, a group representing all pharmacy bodies in Australia (the Pharmacy Practitioner Development Committee) collaborated to agree on an advanced competency framework which was initially separate to the national core competencies for pharmacists. This Advanced Pharmacy Practice Framework (APPF) (36) described generic domains including leadership, management, education, evaluation and research, collaboration and professional practice, mirroring the domains in the CoDEG ACLF. The Queensland experience of the CoDEG ACLF was heavily drawn upon during this process.

The APPF was designated agnostic to area of practice, with individualisation according to area of speciality. The Society of Hospital Pharmacists Australia (SHPA), and the Clinical Oncology Society of Australia worked with medical colleagues to further develop the CoDEG ACLF, and the APPF into tools specifically focused on areas of speciality such as palliative care, medicines information, infectious diseases and critical care.

Framework implementation

The APPF was used by the Australian Pharmacy Council throughout 2015 in a pilot process involving evaluation of submitted portfolios of context and impact statements for each advanced competency, accompanied by supporting evidence. Trained evaluators provided feedback to candidates and awarded the credential AdvPractPharm to those pharmacists who achieved stage 3: Advanced. The process was steered by an advisory group including a representative from the UK, who had experience with the use of a similar framework.

In 2016 the APPF was incorporated into the latest version of the National Competency Standards Framework for Pharmacists in Australia (14). This framework now clearly outlines the journey of increasing performance for each domain and competency, as pharmacists develop from student to intern to foundation level and more advanced practitioner.

In 2017, a new group "Advancing Practice" (37) took responsibility for credentialing of more advanced practice in Australia, using the latest competency standards, and revised advanced competencies, as the basis for evaluation.

Whilst the credentialing process continues, the use of the advanced practice framework as a "curricula or road map" has also continued, albeit by informal collaborations of pharmacists working in designated areas. A National Advanced Training residency has been proposed by SHPA, but it is unclear how this will be driven, how practitioners will be assessed and how it will integrate into the national advancing practice credentialing program.

The Pharmaceutical Society of Australia has recently released its Pharmacists in 2023 (38) and Roles and Remuneration (39) reports. These reports describe a continuum of practice, with progression from general level practice to more advanced levels. For the first time, a clear link has been made between remuneration, and level of advanced practice as described by the competency standards. This

progression is already built into career pathways in many hospital settings.

Impact of framework implementation

Australia has, intermittently, had a formal process for the recognition of pharmacists' stages of advancement when their portfolio has been evaluated against the National competency framework for over 5 years (40, 41).

The continuum of pharmacist workforce development is now mapped against the national competency framework from undergraduate student, through 48 week internship and formal structured Foundation Residency training before progressing into further "advanced roles" (42).

The process of formal recognition is increasingly integrated into the desirable selection criteria for the more senior workforce. Especially in the hospital workforce, positions that require levels of leadership, management, understanding and demonstrable impact in clinical practice, as well as education and training and service evaluation increasingly, will state "Evidence of Credentialing at stage 1, 2 or above of advanced practice" depending on the level of impact and experience that is required.

Recognition by Government

Some government health services, such as Queensland Health workforce, have a formal grading structure that includes Level 5 positions that are termed (as part of the industrial agreement) 'Advanced pharmacist'. This is a position often as a senior team leader or highly advanced practitioner who are required to perform at a high standard of leadership, clinical practice, management and understand and facilitate and provide education and service evaluation and research. The structure was developed using the UK NHS Knowledge and Skills Framework and Advanced and Consultant Level framework as part of a Collaboration with the Competency Development and Evaluation Group of UK (8). By default, the increasing expectation and realisation that team leaders and advanced specialists require an evidence-based demonstration, by the process of an independent evaluation of their impact and context of that impact as described in their portfolio also results in increased remuneration.

Recognition by Profession

The impact on members of the workforce regarding the importance to practitioners, has been evaluated by research practitioners such as Stacey who surveyed a sample of the Australian hospital workforce regarding their perceptions of a formalised development and recognition process for advancing pharmacists. All participants felt that a system of credentialing or formal recognition of advanced practice was valuable to individuals and the profession but should be optional. It should also be clear whether advanced practice implies additional responsibilities (such as with nurse practitioners) or specific roles (such as clinician versus manager) (43). Representative quotes include:

> *"Needs to be some kind of qualification or recognition that the wider environment or community understands." (G2P4)*

> *"It would be nice to think…that we could go out and say that all level 3 positions would be accredited consultant paediatric pharmacists." (G3P11)*

> *"Remembering back to being a young pharmacist, how important it is to be inspired by people that you perceived advanced practitioners. I think that is really important to have something to achieve." (G4P3)*

> *"It is around rewarding and recognizing people…Gives some credence, some credibility, and some recognition of people's practice… it gives you something to aspire to and work towards." (G4P6)*

> *"I think that advanced level framework really highlights that you have all these different areas and what you should know. I can say to myself 'I don't know that, but I can fill in that gap' and progress to that advanced level. Without that, I might think I know everything. Or I will stop looking." (G3P6)*

Recognition by other health professionals

As the scope of pharmacists' practice increases, other members of the health care team are seeking assurance that pharmacists employed in higher-level roles are capable of providing more "advanced" levels of clinical reasoning and decision making above that expected of general or foundation level staff. New areas of responsibility, for example in primary care with the development of clinical pharmacist roles in general practitioner clinics, and in hospital emergency departments and intensive care units, require pharmacists to take greater responsibility for leadership, management, evaluation and research of the medication management system as well as education of the multidisciplinary workforce (28, 42).

Whilst healthcare in Australia has begun to accept and expect a formal process for recognition of more advanced pharmacy practice, the final process for a wider profession acknowledgement still requires broader implementation. Uptake of the formalised development and portfolio-based demonstration of pharmacists' wider impact will be crucial to embed advancing practice across the breadth and depth of the profession.

Link to the Framework

National Competency Standards Framework for Pharmacists in Australia (14).

