

A Global Competency Framework
Draft version August 2010
FIP Pharmacy Education Taskforce

A Global Competency Framework for Services Provided by Pharmacy Workforce

The Drive for Developing a Global Competency Framework

A competent practitioner workforce is an essential pre-requisite for all health care professions. The capacity to improve therapeutic outcomes, patients' quality of life, scientific advancement and enhancement of our public health imperatives are dependent on the foundation of competence. Before overarching capability, or **competence**, can be determined, the specific **competencies** that comprise that capability must be identified^{1,2,3}. In this case, competencies refer to the knowledge, skills, attitudes and behaviours that an individual develops through education, training and work experience⁴. Taken together, these competencies form a **competency framework** that can contribute towards the development, within an individual, of effective and sustained performance.

Competency frameworks have become increasingly popular in global education due to the need for transparency in the training, development and accreditation of healthcare professionals. The evidence to support their routine use is now unequivocal^{5,6,7}.

One of the first health professions to apply these concepts universally for developing a **global competency framework** is medicine. The World Federation for Medical Education (WFME) has a priority to ensure that competencies of physicians are globally applicable and transferable, accessible and transparent. According to the WFME, international standards can be defined for basic medical education, taking in account the variations of countries due to the differences in teaching, culture, socio-economic conditions and health systems, among others. Nonetheless, the scientific basis of medicine is universal. **We believe such guidance is also possible for pharmacy.**

For these reasons, the FIP Pharmacy Education Taskforce has been working for several years to develop a global competency framework for pharmaceutical services. More information about the Pharmacy Education Taskforce, the scope of its activities and how to become involved is available on pages 10-11 of this booklet.

It is important to recognise that once finalized, the Global Competency Framework is intended to act as a **mapping tool** (which by its nature will continue to progress as the profession evolves). Because it is founded in outcomes of education and training, this document will have interest and applicability for leaders, educators, regulators and practitioners who are working towards global harmonisation of the practice-based expectations for our practitioners. This could have important applications for fostering transnational collaboration and enhancing all aspects of our professional scope of practice, across all sectors and settings.

Developing the Draft Global Competency Framework

Following a literature search (2008) and global survey (2009), 47 documents were retrieved and grouped into categories (eg, competency frameworks, good pharmacy practice, or regulatory documents). Eight documents were closely related to educational development frameworks for practitioners⁸⁻¹⁸.

- **Australia** - Pharmaceutical Society of Australia. Competency Standards for Pharmacists in Australia 2003.
- **Canada** - National Association of Pharmacy Regulatory Authorities. Model Standards of Practice for Canadian Pharmacists. 2003.
- **International Pharmaceutical Federation** - FIP Global Conference on the Future of Hospital Pharmacy, Final Basel Statements. December 2008.
- **New Zealand** - Pharmacy Council of New Zealand. Competency Framework for the Pharmacy Profession. August 2006.
- **Thailand** - Thai Pharmacy Council. Standard criteria for pharmacy practitioners 2002. Bangkok: Thai Pharmacy Council. 2002
- **United Kingdom** - Competency Development and Evaluation Group. General Level Framework, a Framework for Pharmacist Development in General Pharmacy Practice. October 2007.

- **United States of America** - The Council on Credentialing in Pharmacy. Scope of Contemporary Pharmacy Practice: Roles, Responsibilities, and Functions of Pharmacists and Pharmacy Technicians. A Resource Paper of the Council on Credentialing in Pharmacy.
- **Zambia** - Background paper on Human Resources Development. Republic of Zambia, Ministry of Health. 1996.

A comparative study was conducted to identify common behaviours within the different frameworks, resulting in a comprehensive table of elements which were further categorized into the domains of Pharmaceutical Public Health, Pharmaceutical Care, Organisation and Management, and Professional/Personal (Figure 1).

