The objective of the Global Conference on Pharmacy and Pharmaceutical Sciences Education (taking place in Nanjing, China, on 7 and 8 November 2016) is to establish the milestones for impactful global development for pharmacy and pharmaceutical sciences education.

FIP aims to have a platform from which to build sustainable near and longer term plans of action on behalf of member organisations and partners by reaching agreement on the range and scope of pharmaceutical workforce development goals (WDGs) arising from the broad international consultation leading to and including the Nanjing conference. WDGs will be a significant directive force for actions, fund-raising and near and long term deliverables for FIP. FIP will adhere to a set of principles for WDGs that will guide the subsequent plan of action.

There is no attempt to prioritise or attach levels of importance to individual WDGs; the important feature is the whole scope/range of potential goals that can be influential and achievable from a global leadership perspective. For each WDG, a summative set of drivers, imperatives and indicators is provided.

Currently there are 13 WDGs that have been grouped into three clusters: academy (focus on the schools, universities and education providers), professional development (focus on the pharmaceutical workforce), and systems (focus on policy development, governmental strategy and planning, and monitoring systems).

1 WDG principles and goals are aligned with the Nanjing conference objectives as described in the terms of reference.

2 Pharmaceutical workforce – in this document, refers to the whole of the pharmacy related workforce (e.g. registered pharmacist practitioners, pharmaceutical scientists, pharmacy technicians and other pharmacy support workforce cadres, pre-service students/trainees) working in a diversity of settings (e.g. community, hospital, research and development, industry, military, regulatory, academia and other sectors) with a diversity of scope of practice.
## WORKFORCE DEVELOPMENT GOALS

<table>
<thead>
<tr>
<th>Cluster</th>
<th>WDG</th>
<th>WDG general description. Countries/territories and member organisations should have:</th>
<th>Rationale, drivers and potential indicators</th>
</tr>
</thead>
</table>
| **Academy** Focus on the schools, universities and education providers | 1. **Academic capacity** | Engagement with pharmaceutical higher education development policies and ready access to leaders in pharmaceutical science and clinical practice in order to support supply-side workforce development agendas. | - Increase the capacity to provide a competent pharmaceutical workforce by developing initial education and training programmes that are fit for purpose, according to national health resource needs (clinical practice, pharmaceutical science areas and stakeholders across all cadres).  
- Develop new and innovative ways to attract young pharmacists into all areas of pharmaceutical practice and science (e.g. encourage young pharmacists to consider careers in clinical academia, as preceptors/trainers, in industrial pharmacy, regulatory sciences, nuclear and veterinary pharmacy, among others).  
- Capacity building should include the ability to meet minimum national standards of facilities, educators and student support in order to ensure access to quality education for all students.  
- Enhance interprofessional education and collaboration with key stakeholders, including governments, national and international pharmacy/pharmaceutical organisations and patient advocacy groups to achieve sustainable solutions for capacity development.  
- The clinical academic educator workforce needs more attention to training, career development and capacity building, which must, importantly, include research capacity enhancement. |
| **Foundation training and early career development** | 2. **Foundation training** | Foundation training infrastructures in place for the early post-registration (post-licensing) years of the pharmaceutical workforce as a basis for consolidating initial education and training and progressing the novice workforce towards advanced practice. | - Create clear and purposeful education and training pathways/programmes to support post-registration (post-graduation) foundation training (clinical practice and pharmaceutical science areas).  
- Develop early career maps and frameworks to support a seamless transition into early career practice and towards advanced practice.  
- Develop structured approaches to early career mentoring systems to support novice practitioners to engage with peers and preceptors (in clinical practice and pharmaceutical science areas across the pharmaceutical workforce). |
| **Quality assurance** | 3. **Quality assurance** | Transparent, contemporary and innovative processes for the quality assurance of needs-based education and training systems. | - Ensure the quality of the workforce by quality assuring the continuous development and the delivery of adequate and appropriate education and training. Quality assurance needs to address academic and institutional infrastructure in order to deliver the required needs and competency-based education and training.  
- Establish standards-based global guidance for quality assurance of pharmacy and pharmaceutical science education in the context of local needs and practice.  
- Implement fair, effective and transparent policies and procedures for quality assurance of pharmacy and pharmaceutical science education and training.  
- Define critical stakeholder input on development of adequate education and training systems. |
| **Professional development** Focus on the pharmaceutical workforce | 4. **Advanced and specialist expert development** | 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 into 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 as markers for advancement and specialisation across the workforce, including advanced pharmaceutical scientists. |
| **Competency development** | 5. **Competency development** | 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. |
| **Leadership development** | 6. **Leadership development** | Strategies and programmes in place that develop professional leadership skills (including clinical and executive leadership) for all stages of career development, including pharmaceutical sciences and initial education and training. | - Creation of programmes/strategies for the development of leadership skills (including tools and mentoring systems), to support pharmacists and pharmaceutical scientists through their careers.  
- Advocacy for leadership development in health care teams, linked to collaborative working activities (for example, promotion of team-based approaches to health care service delivery).  
- Ideally, this should be linked with competency and foundation and early year career development activities. |