Resources and bibliography

a. Jackson S, Martin G, Bergin J, Clark B, Stupans I, Yeates G, Nissen L, Marty S, Gysslink P, Matthews A, Kirsa S. An Advanced Pharmacy Practice Framework for Australia. Pharmacy. 2015 Jun 9;3(2):13-26.

b. Jackson S, Martin G, Bergin J, Clark B, Stupans I, Yeates G, Nissen L, Marty S, Gysslink P, Matthews A, Kirsa S. Understanding advanced and extended professional practice. Australian Pharmacist. 2015:76-9.

c. Coombes I, Kirsa SW, Dowling HV, Galbraith K, Duggan C, Bates I. Advancing pharmacy practice in Australia: the importance of national and global partnerships. Journal of Pharmacy Practice and Research. 2012 Dec 1;42(4):261-3.

d. Jackson S et al. Advanced practice: a survey of current perspectives of Australian pharmacists. Journal of Pharmacy Practice and Research 2015;45:186-92

e. Galbraith K, Ancora Imparo. Journal of Pharmacy Practice and Research 2013;43(3):175-6

f. Coombes I, Bates I, Duggan C, Galbraith K. Developing and Recognising Advanced Practitioners in Australia: An Opportunity for a Maturing Profession? Journal of Pharmacy Practice and Research 2011;41(1):17-19

g. O'Leary K, Kirsa S, Dowling H, Allinson Y, Coombes I. A Professional Development Framework for Pharmacists. Journal of Pharmacy Practice and Research 2012;42(4):259-60

h. Galbraith K, Coombes I, Matthews A, Rowett D, Bader L, Bates I. Advanced pharmacy practice: aligning national action with global targets. Journal of Pharmacy Practice and Research 2017;47:131-5

i. Gellatly R, Galbraith K. Recognition of Advanced Practice Pharmacists in Australia and Beyond - Considerations for Canadian Practitioners. Canadian Journal of Hospital Pharmacy. 2020; 73 (3): 225-231

Singapore

Authors

Dr Camilla Wong, Ministry of Health, Singapore.

Adoption and adaptation background

The Ministry of Health Singapore developed the pharmacist career pathway framework in 2009. To facilitate implementation of the career pathway framework, there was a need to develop a competency framework to map out the level of competency that would be required of pharmacists at different levels of seniority and expertise.

The competency domains in the CoDEG ALF was found to be aligned with pharmacists' scope of practice in Singapore and was successfully introduced to pharmacists in one of the tertiary hospitals. Hence, the decision for the competency framework for pharmacists in advanced practice (APF) to be adapted from the CODEG ALF.

Overview of development process

In 2010, Chief Pharmacist's Office (CPO) of the Ministry of Health collaborated with public healthcare institutions to develop competency standards for pharmacists in advanced practice (APF). The competency standards from CODEG ALF was adapted for this purpose. A validation study was conducted in 2014 and the results indicated that the competency framework demonstrated good reliability and validity for measuring competency of advanced pharmacy practitioners (32). The APF was introduced in 2016 to healthcare institutions.

Framework implementation

The APF was implemented as a developmental tool for pharmacists to advance systematically across 6 competency domains towards 6 key roles. From 2016 to 2017, APF roadshows were conducted at healthcare institutions to introduce the framework to pharmacists across sectors. After significant development and professional engagement, the APF guidebook was published in 2017 for pharmacists to actively use the framework in practice (44).

In 2018, a review of training roadmaps across sectors to understand training gaps and emerging training needs for advanced practitioners was conducted. Portfolio training workshops were commissioned by the Ministry of Health to Tan Tock Seng Hospital. Since then, 18 portfolio training workshops involving 392 senior pharmacists were conducted and a portfolio building toolkit was developed to strengthen the communication of the vision and to promote adoption of the framework (45).

There were regular engagements with pharmacy leaders and pharmacists for sharing of experience on progress of APF implementation. In 2019, the APF implementation was reviewed with visiting expert Professor Michael Dooley (Alfred Health/Monash University, Australia). While various frameworks were in place to define competencies for pharmacists in Singapore, there was no formal adoption of a framework between entry level and advanced practice. To illustrate the competency continuum of pharmacists, the Development Framework for Pharmacists (DFP) was formed with the addition of foundation level competencies to the APF. The DFP was published in May 2020 (46).

Impact of framework implementation

The Advanced Practice Framework (APF) was first introduced in 2016 as a developmental tool to allow senior pharmacists to advance systematically.

At present, Singapore is gearing up for full implementation of the Development Framework for Pharmacists (2020). As such, the data on the social impact of the framework implementation are not ready for sharing.

Forward planning

Our future plans are to:

1. Continued use of DFP for development of training pathways for entry-level pharmacists to gear up for advanced practice;
2. Continued development of education and training infrastructures to enable the implementation of DFP at institutional level
3. Continued engagement with key stakeholders for monitoring of implementation plans and to ensure relevancy of competency standards for future pharmacy workforce.

Link to the Framework

Competency Standards for Pharmacists in Advanced Practice 2017 (44).

Resources and bibliography

a. Koh SK, Wong CML, Chan SC, Samarasekera D, Chan YH, Wong HC, Chew LSC. Developing and validating a national Advanced Pharmacy Practice Competency Framework for Singapore. Presented at the FIP World Congress 2018 in Glasgow. 2018

United Kingdom

Authors

Beth Ward, Head of Education, Royal Pharmaceutical Society, United Kingdom.

Adoption and adaptation background

In 2011, the Modernising Pharmacy Careers Programme was established in order to undertake a major review and restructure of the way that pharmacist education and training is delivered and funded in England, to allow patients, the public and the NHS to benefit more completely from the unique contribution that pharmacists – as medicines experts – make to health, wellbeing and patient safety. A key workstream of this programme centred around the need for a review of development frameworks that were currently in use - the ALF and the GLF.

Overview of development process

Independent evaluation of competency frameworks within pharmacy education in the UK (ALF and GLF) was undertaken, funded by the Department of Health. Recommendations were made to adapt and adopt across all areas of pharmacy practice. The Royal Pharmaceutical Society established an expert group to review the existing ACLF in order to establish a core for practitioner development within the RPS Faculty. The work was tied to providing pragmatic evidence for areas of expertise (mapped to professional curricula) that reflect practice across all sectors and scope of practice, including leadership and science.

Framework implementation

The ALF was used as the basis for Department of Health recommendations for the development of the new NHS consultant pharmacist post guidelines and was renamed as the more widely known ACLF (see DoH "Guidance for the development of NHS consultant pharmacist posts"). The subsequent Advanced Pharmacy Framework has been used as the basis of the RPS Faculty (advanced practice professional development and recognition programme) and updated Consultant Credentialing pathways in England, Scotland and Wales. The APF is also used by Universities and training providers across the UK in the development of E&T programmes aimed at developing and advancing the pharmaceutical workforce.