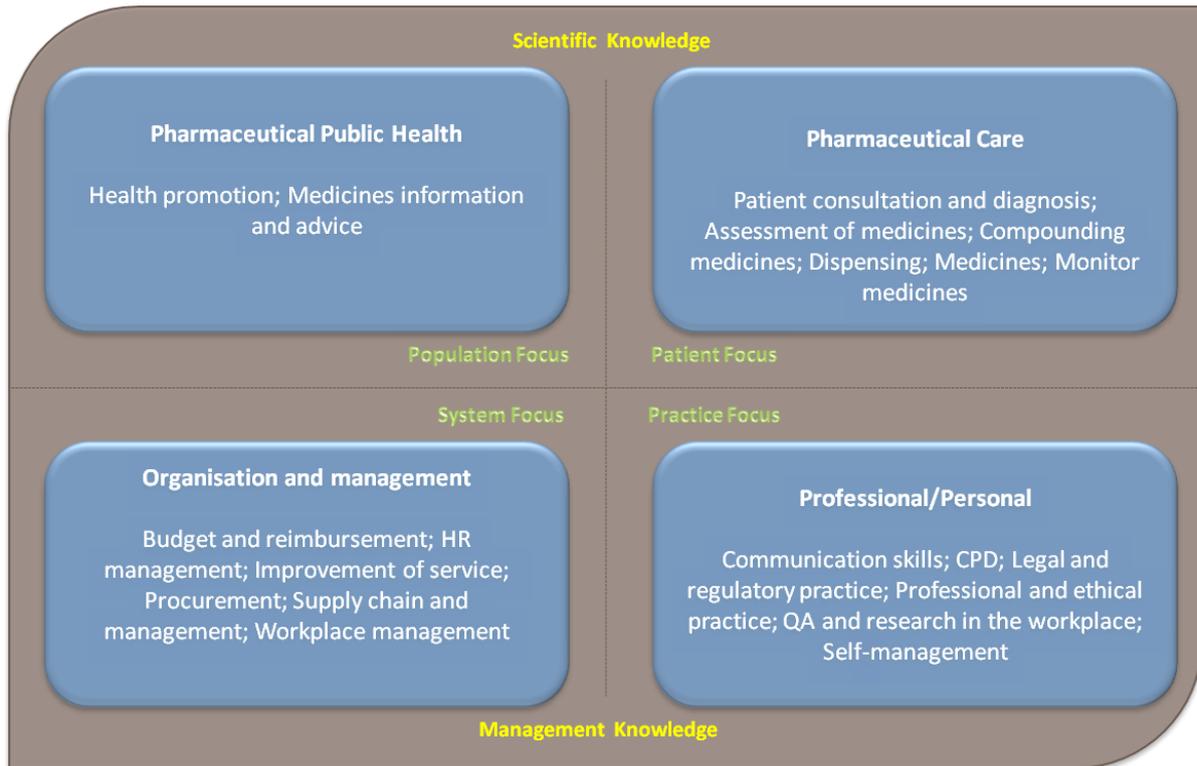


Figure 1 - Domains and illustrative examples from the draft GbCF for pharmaceutical services

The draft Global Competency Framework (GbCF) contains a core set of behavioural competencies synthesised from the above documents that should be generally applicable for the pharmacy workforce worldwide. The draft framework has been through a process of consensus group meetings, content validation meetings and an iterative content phase to reach this stage.

Next Steps for the Draft Global Competency Framework

The Pharmacy Education Taskforce now wishes to engage with a wider constituency of practitioners, in order to validate this draft framework to ensure it will meet general needs as a mapping tool. The purpose of this input is to evaluate the relevance and validity of the current draft, and to specifically capture reactions to the behavioural competencies.

For this reason, an online survey form has been created to widen the engagement with this new instrument. **The survey is available at the following address - <http://www.codegnet.org.uk/gbcf/> and we are requesting that all pharmacists complete it.** Although all the materials you will need to respond to the survey are available online, a printed version of the draft framework as well as the operational definitions supporting the work are included in this booklet for your convenience.

Further consensus panels will be conducted using a modified Delphi approach following the FIP Congress 2010 and responses to the validation survey. Updated progress reports will be circulated to the Taskforce's Community of Practice in order to ensure maximum engagement with project progress.

Thank you for taking an interest in this unique global development project, which we anticipate will result in a valid and useful framework for the benefit of educators, regulators and practitioners in all countries.

Contact

To find out more about the project please contact andreiabruno@gmail.com or see www.fip.org/education