* Pharmaceutical workforce – in this document, refers to the whole of the pharmacy related workforce (e.g. registered pharmacist practitioners, pharmaceutical scientists, pharmacy technicians and other pharmacy support workforce cadres, pre-service students/trainees) working in a diversity of settings (e.g. community, hospital, research and development, industry, military, regulatory, academia and other sectors) with a diversity of scope of practice.
## Professional Development
**Focus on the pharmaceutical workforce**

**7. Service provision and workforce education and training**

A patient-centred and integrated health services foundation for workforce development, relevant to social determinants of health and needs-based approaches to workforce development.

- Systematic development of education and training activities based on local health care systems, their capacity and funding.
- Evidence of systematic development policies and strategies for the strengthening and transforming pharmaceutical workforce* development and the systematic training of trainers/educators.
- Education providers must ensure, by the provision of evidence-based approaches, that lecturers/teachers/trainers are themselves appropriately trained for capability and competency.
- Enable the pharmaceutical workforce* and key stakeholders to promote health equity through actions related to social determinants of health.

**8. Working with others in the health care team**

Clearly identifiable elements of collaborative working and interprofessional education and training which should be a feature of all workforce development programmes and policies.

- Evidence of policy formation to demonstrate how health care professionals can develop and engage in partnerships to achieve better health outcomes.
- Develop education and training strategies/programmes to ensure collaboration within the pharmaceutical workforce* and training on medicines for other health care professionals.
- Ideally, this should be linked with formal professional development activities.

## Systems
**Focus on policy development, governmental strategy and planning, and monitoring systems**

**9. Continuing professional development strategies**

All professional development activity clearly linked with needs-based health policy initiatives and pharmaceutical career development pathways.

- Evidence of an effective continuing professional development strategy according to national and local needs.
- Development of programmes to support professional development across all settings of practice and all stages of a pharmacist’s career.
- Ideally, this should be linked with all professional development activities across the workforce*.
- Education in continuing professional development strategies and self-directed behaviours should be initiated at the student level.

**10. Pharmaceutical workforce* gender and diversity balances**

Clear strategies for addressing gender and diversity inequalities in pharmaceutical workforce* development, continued education and training, and career progression opportunities.

- Demonstration of strategies to address the gender and diversity inequalities across all pharmaceutical workforce* and career development opportunities.
- Ensure full and effective participation and equal opportunities for leadership at all levels of decision-making in pharmaceutical environments, avoidable barriers to participation for all social categories are identified and addressed.
- Engagement and adoption of workforce development policies and enforceable legislation for the promotion of gender and diversity equality; policies and cultures for the empowerment of all without bias.
- This should be applicable to academic capacity and leadership development activities.

**11. Workforce impact and effect on health improvement**

Evidence of the impact of the pharmaceutical workforce* within health systems and health improvement.

- Engagement with systems to measure the impact of the pharmaceutical workforce on health improvement and health care outcomes. Links with needs-based education, training and workforce planning.
- Gather continuous data points to monitor the performance of the pharmaceutical workforce*.
- Ideally, this should be linked with strategies to enhance workforce intelligence.

**12. Workforce intelligence**

A national strategy and corresponding actions to collate and share workforce data and workforce planning activities (skill mixes, advanced and specialist practice, capacity). Without workforce intelligence data there can be no strategic workforce development.

- FIP should aim to have a global workforce compendium of case studies developed by 2019.
- Develop monitoring systems to identify workforce trends to enable decision making on deployment and supply of pharmaceutical workforce* noting that time-lags are often present in these activities.
- Ideally, this should be linked with stewardship and leadership for professional leadership bodies.

**13. Workforce policy formation**

Clear and manageable strategies to implement comprehensive needs-based development of the pharmaceutical workforce* from initial education and training through to advanced practice.

- Adopt and strengthen sound policies and enforceable legislation for holistic needs-based approaches to professional development across all settings and stages.
- Develop strategies where pharmaceutical science and professional services are the driving forces for this activity.

---

* Pharmaceutical workforce – in this document, refers to the whole of the pharmacy related workforce (e.g. registered pharmacist practitioners, pharmaceutical scientists, pharmacy technicians and other pharmacy support workforce cadres, pre-service students/trainees) working in a diversity of settings (e.g. community, hospital), research and development, industry, military, regulatory, academia and other sectors) with a diversity of scope of practice.