Impact of framework implementation

The framework was used to underpin the original process for the recognition of Consultant Pharmacist posts by the Department of Health in England and Wales. From September 2020, the Advanced Pharmacy Framework will now underpin a formal credentialing process for Consultant Pharmacists in England and Wales also. The Consultant Pharmacist title is one that is recognised across professions within the UK.

Forward planning

Our future plan for the use of the framework are:

1. Continued use as the basis of advanced and consultant credentialing processes.
2. Continued use as the basis of professional development and education programmes for the pharmacy workforce.

Link to the Framework

The RPS Advanced Pharmacy Framework (APF) (47)

Resources and bibliography

a. Kopelman P, Bates I, Ward B, Duggan C. The RPS Roadmap to Advanced Practice. Royal Pharmaceutical Society. 2016.

b. Duggan C. RPS Faculty: development opportunities and evidence of progression. The Pharmaceutical Journal. 2013

4.2.2 Countries that are currently adopting & adapting the framework

Indonesia

Authors

Roy Himawan, IAI-FIP WTP National Professional Officer Chair, Indonesia; **Desak Ernawati**, IAI-FIP WTP National Professional Officer Vice Chair, Indonesia; **Rasta Naya**, IAI-FIP WTP National Professional Officer Secretary, Indonesia; **Franciscus Kristianto**, IAI-FIP WTP National Professional Officer Vice Chair, Indonesia; **Sherly Meilianti**, FIP Research Analysis of Workforce Transformation Programme, Indonesia.

Adoption and adaptation background

From the preliminary study conducted by the Indonesian Pharmacists Association (IAI), we found that there was a need to develop advanced pharmacy practice from the perspectives of Indonesian pharmacists. It was found that pharmacists need to have a clearer career pathway and to have supporting ecosystems to motivate themselves throughout their career. We searched the literature on developing a framework for advanced practice. But we could not find much literature on advanced practice framework. The most prominent publication about an advanced practice that we found was from the FIP report in 2015 about Advanced Practice and specialisation. From this report, we knew that some countries developed their advanced framework based on CoDEG ACLF. Then we decided to adopt and adapt CoDEG ACLF as it has been used widely in other countries around the world as a starting point.

Overview of development process

The adoption and adaptation of the framework consisted of two phases. The first phase was the translation phase using forward and backward approach. Two pharmacists translated the framework into Bahasa Indonesia, and we conducted a discussion between our translators (reconciliation phase), to discuss which Indonesian version of the framework we used. The reconciliation phase was conducted by using the approach from Koller et al. (2012) (48). Following that, the agreed Indonesian version of the framework was translated to the English language by another pharmacist. The back-translated version was compared to the original translation by conducting a discussion with a native English speaker who is the expert developing the original framework. There was no major issue found; however, some cultural context raised during the discussion; for example, terminology of governance was not available in Indonesia.

The second phase after the translation was the adoption and adaptation of the Indonesian version of the framework. We did a series of consensus panel discussions to identify issues and concepts related to the clarity of the adopted and adapted version of CoDEG ACLF. We also aligned this framework with the previous evidence and policy that we have, e.g. Indonesia Competency Standard, career progression for governmental employee, and credentialing system plan for industry and hospital setting in Indonesia.

We acknowledged that member engagement is one of the fundamental principles for producing a framework. For everything that we have planned and conducted, we always ensure that members (Indonesian pharmacists) are engaged and informed either through social media or through the official website of Indonesian Pharmacists Association (IAI). We conducted a nation-wide survey to ask Indonesian pharmacists to use the framework to assess their current stage in their practice (framework was converted into an online questionnaire). We distributed the survey; within two months, we received over six thousand pharmacists involved in the study showing interest from Indonesian pharmacists to use this framework. An initial analysis of the survey results added more validity of the framework where the framework is able to differentiate the career stages of Indonesian pharmacists.

Implementation and forward planning

Our next step is to incorporate all feedback from the members to establish the updated version of Indonesian framework. Then, we are planning to develop a professional recognition system by using this framework as a tool for advancement. We are also planning to do some intervention related to provision of education and training and we would like to see how this affect in the future, e.g. 3 years' time.

Jordan

Authors

Saja Naher, JPA-FIP WTP National Professional Officer, Jordan; **Lina Bader**, FIP Lead for Workforce Transformation and Development, Jordan.

Adoption and adaptation background

The Jordanian Pharmacist's Association (JPA), the national professional body for pharmacists, has entered a formal partnership with the FIP through the FIP Workforce Transformation Programme. The FIP-JPA WTP programme of work aims to identify workforce development needs in Jordan whilst also working on the development of an advanced practice framework for Jordan, which was identified as a need in the absence of any advanced workforce development and professional recognition system.

Overview of development process

The JPA is currently working on planning the adoption and adaption of GADF Version Zero, informed by the progress made & methods used in Indonesia. The steps generally will be as follows:

1. Version Zero has been translated to Arabic, and the translation is undergoing validation.
2. Validation & review of the framework through a series of consensus panel discussions.
3. A nation-wide survey with JPA members (registered pharmacists) to identify issues and concepts related to clarity.
4. The first version of the National Advanced Development Framework for Jordan.

Implementation and forward planning

For sustainable uptake, a phased nation-wide implementation is planned, including the piloting of the framework similar to what has been done in Australia. Integration of this plan with CPD strategies is essential.

4.3 Institutional experiences

The advanced framework has also been adopted and adapted at the institutional level. Below are some institutional examples from Australia, United Kingdom and Singapore.

Australia

Author

Diana Sandulache, Alfred Health, Australia

Adoption and adaptation background

Our institution decided to adopt the Advanced Pharmacy Practice Framework (APPF) (36) quite a few years ago, driven by ability of the structure to support education and development of staff. Historically, post internship there was lack of predictability and structure in the Pharmacist path – and opportunities were driven by circumstance.

Overview of adoption and adaptation process

The adoption of the APPF started with implementation of an Alfred Health/Monash University Clinical Pharmacy Fellowship, which supported the development of specialist skills in a particular discipline. The Fellowship structure referenced the APPF and assessment forms were developed and used during the program. Additionally, a number of staff members in the department were involved in the Australian Pharmacy Council (APC) Advancing Practice pilot in 2015, submitting their portfolios for evaluation. Over the last few years, the APPF has become more integrated in the department, driven in a big part by the structured training programs such as the Foundation Residency.