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Pharmaceutical Public Health Competencies	
Competencies	Behaviours
Health promotion	Assess the primary healthcare needs (taking into account the cultural and social setting of the patient)
	Advise on health promotion, disease prevention and control, and healthy lifestyle
Medicines information and advice	Counsel population on the safe and rational use of medicines and devices (including the selection, use, contraindications, storage, and side effects of non-prescription and prescription medicines)
	Identify sources, retrieve, evaluate, organise, assess and disseminate relevant medicines information according to the needs of patients and clients and provide appropriate information
Pharmaceutical Care Competencies	
Competencies	Behaviours
Assessment of medicines	Appropriately select medicines (e.g. according to the patient, hospital, government policy, etc)
	Identify, prioritise and act upon medicine-medicine interactions; medicine-disease interactions; medicine-patient interactions; medicines-food interactions
Compounding medicines	Prepare pharmaceutical medicines (e.g. extemporaneous, cytotoxic medicines), determine the requirements for preparation (calculations, appropriate formulation, procedures, raw materials, equipment etc.)
	Compound under the good manufacturing practice for pharmaceutical (GMP) medicines
Dispensing	Accurately dispense medicines for prescribed and/or minor ailments and monitor the dispense (re-checking the medicines)
	Accurately report defective or substandard medicines to the appropriate authorities
	Appropriately validate prescriptions, ensuring that prescriptions are correctly interpreted and legal

	Dispense devices (e.g. Inhaler or a blood glucose meter)
	Document and act upon dispensing errors
	Implement and maintain a dispensing error reporting system and a 'near misses' reporting system
	Label the medicines (with the required and appropriate information)
	Learn from and act upon previous 'near misses' and 'dispensing errors'
Medicines	Advise patients on proper storage conditions of the medicines and ensure that medicines are stored appropriately (e.g. humidity, temperature, expiry date, etc.)
	Appropriately select medicines formulation and concentration for minor ailments (e.g. diarrhoea, constipation, cough, hay fever, insect bites, etc.)
	Ensure appropriate medicines, route, time, dose, documentation, action, form and response for individual patients
	Package medicines to optimise safety (ensuring appropriate re-packaging and labelling of the medicines)
Monitor medicines therapy	Apply guidelines, medicines formulary system, protocols and treatment pathways
	Ensure therapeutic medicines monitoring, impact and outcomes (including objective and subjective measures)
	Identify, prioritise and resolve medicines management problems (including errors)
Patient consultation and diagnosis	Apply first aid and act upon arranging follow-up care
	Appropriately refer
	Assess and diagnose based on objective and subjective measures
	Discuss and agree with the patients the appropriate use of medicines, taking into account patients' preferences
	Document any intervention (e.g. document allergies, medicines and food, in patient medicines history)
	Obtain, reconcile, review, maintain and update relevant patient medication and diseases history
Organisation and Management Competencies	
Competencies	Behaviours
Budget and reimbursement	Acknowledge the organisational structure
	Effectively set and apply budgets
	Ensure appropriate claim for the reimbursement
	Ensure financial transparency
	Ensure proper reference sources for service reimbursement
	Demonstrate organisational and management skills (e.g. know, understand and lead on medicines management; risk management; self management; time management; people management; project management; policy management.)

Human Resources management	Identity and manage human resources and staffing issues
	Participate, collaborate, advise in therapeutic decision-making and use appropriate referral in a multi-disciplinary team
	Recognise and manage the potential of each member of the staff and utilise systems for performance management (e.g. carry out staff appraisals)
	Recognise the value of the pharmacy team and of a multidisciplinary team
	Support and facilitate staff training and continuing professional development
Improvement of service	Identify and implement new services (according to local needs)
	Resolve, follow up and prevent medicines related problems
Procurement	Access reliable information and ensure the most cost-effective medicines in the right quantities with the appropriate quality
	Develop and implement contingency plan for shortages
	Efficiently link procurement to formulary, to push/pull system (supply chain management) and payment mechanisms
	Ensure there is no conflict of interest
	Select reliable supplies of high-quality products (including appropriate selection process, cost effectiveness, timely delivery)
	Supervise procurement activities
Supply chain and management	Understand the tendering methods and evaluation of tender bids
	Demonstrate knowledge in store medicines to minimise errors and maximise accuracy
	Ensure accurate verification of rolling stocks
	Ensure effective stock management and running of service with the dispensary
	Ensure logistics of delivery and storage
	Implement a system for documentation and record keeping
Work place management	Take responsibility for quantification of forecasting
	Address and manage day to day management issues
	Demonstrate the ability to take accurate and timely decisions and make appropriate judgments
	Ensure the production schedules are appropriately planned and managed
	Ensure the work time is appropriately planned and managed
	Improve and manage the provision of pharmaceutical services
Recognise and manage pharmacy resources (e.g. financial, infrastructure)	