Implementation of the APPF

We implemented the APPF in multiple ways:

1. Part of structured training programs, such as the Foundation Residency and Advanced Residency;
2. Development of developmental and assessment tools based on the APPF;
3. Referencing the APPF in Position Descriptions and aligning it to career progression;
4. Requesting candidates submit portfolios as part of applications for job advertisements.

Forward planning

The plan is to embed this as part of development for all our practitioners, not just those in structured training programs. The APPF should then be referred to when developing education sessions, completing performance reviews, providing feedback, etc. The goal is to have a structured and predictable career path for all our Pharmacy staff in our institution, which supports development of competencies and skills, whilst providing the best outcome to our patients. The APPF provides the backbone to that path.

United Kingdom

Author

Alison Innes, Programme Lead, UCL School of Pharmacy, London, United Kingdom

Adoption and adaptation background

A clear workforce need was emerging for formalized development of advanced pharmaceutical care skills and competences. Initially this was being driven by the acute (hospital) sector with a recognition that there should be clear and identified pathways for further practitioner advancement following on from initial post-registration foundation training. The practitioner question was about "where do I go next…" after initial foundation education and training of early year pharmacists. One route would have been to progress through a 'specialisation' approach, in other words subject, specialism or topic-driven continued advancement. However, a prevailing view emerged that although specialist Education and Training (E&T) directions are useful, in order to support a wider scope of practice development having a generic framework for pharmaceutical care advancement would have greater applicability and greater flexibility for workforce development. The team originally built on the CoDEG ACLF framework, then the revised ALF, which now fits well against the current global framework launched by FIP.

Overview of adoption and adaptation process

We use the original ALF and have now retrofitted this to the global FIP framework with minimal disruption of education and learning provisions for advancement. The original program design maps directly to the competency clusters, with the education and learning delivery being focused on enhancing essential advanced generic skills in addition to the workplace-based development of the individual practitioner.

Implementation of the framework

We have used a joint portfolio and assignment-based approach. The portfolio maps directly to the ALF and candidates undertaking the programme continuously collect workplace evidence of continuous learning and development which are then linked to the ALF competency clusters. In addition, the program provides access to both focused resources and theoretical underpinning (for example, literature and theory on leadership development) and has practitioner-based assignments linked to this design. Practitioners develop both a personal portfolio aligned to the ALF in addition to applying underpinning theory for specific cluster areas of the ALF. We have found this to be a highly effective and focused developmental model which includes the use of subject experts.

Forward planning

We will be more formally referencing the global ALF and are currently developing further online offerings for global pharmaceutical foundational training which will be using a combination of the FIP global ALF/GbCF and also the recently launched FIP Developmental Goals. The aim is to widen international access to advanced level education and training, especially for those practitioners working in primary health care settings.

4.4 Individual practitioner experiences

This section describes some examples of individual experiences on using the advanced framework in their country.

Australia

About the author

Kate Ziser is a Team Leader Hospital Pharmacist in a 700-bed tertiary teaching hospital (Royal North Shore Hospital), and she is currently completing her Advanced Training Residency in Cardiology. She is also the Course Coordinator of a postgraduate pharmacy elective course titled Diabetes Mellitus for those completing their Graduate Certificate in Pharmacy Practice through the University of Sydney.

How did you find out about the framework?

I heard about the framework through the national professional organisation called The Society of Hospital Pharmacists of Australia (SHPA), as well as from peers completing their postgraduate study who were required to produce a portfolio of work mapped to the Advanced Pharmacy Practice Framework (APPF).

The APPF detailed the 29 enabling competencies that I needed to provide evidence to show I was at a transitional, consolidation or advanced level in my chosen area of education and training. Each competency was graded by an experienced education and training pharmacist. I am currently completing my Master of Clinical Pharmacy (Monash University) and being credentialed at level 1 (transitional) or above in each of the 29 enabling standards allowed me to shorten my study.

In what context do you use the framework?

The experience of collating evidence detailing my career was invaluable for several reasons. It allowed me to see my growth over time, it facilitated self-reflection against each enabling competency, it allowed me to target specific areas for growth, and importantly it made me critical of how I will collate evidence that demonstrates my impact on patient care moving forward. It has given me the required knowledge, skills and confidence to teach others in my workplace how to go through the process themselves. Finally, it has provided career development for pharmacists who I manage and to benchmark pharmacists to undertake certain 'advanced' practitioner roles such as doctor/pharmacist partnered prescribing.

What additional tools and resources would assist your engagement with the framework?

Some considerations for how to increase engagement with the framework could include:

1. Engagement with medical specialty organisations and conferences
   This would be instead of engaging within the general pharmacy events and society. Some specialties have organised education at conferences for pharmacists as well as nurses and training medical doctors. The SHPA already offers specialty practice groups that allow for engagement and collaboration between pharmacists within a specialty area. Perhaps in future, the APPF could be based out of the specialty rather than a general pharmacy society to allow for improved professional and career development.
2. Templates
   a. Shared example portfolios for people on similar career paths.
   b. Example "templates", "tasks" or "prerequisites" that would enable a pharmacist to envision the activities that would support the framework statements.
   c. Providing an online modifiable portfolio template where one could build their own portfolio.
3. Workshop
   An external organisation could conduct some in-workplace face-to-face mentoring or workshops for small groups of pharmacists.
4. Mentor
   Mentors are an optional resource that the SHPA facilitates. I found this connection extremely useful, at first to provide an overview of their process going through the credentialing process, and also at the end of the process when I had challenges interpreting an enabling competency or when I was debating which piece of evidence to use. A mentor should be automatically set up for each person and ideally should be

someone who has gone through the Advanced Practice process in the same specialty.

Using the framework for professional and career development

The framework sets competency standards to aim towards and offers insight into the potential clinical activities required to fulfil these competencies. I created a small group that I mentor through the process of creating a portfolio of work that is mapped to the APPF. When teaching at the university, I find that most junior pharmacists are not familiar with APPF. I use this opportunity to teach them about the structure and how to think about collating evidence in future that is mapped to the competencies and demonstrates their impact on patient care.

In future, it would be ideal to use the framework when applying for hospital pharmacy positions or when providing job descriptions for particular roles. The framework could be used for hospital pharmacist re-grading purposes or for clinical service planning and rostering. As mentioned previously, the framework could be more widely used by a pharmacist to prove capability to undertake certain 'advanced' pharmacist roles e.g prescribing or to provide a benchmark for pharmacists wishing to undertake these roles.

What are the barriers to utilising the framework?

Engaging with the framework is not 'mandated' in all workplaces. For example, it is not a 'requirement' for particular jobs/positions/roles, and not asked about in interviews or specified in position descriptions/requirements. The re-grading system in my state (NSW) does not align in any way with the framework. There is a low uptake by senior pharmacists and management staff in my workplace and across the state, however other states like Queensland and Victoria have increased engagement.

It is a time-consuming process and we are all time poor! An online portal/template where one could easily build their portfolio and upload all evidence along with online guidance to verify one's evidence matches the framework and levels of advanced competency correctly would be helpful.

When speaking about the framework with peers a common barrier was that the framework fulfils the "what" but not the "how" and that is what's challenging.

It can be isolating working within a specialty of pharmacy, particularly if there are not many pharmacists in Australia in that specialty, which pushes towards collaboration with other health professions.

Once credentialed at stage 2, I received immediate benefit in the form of the pathway into my Master of Clinical Pharmacy degree along with the personal growth. However, there is no clear path for how this credentialing will provide any additional advantages in the workforce or additional roles, responsibilities or renumeration.

Additional comments

The formal creation of pharmacist Advanced Practitioners is a challenging path due to many factors. Some include how to cater for community pharmacists and hospital pharmacists in one set of standards, how to cater for state variations as well as rural verses metropolitan areas, not to mention the differences among specialty areas. However, the task is essential as the workforce needs a formal path towards career progression and development.

Singapore

1. About the author of this case study

Ms Koh Sei Keng is a pharmacist working in a tertiary hospital.

How did you find out about the framework?

In my institution, both General Level Framework (GLF) and Advance Level Framework (ALF) were used as a staff developmental tool in 2007, meanwhile, the CODEG ALF was adapted as the APF in Singapore in 2009. Our journey to adopt and adapt the GLF and ALF is described in the narrative paper (49).It was envisioned that the GLF would be used to support the development of post-registration, general level pharmacists for the first three to four years of their career, whereas the ALF would be used for advanced level practicing pharmacists after attaining competencies specified in the GLF.

The use of competency frameworks in SGH have also spread to the Allied Health Professions.

In what context do you use the framework?

The GLF and APF are useful to identify areas of improvement and learning experiences for developing competencies. I used the APF to acquire skillsets for self-directed learning, identification of developmental gaps and learning experiences to bridge the gaps. With this skill set, I can chart my journey based on my job scope.

What additional tools and resources would assist your engagement with the framework?

Some additional tools and resources are required to engage with the framework, such as:

1. Faculty Development
   Faculty development for portfolio building and assessment, providing feedback, coaching would be helpful so that the faculty/trainer/appraisers are better equipped to guide the development of staff.
2. A Coach or Mentor
   A coach or mentor to provide feedback and facilitate development when APF and GLF are used as developmental tools
3. A Training Roadmap
   A training roadmap which allows one to identify the courses required to acquire the skillset for that performance level.

Using the framework for professional and career development

I used the framework to identify areas for improvement and learning experience for growth as well as promoting coaching and mentoring mindset.

What are the barriers to utilising the framework?

There are some barriers to utilising the framework. First, gathering evidences for portfolio and comprehending the competency standards, even though it gets easier as one becomes more familiar with it. Second, finding the motivating factors that will prompt one to use the framework, such as value-add to career development. Third, time commitment to build and to assess portfolio. Forth, the potential negative impact on staff morale due to inter-rater variability and limited number of vacancies for promotion even if one could attain the competencies required for the next job level. Finally, the lack of specific performance indicators for measuring impact and success of the implementation of this framework.

2. About the author of this case study

Ms Lim Hong Yee is a pharmacist working in a hospital.

How did you find out about the framework?

I found out this framework from the official roadshows carried out by Chief Pharmacist Office, CPO at Ministry of Health (MOH) and also from the APF competency guidelines rolled out in 2016.

In what context do you use the framework?

I use the framework for career, personal development and all-encompassing including leadership, collaboration, education, research.

What additional tools and resources would assist your engagement with the framework?

Portfolio building, assessment, evidence collection, reflective writing skills, trust, and peer review learning are additional tools which will assist my engagement with this framework.

Using the framework for professional and career development

The competency standards in the framework describe the level of competence required for pharmacists to reflect on their practice, to identify needs for continuous professional development and to acquire new competencies to advance their practice systematically.

For employers, the recognition of pharmacists as advanced practitioners enables them to have evidence of enhanced capability. Overall, the movement towards defining advanced practice in pharmacy represents progression of the pharmacy workforce.

What are the barriers to utilising the framework?

Time commitment to collect evidence, ability to carry out reflective writing has great inter-subject variability. Also, the value of this framework for senior practitioners in their fields is unclear. There is always a question of what happens when one attains expert for all domains.

Any other comments

Challenges remain with gaining buy-in from whole workforce and how to integrate APF into mandatory CPD structures. Highlighting incentives and motivations will be helpful towards the ongoing challenges of self-learning and self-development processes. Would the APF remain useful and viable as a developmental tool for pharmacists who are contented with their level of advancement? It is also important to establish other integrated ways for advancement of practitioners who choose not to use the APF.

3. About the author of this case study

Dr Koh Tsingyi is a pharmacist working in an inpatient pharmacy in a hospital in Singapore.

How did you find out about the framework?

The Singapore Chief Pharmacist Office conducted several engagement sessions and portfolio training workshops to train ground users on how to use and apply the APF.

In what context do you use the framework?

The framework is used both as a tool to track my progress and achievements for the year and also as a career development tool. The framework allows me to identify specific domain areas which need attention and allows me to develop my workplan for the year with these domain areas in mind.

What additional tools and resources would assist your engagement with the framework?

Engagement with the younger workforce early in their career will be beneficial as it will expose them early on in their career the concept for the advanced practice framework and incorporate it into their career planning decisions.

Using the framework for professional and career development

The current framework has been mapped to the job grades of pharmacists at the National University Hospital. The pharmacists practicing at a particular job grade is expected to achieve a certain competency level for a particular domain before they are considered ready for the next job grade.