Professional/Personal Competencies	
Competencies	Behaviours
Communication skills	Communicate clearly, precisely and appropriately while being a mentor or tutor
	Communicate effectively with health and social care staff, support staff, patients, carer, family relatives and clients/customers, using lay terms and checking understanding
	Demonstrate cultural awareness and sensitivity
	Tailor communications to patient needs
	Use appropriate communication skills to build, report and engage with patients, health and social care staff and voluntary services (e.g. verbal and non-verbal)
Continuing Professional Development (CPD)	Document CPD activities
	Engage with students/interns/residents
	Evaluate currency of knowledge and skills
	Evaluate learning
	Identify if expertise needed outside the scope of knowledge
	Identify learning needs
	Recognise own limitations and act upon them
Reflect on performance	
Legal and regulatory practice	Apply and understand regulatory affairs and the key aspects of pharmaceutical registration and legislation
	Apply knowledge in relation to the principals of business economics and intellectual property rights including the basics of patent interpretation
	Be aware of and identify the new medicines coming to the market
	Comply with legislation for drugs with the potential for abuse
	Demonstrate knowledge in marketing and sales
	Engage with health and medicines policies
	Understand the steps needed to bring a medicinal product to the market including the safety, quality, efficacy and pharmacoeconomic assessments of the product
Professional and ethical practice	Demonstrate awareness of local/national codes of ethics
	Ensure confidentiality (with the patient and other healthcare professionals)
	Obtain patient consent (it can be implicit on occasion)
	Recognise own professional limitations
	Take responsibility for own action and for patient care

<p>Quality Assurance and Research in the work place</p>	<p>Apply research findings and understand the benefit risk (e.g. pre-clinical, clinical trials, experimental clinical-pharmacological research and risk management)</p> <p>Audit quality of service (ensure that they meet local and national standards and specifications)</p> <p>Develop and implement Standing Operating Procedures (SOP's)</p> <p>Ensure appropriate quality control tests are performed and managed appropriately</p> <p>Ensures medicines are not counterfeit and quality standards</p> <p>Identify and evaluate evidence-base to improve the use of medicines and services</p> <p>Implement, conduct and maintain a reporting system of pharmacovigilance (e.g. report Adverse Drug Reactions)</p> <p>Initiate and implement audit and research activities</p>
<p>Self-management</p>	<p>Apply assertiveness skills (inspire confidence)</p> <p>Demonstrate leadership and practice management skills, initiative and efficiency</p> <p>Document risk management (e.g. critical incidents)</p> <p>Ensure punctuality</p> <p>Prioritise work and implement innovative ideas</p>

The Pharmacy Education Taskforce (PET)

The PET was established in November 2007 with the endorsement of FIP Executive to undertake a collaborative tripartite programme of work (with our UNESCO and WHO partners) formulated in the Pharmacy Education Action Plan 2008 – 2010¹⁹. The aims of the Action Plan are to support wider efforts to catalyse country level responses to the pharmacy workforce crisis, provide evidence-based guidance and frameworks to facilitate pharmacy education development and capacity to enable the sustainability of a pharmacy workforce relevant to the country needs (Figure 2). This work was conducted using a needs-based approach to education development.



Figure 2 – The needs-based education development cycle.

The PET Domains of Activity

The ability to scale up the pharmacy workforce and further develop pharmacy education is directly related to the overall capacity of the education and training institutions and the corresponding academic workforce. In addition, educational governance and process, and the challenges related to career, education and continued training, underpin attempts to enhance pharmaceutical services provision worldwide. The Taskforce domains for action, as defined by the wider global constituency through the consultation events, are:

- *Vision for pharmacy education*
- *Competency based approaches for developing and sustaining pharmaceutical services*
- *Academic and institution capacity (workforce and infrastructure), and*
- *Quality Assurance*

Global Consultations

The first FIP Global Pharmacy Education Consultation in 2006 led to the development and remit for the Taskforce, the initial domains for action and recommendations for an action plan. The second consultation in 2007 together with WHO and UNESCO, focused on building consensus for the Action Plan that would seek to facilitate comprehensive pharmacy education and development. A proposal for progressing the Action Plan, in partnership with other agencies, was formulated and implemented. Progress of the first year of the implementation of Action Plan and outcomes of a pilot country case study from Ghana and Zambia were reported at the third consultation in 2008. For the first time, a panel discussion was hosted regarding the challenges of pharmacy education in sub-Saharan Africa. The following year, delegates at the fourth global

consultation decided to expand the remit of the PET with additional domains of action. Further advances were made with the development of a global communications platform for pharmacy education.