The framework also allows management to identify common deficiencies among staff and develop continuing education programs targeted at these common deficiency areas

What are the barriers to utilising the framework?

It can be time consuming and intensive to assess each domain individually for each pharmacist and is harder to implement in areas where the staffing structure is very lean and the organizational chart is flat.

Any other comments

The implementation of the APF should be consistent throughout all the institutions within the nation so it can serve as a practice standard for pharmacists across the nation.

4. About the author of this case study

Dr Cheryl Tan is a pharmacist working in Primary care (NHG Pharmacy, polyclinics) in Singapore.

How did you find out about the framework?

Roadshow conducted by Ministry of Health and portfolio training workshops by Tan Tock Seng Hospital (TTSH).

In what context do you use the framework?

I used this framework for self-development and learning, to identify training needs and enable individual career development. However, in my institution the framework would not be used as part of performance appraisal for staff.

What additional tools and resources would assist your engagement with the framework?

1. Workshops on portfolio building, portfolio assessment Existing training workshops run by TTSH to share their experience in implementation of the APF e.g. Portfolio-building, Portfolio-assessment.
2. Additional courses on reflective writing and how to gather effective evidences may be beneficial.
3. Resources to allows pharmacists to protect their time in reflecting and writing-up their portfolio will also help.

Using the framework for professional and career development

Individual pharmacists may utilize their own portfolio as a guide for career development and tracking of their progress.

Education Supervisors serve as mentors to each pharmacist to guide them through the framework, identify their areas of strengths and weaknesses and thereby enable addressing of developmental gaps as well as awareness of potential.

What are the barriers to utilising the framework?

1. Time commitment for reflection and providing evidences
2. Lack of education supervisors. The supervisors are required as a meaningful pairing of mentor to mentee to enable coaching in a “safe environment”, crucial to avoid pairing pharmacists with their reporting officers. The lack of suitable Education supervisors for all the involved pharmacists may lead to one supervisor having to mentor multiple pharmacists.
3. Lack of pharmacist’s motivation. Pharmacists may not see the immediate benefits/need of creating their portfolio hence may not be sufficiently motivated to embrace this framework. However, once it becomes a requirement for license renewal (by Singapore Pharmacy Council), pharmacists will then be motivated to build-up their portfolios.

United Kingdom

1. About the author of this case study

Ruby Chumber is a pharmacist working in a secondary care hospital.

How did you find out about the framework?

I found out the framework from the Royal Pharmaceutical Society (RPS).

In what context do you use the framework?

I use it to identify learning needs and to work towards standards which are recognised nationally.

What additional tools and resources would assist your engagement with the framework?

1. Regional workshops which link in with the framework would be aid development. For individuals who are not able to complete a full MSc it may be useful to have bite size sessions in their local area which can support specific standards.
2. Pharmacy workforce to support their staff and promote the RPS framework. Not recognised across the border, it is dependent upon the department and sector you work in. RPS framework is often championed by a small number of individuals in a specific department.
3. To consider include it in job plans for pharmacist roles.

Using the framework for professional and career development

I used the framework to look to support my application to attain a consultant pharmacist post and gain the needed skills to develop.

What are the barriers to utilising the framework?

There are some barriers to utilising the framework:

1. Regional variations in job roles.
   No time is allocated in individual job plans to support growth and development. If an individual aspires to complete this they will need to dedicate a large amount of time external to their job. This has been difficult given current resources are stretched.
2. The RPS framework has not actively promoted and not being supported by all pharmacy departments.
   Individuals who have a personal desire to attain faculty membership will need to invest their own time and look to scope opportunities which will support the RPS framework. Individuals who do not have faculty membership are not considered to be at an disadvantage. They are still offered the same job opportunities as individuals who have faculty membership.

Any other comments

The NHS pharmacy workforce need to recognise the RPS framework and ensure it is included in job plans to reduce job/ skill variations regionally.

2. About the author of this case study

Amandeep Setra is a senior pharmacist working in a secondary care hospital.

How did you find out about the framework?

I found out about the APF through communication from the Royal Pharmaceutical Society, when looking into the Faculty process. I then re-visited the framework during my MSc at University College London (UCL).

In what context do you use the framework?

I have found the framework extremely useful for reviewing the level I am performing at with regards to individual clusters and competencies. Additionally, it provides me with a focus on those areas that require further development.

What additional tools and resources would assist your engagement with the framework?

I found the APF quite self-explanatory although it would be useful to have:

1. Workshops for evidence review, or further explanation of specific competencies;
2. Peer review with an individual who has completed their portfolio for engagement and idea generation;
3. The APF recognised and utilised across workplaces for job roles;
4. The APF competencies to form part of re-validation processes for pharmacists.

Using the framework for professional and career development

I use the framework to identify areas and clusters where further evidence is required. I then use this to identify learning opportunities.

What are the barriers to utilising the framework?

There is a currently complete variation in how the APF is used nationally, so it would be good to have a recognised framework that was used by all pharmacists to benchmark against.

Part 5 Next Steps for the GADF Version 1

FIP, though the Workforce Development Hub, wishes to engage with a broader constituency of practitioners to use this framework as a mapping and development tool. FIP can assist with country level implementation and workforce advancement through the FIP Workforce Transformation Programme (WTP).

We invite all pharmacists and pharmaceutical scientists to use the GADF and share your story with us through our email: education@fip.org.

If you have any questions on this framework or any feedback, please do not hesitate to contact us through our email: education@fip.org. We hope this framework will have a benefit for educators, regulators and practitioners in all countries to advance their workforce.

Part 6 Summary and conclusions

As pharmacists' roles become more complex, with greater responsibilities and accountabilities for pharmaceutical care, clear pathways for the pharmaceutical workforce and professional recognition of practitioners becomes an important consideration. This handbook describes the development of FIP Global Advanced Development Framework version 1 which can be used as a tool for countries to advance their pharmaceutical workforce. This handbook also provides country case studies describing the adoption of the CoDEG Advanced and Consultant Level Framework, demonstrating country level examples of implementation of the framework. FIP Education Initiative will continue to progress this area to provide tools and guidance on how to use this framework to advance pharmaceutical workforce. The GADF will increase opportunities for transnational collaboration to enhance learning opportunities between countries.

The FIP has recently launched the Workforce Transformation Programme (WTP), following a decade of innovation, evidence, consensus & collaborative working, to set out milestones and outcomes for education & workforce development, and link directly with a global vision for transforming pharmacy. It is a global programme to support FIP's member organisations and stakeholders in leading the advancement of their national workforce. Importantly, it is designed to support countries in developing needs-based, national workforce development strategies, workforce planning and actions. The GADF supports the FIP Workforce Transformation Programme (WTP) as a tool which can be used by countries to advance their workforce.

Annexes

Annex 1 FIP Development Goal 4 (2020)

FIP DG 4 ELEMENTS Globally, we will have...	MECHANISMS
 Education and training infrastructures in place for the recognised advancement of the pharmaceutical workforce as a basis for enhancing patient care and health system deliverables.	• Need for a common and shared understanding of what is meant by 'specialisation' and 'advanced practice' in the context of scope of practice and the responsible use of medicines. • Ensure competency and capability of an advanced and expert pharmacist in all sectors (including specialisations extending to industry and administration settings) for greater optimisation of complex pharmaceutical patient care. This may now include prescribing roles within a recognised scope of practice. • Systematic use of professional recognition programmes, systems and frameworks as markers for advancement and specialisation across the workforce, including advanced pharmaceutical scientists.
 Sector-specific competency and development frameworks and infrastructures for advanced and/or specialised pharmacy practice and people-centred services.	• Develop practice infrastructures to support advanced practice and specialisation such as board certification, residency training, continuing professional development, proof of attainment of competencies. • Establish regulatory requirements for advanced practitioners and specialists in the appropriate settings, to ensure an adequate response to patient needs and optimal integrative care. • Establish pathways and plans for the development and delivery of advanced services. • Ensure mechanisms are in place so that pharmacists and pharmacy support workers are able to practice at the top of their license. • Ensure appropriate recognition of advanced competences and specialisation, and alignment with formal career progression systems and adequate incentives (remuneration and other). • Increase capacity for specialised training and/or certification programs.
 Education, training, and mentoring to foster innovation and expertise in pharmaceutical sciences.	• Develop guidance on how specialised pharmaceutical science expertise is acquired in different settings. • Establish mechanisms to recognise expertise in pharmaceutical sciences such as patents, fellowship status, grants received, and promotions. • Collaborate with industry and academia to define programmes that offer additional mentoring, networking, international exposure, and leadership development for scientists at all levels.

Annex 2 FIP Development Goal 5 (2020)

FIP DG 5 ELEMENTS Globally, we will have...	MECHANISMS
 Clear and accessible developmental frameworks describing competencies and scope of practice for all stages of professional careers. This should include leadership development frameworks for the pharmaceutical workforce.	• Use of evidence-based developmental frameworks to support the translation of pharmaceutical science within scope of practice, across all settings and according to local/national needs. • Support professional career development by using tools, such as competency frameworks, describing competencies and behaviours across all settings. • Evidence of clear policy that links leadership development (from early years) with competence attainment for the advancement of practice activities.
 Clearly defined developmental frameworks for practitioners describing competencies linked to professional services delivered in practice.	• Use evidence-based competency frameworks that support the development of practitioners to deliver specific professional services within their scope of practice, such as medicines use review, adherence optimisation, compounding, prescribing, vaccinating or managing communicable and non-communicable diseases, to name a few. • Define lists of essential and advanced services delivered by pharmacists and pharmacy support workers within their scope of practice. • Define lists of competencies needed to deliver those services within specific scopes of practice. • Ensure developmental frameworks that support leadership, humanistic and ethics development of the workforce. • Support the development and training of service-led competencies through short courses, certifications and other continuing professional development opportunities.
 Framework describing competencies for all stages of professional careers in pharmaceutical sciences	• Define evidence-based competency frameworks for pharmaceutical scientists to effectively meet the needs in academia, industry, and regulatory bodies.

Annex 3. Reference Lists

1. Anand S, Bärnighausen T. Human resources and health outcomes: cross-country econometric study. Lancet (London, England). 2004;364(9445):1603-9.
2. United Nations (UN). Sustainable Development Goals. 2015.
3. World Health Organization (WHO). Global Strategy on Human Resources for Health: Workforce 2030. Geneva: WHO; 2016.
4. World Health Organization (WHO). Final report of the expert group to the High-Level Commission on Health Employment and Economic Growth. Geneva: WHO; 2016.
5. World Health Organization (WHO). "Working for Health": A Five-Year Action Plan for Health Employment and Inclusive Economic Growth (2017–21). Geneva: WHO; 2017.
6. World Health Organization (WHO), United Nations Children's Fund (UNICEF). Declaration of Astana Global Conference on Primary Health Care. Geneva2018.
7. Nkansah N, Mostovetsky O, Yu C, Chheng T, Beney J, Bond CM, et al. Effect of outpatient pharmacists' non-dispensing roles on patient outcomes and prescribing patterns. The Cochrane database of systematic reviews. 2010(7):Cd000336.
8. Coombes I, Kirsa SW, Dowling HV, Galbraith K, Duggan C, Bates I. Advancing Pharmacy Practice in Australia: the Importance of National and Global Partnerships. Journal of Pharmacy Practice and Research. 2012;42(4):261-3.
9. Giberson S, Yoder S, Lee MP. Improving Patient and Health System Outcomes through Advanced Pharmacy Practice: A Report to the U.S. Surgeon General. In: Pharmacists OotC, editor.: U.S. Public Health Service; 2011.
10. The Lancet. The Astana Declaration: the future of primary health care? Lancet (London, England). 2018;392(10156):1369.
11. International Pharmaceutical Federation (FIP). Advanced Practice and Specialisation in Pharmacy: Global Report 2015. The Hague: The Netherlands: International Pharmaceutical Federation; 2015.
12. Bader L, Bates I, Galbraith K. Trends in advanced practice and specialisation in the global pharmacy workforce: a synthesis of country case studies. International Journal of Pharmacy Practice. 2020;28(2):182-90.
13. Bates I, Bader L, Galbraith K. A global survey on trends in advanced practice and specialisation in the pharmacy workforce. International Journal of Pharmacy Practice. 2020;28(2):173-81.
14. Pharmaceutical Society of Australia. National Competency Standards Framework for Pharmacists in Australia Deakin West2016.
15. Pharmacy Development Australia and Advancing Practice. Advancing practice: Portfolio building guide2018.
16. International Pharmaceutical Federation (FIP). Transforming Our Workforce. The Hague; 2016.
17. International Pharmaceutical Federation (FIP). Transforming Pharmacy and Pharmaceutical Sciences Education in the Context of Workforce Development. The Hague: FIP; 2017.
18. International Pharmaceutical Federation (FIP). FIP Education Initiatives
Pharmacy Education Taskforce
A Global Competency Framework Version 1. The Hague: International Pharmaceutical Federation; 2012.
19. International Pharmaceutical Federation (FIP). 2013 FIPEd Global Education Report2013. Available from: https://fip.org/static/fipeducation/2013/2013-FIPEd-GlobalEducationReport/.
20. The Pharmaceutical Society of Ireland. Core Competency Framework for Pharmacists. Dublin: Pharmaceutical Society of Ireland; 2013.
21. Brown AN, Gilbert BJ, Bruno AF, BPharm GMC. Validated Competency Framework for Delivery of Pharmacy Services in Pacific-Island Countries. Journal of Pharmacy Practice and Research. 2012;42(4):268-72.
22. Udoh A, Bruno A, Bates I, Galbraith K. Transnational comparability of advanced pharmacy practice developmental frameworks: a country-level crossover mapping study. The International journal of pharmacy practice. 2018;26(6):550-9.
23. Competency Development and Evaluation Group (CoDEG). Developing the ACLF 2005 [Available from: http://www.codeg.org/advanced-level-practice/developing-the-aclf/index.html.
24. Department of Health. Guidance for the development of consultant pharmacist posts. 2005.
25. Howard P. A survey of NHS consultant pharmacists in england. European Journal of Hospital Pharmacy: Science and Practice. 2012;19(2):251-2.
26. McKenzie C, Borthwick M, Thacker M, Shulman R, Offord R, Tomlin M, et al. Developing a process for credentialing advanced level practice in the pharmacy profession using a multi-source evaluation tool. Pharmaceutical Journal. 2011;286.
27. Competency Development and Evaluation Group (CoDEG). GLF and ACLF Map. 2019.
28. Galbraith K, Coombes I, Matthews A, Rowett D, Bader L, Bates I. Advanced pharmacy practice: aligning national action with global targets. Journal of Pharmacy Practice and Research. 2017;47(2):131-5.
29. Coombes I, Bates I, Duggan C, Galbraith KJ. Developing and Recognising Advanced Practitioners in Australia: An Opportunity for a Maturing