The fifth consultation will be held at the 70th FIP World Congress in 2010 in Lisbon, Portugal. Here, outcomes of the Action Plan will be presented and discussed, together with new initiatives featuring a UNESCO supported UNITWIN project, a draft global competency framework for educational outcomes and the validation results of the global quality assurance framework. Progress with research on capacity building challenges and the Country Case Study projects will also be outlined.

If you would like more information about the Pharmacy Education Taskforce, please see http://www.fip.org/pharmacy_education. To join our online community of practice, please contact education@fip.org.

Glossary

Competency framework – A complete collection of competencies that are thought to be essential to performance.

Competencies – Knowledge, skills, behaviours and attitudes that an individual accumulates, develops, and acquires through education, training, and work experience.

Compounding - Preparation, mixing or assembling of a medicine. See manufacturing.

Continuing Professional Development (CPD) – The responsibility of individual pharmacists for systematic maintenance, development and broadening of knowledge, skills and attitudes, to ensure continuing competence as a professional throughout their careers.

Cost-effectiveness – A financial measure of comparative efficiency of discrete strategies and methods for achieving the same objective.

Counsel – To offer an explanation of the purpose of the prescribed medicines; proper administration, including length of therapy, special directions for use, proper storage, and refill instructions; information on common adverse effects, potential interactions, and contraindications to the use of the medicines; and guidance on steps to take given specific outcomes.

Cultural awareness and sensitivity – Customs, values, and norms of societies which affects health systems dynamics, including gender, language and residence.

Dispensing – To label from stock and supply a clinically appropriate medicine to a patient or caregiver and to advise on safe and effective use.

‘Dispensing Error’ - Any situation where wrong, or incomplete medicine or medicinal device or one which was incorrectly labelled which may or may not have caused harm to a patient, was given to a patient.

Evidence-Based practice – Using good quality evidence to make sound clinical decisions.

Good manufacturing practice (GMP) - The part of quality assurance that ensures that products are consistently produced and controlled to the standards appropriate to their intended use and as required in the marketing authorisation.

Health literacy – The ability to read, understand and use healthcare information to make decisions and follow instructions for treatment.

Innovation – The translation of ideas into new or improved services, processes, or systems.

Labelling - Identification of a pharmaceutical product, which includes the following information, as appropriate: name; API(s), type and amount; batch number; expiry date; special storage conditions or handling precautions; directions for use, warnings and precautions; names and addresses of the manufacturer and/or the supplier.

Manufacturing – Manufacture of medicinal active substances to be used for their pharmacological properties in pharmaceuticals and medical products. Includes – (1) manufacturing biological and medicinal products; (2) processing (i.e., grading, grinding, and milling) botanical medicines and herbs; (3) isolating active medicinal principals from botanical medicines and herbs; and (4) manufacturing pharmaceutical products intended for internal and external consumption in such forms as ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions.

Minor ailments – Conditions which have no significant health risk to the patient are usually self-limiting and frequently become resolved without medication. Such as diarrhoea, constipation, cough, hay fever, insect bites, etc.

‘Near misses’ - Any situation where wrong or incomplete medicine, medicinal device or one which was incorrectly labelled which may or may not have caused harm to a patient, would have been given to the patient if an intervention had not been made.

Performance – An effective and persistent observable behaviour. What an individual actually does as opposed to what they can do.

Performance management – Process of optimising productivity and quality of work of the workforce.

Pharmaceutical Care – The responsible provision of medicines therapy for the purpose of achieving definite outcomes, to improve patient’s quality of life.

Pharmaceutical Public health - Public health activities carried out by pharmacists to protect the health of populations, such as disease prevention and control and promotion of healthy lifestyles.

Pharmacovigilance – Detection, assessment, understanding and prevention of adverse effects arising from medicines use.

Procurement – The processes involved in identifying and securing adequate supplies of medicines at affordable prices with an appropriate standard of quality. It includes all activities related to the management of the medicines supply chain.

Pull system - Supply chain driven by demand (orders and consumption).

Push system - Supply chain driven by forecasts of demand.

Quality assurance – A system of processes and assessments in pharmaceutical manufacturers to ensure quality and integrity of pharmaceutical and medical products.

Standing Operating Procedures (SOP’s) - A specific set of procedures to be followed routinely.

Team – The staff (pharmacy or multidisciplinary) or care group with which the pharmacist works most closely.

Therapeutic monitoring – The regular measurement of serum levels of medicines requiring close ‘titration’ of doses in order to ensure that there are sufficient levels in the blood to be therapeutically effective, while avoiding potentially toxic excess.

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