Profession? Journal of Pharmacy Practice and Research. 2011;41(1).
30. Meadows N, Webb D, McRobbie D, Antoniou S, Bates I, Davies G. Developing and validating a competency framework for advanced pharmacy practice. Pharmaceutical Journal. 2004;273(7327):789-92.
31. Jackson S, Martin G, Bergin J, Clark B, Stupans I, Yeates G, et al. An Advanced Pharmacy Practice Framework for Australia. Pharmacy (Basel, Switzerland). 2015;3(2):13-26.
32. Koh SK, Wong CM, Chan SC, Samarasekera D, Chan YH, Wong HC, et al., editors. Developing and validating a national Advanced Pharmacy Practice Competency Framework for Singapore. FIP World Congress; 2018; Glasgow.
33. Joint Partners Credentialing Task Group (JPCT). Professional recognition and professional advancement: For our practitioners, for our profession and for our patients. London2013.
34. Low J, Shaw N, Coombes I, Matthews A, Rowe M, Greenway T, et al. Advanced and Extended Pharmacy Practice. Canberra2013.
35. Wilson RM, Runciman WB, Gibberd RW, Harrison BT, Newby L, Hamilton JD. The Quality in Australian Health Care Study. Med J Aust. 1995;163(9):458-71.
36. Advanced Pharmacy Practice. Advanced Pharmacy Practice: Framework: The Pharmacy Practitioner Development Committee; 2020 [Available from: https://www.advancedpharmacypractice.com.au/publications/.
37. Advancing Practice. Advancing Practice: Maximise your Impact 2020 [Available from: https://advancingpractice.com.au/.
38. Pharmaceutical Society of Australia (PSA). Pharmacists in 2023: For patients, for our profession, for Australia's health system. Canberra: PSA; 2019 [
39. Pharmaceutical Society of Australia (PSA). Pharmacists in 2023: Roles and remuneration. Canberra: PSA; 2019.
40. Coombes I, Michaels K, Dooley M. Progressing advanced practice: the action so far, and the action ahead. Journal of Pharmacy Practice and Research. 2017;47(4):322-3.
41. Jackson S, Martin G, Bergin J, Clark B, Halstead P, Rowett D, et al. Advanced practice: a survey of current perspectives of Australian pharmacists. Journal of Pharmacy Practice and Research. 2015;45(2):186-92.
42. Dooley M, Coombes I, Michaels K, Duggan C, Bates I. Why pharmacists need advanced practice specialist residences: the UK–Australia story. Journal of Pharmacy Practice and Research. 2017;47(3):221-2.
43. Stacey SR, Coombes I, Wainwright C, Cardiff L, Whitfield K. What does advanced practice mean to Australian paediatric pharmacists? A focus group study. International Journal of Pharmacy Practice. 2015;23(2):141-9.
44. Ministry of Health Singapore. Competency Standards for Pharmacists in Advanced Practice. 2017.
45. Ministry of Health S. Compass for Portfolio Building - A toolkit for Pharmacists. 2019.
46. Ministry of Health S. Development Framework - Continuum of Competency for Pharmacists Version 1.0. In: Office CPs, editor.: Ministry of Health, Singapore,; 2020.
47. Royal Pharmaceutical Society (RPS). Advanced Pharmacy Framework (APF). Royal Pharmaceutical Society Faculty; 2013.
48. Koller M, Kantzer V, Mear I, Zarzar K, Martin M, Greimel E, et al. The process of reconciliation: evaluation of guidelines for translating quality-of-life questionnaires. Expert Rev Pharmacoecon Outcomes Res. 2012;12(2):189-97.
49. Koh SK, Wong CML, Yee ML, Samarasekera DD, Lim MM. The use of portfolio to support competency-based professional development of pharmacists in a Singapore tertiary hospital. MedEdPublish. 2017;6(3):24.

International
Pharmaceutical
Federation

Fédération
Internationale
Pharmaceutique

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

| **2020/ 09 / GADF**