Reporte de la Conferencia Mundial sobre Educación en Farmacia y Ciencias Farmacéuticas. Nanjing

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AACP
Global Conference on
Pharmacy &
Pharmaceutical Sciences
Education
7-8 November 2016

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Nanjing China TRANSFORM PHARMACY
including 8345 undergraduates 2485 post
其中本科生8
研究
5名

Antecedentes

- La Conferencia Mundial de la FIP en Nanjing tuvo como objetivo:
- Adoptar una Visión Global y Compartida que consiste en describir la dirección de futuro de nuestra profesión y como la educación puede soportar esa evolución.
- Se adopten por la profesión las metas de desarrollo de la profesión (Workforce) y esto esta alineado con las metas de desarrollo sostenido (Sustainable Development Goals, (SDG3) de WHO

SDG 3

- Asegurar vida saludable y promover el bienestar para todos en todas las edades.
- Incluye metas e implementación
- Existe una Estrategia global en Recursos Humanos para la Salud HRH por parte de la WHO hacia 2030
- Conferencia propone:
- Liderar el cambio
- Desarrollar una fuerza de trabajo adecuada al objetivo
- Practica y premios

Definiciones de la FIP

- Farmacéutico
  - A pharmacist is a scientifically-trained graduate healthcare professional who is an expert in all aspects of the supply and use of medicines. Pharmacist assure Access to safe , cost effective and quality medicines and their responsible use by individual patients and health care systems
- Pharmaceutical Scientist
  - A pharmaceutical scientist is a qualified expert in aspects of the science and technology of medical products. This includes –but is no limited to- the discovery, development, manufacture, regulation and utilisation of medical products – embracing how medicines work, how safe and effective products are brought to the market , their impact on the body, and their effect on the prevention and treatment of disease.

COLLEGE OF PHARMACEUTICAL SCIENCES, ZHEJIANG UNIVERSITY
浙江大学药学院
College of Pharmaceutical Sciences, Zhejiang University
LLABORATION

Roles y servicios de la práctica y la ciencia

- Conocimientos
- Química y BQ
- Biología y fisiología
- Farmacología y terapéutica
- Fisicoquimica
- Biofarmacia y farmacocinética
- Ciencias básicas/ingeniería
- Ciencias básicas

- Conocimientos
- Reacciones adversas e interacciones medicamentosas
- Farmacoepidemiología
- Farmacoeconomía
- Análisis para decisiones de salud
- Diseño experimental
- Desarrollo de medicamen

Roles y servicios de la práctica y la ciencia

- Habilidades
- Competitividad técnica
- Crítico /pensamiento lógico
- Resuelve problemas
- Buena intercomunicación

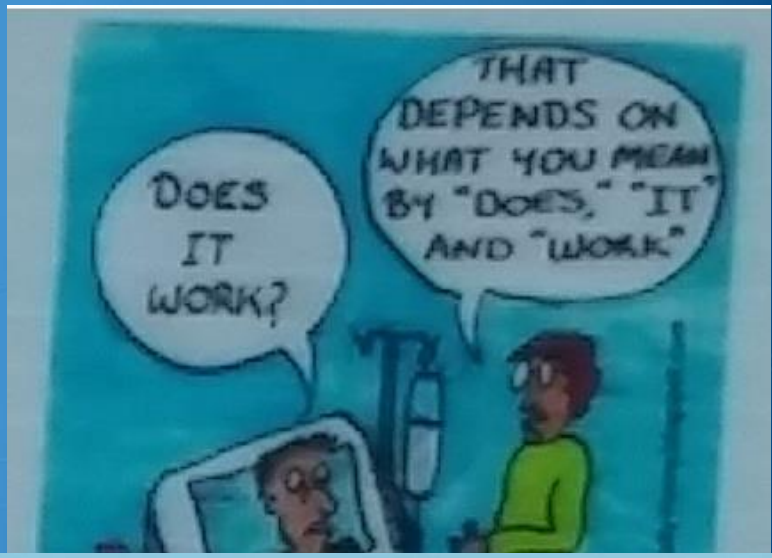
- Habilidades
- Administración de tiempo/proyectos
- Liderazgo /toma decisiones
- Trabajo por objetivos
- Trabajo en equipo
- Reflexivo

Roles y servicios de la práctica y la ciencia

- Actitudes
- Profesional commitment
- Creatividad
- Toman riesgos medidos
- Mente abierta
- Aprende de sus errores
- Automotivación
- Autoconfianza
- Colaborativos
- Visión positiva
- Valores
- Etica
- integridad
- Honestidad
- Diversidad
- Tolerancia
- Exactitud
- Responsabilidad
- Excelencia cientifica

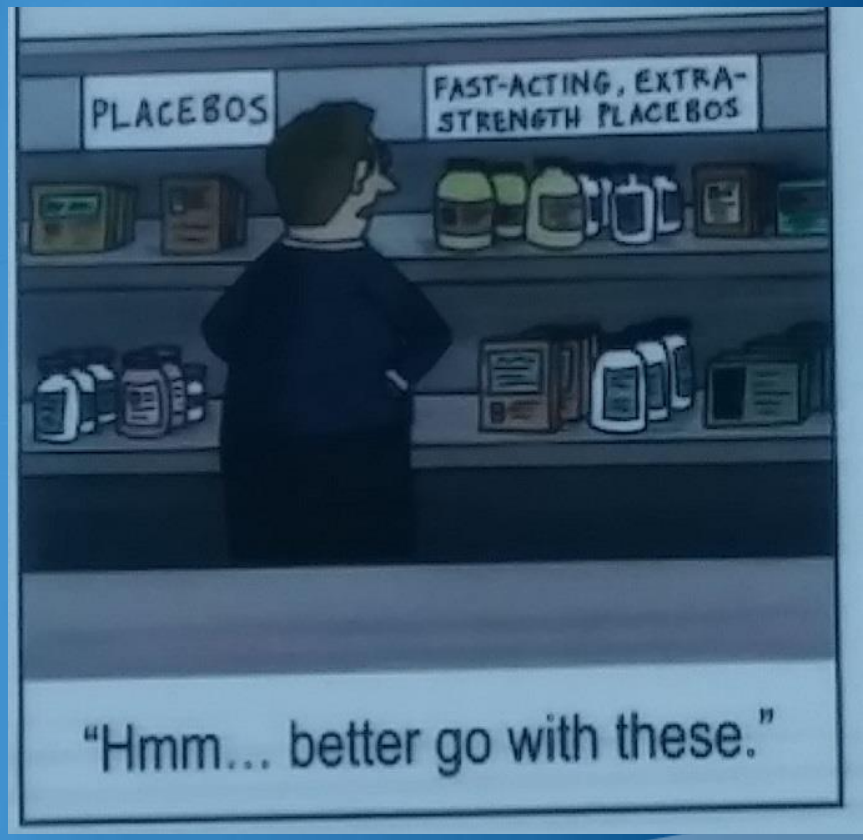
Educational gaps practice focus

- Science versus clinical
- Know how versus know what
- Efficacy vs effectiveness vs efficiency
- Citizen empowerment
- Broadband: friend or foe?



Educational gaps Science focus

- Curricular balance during formative phase
- Variable skills requirements
- Degree vs no degree training
- Inter / cross discipline training
- Regulatory sciences
- Pharmaceutical engineering



SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

1 ACADEMIC CAPACITY
2 FOUNDATION TRAINING
3 QUALITY ASSURANCE
4 ADVANCED AND SPECIALIST DEVELOPMENT
5 COMPETENCY DEVELOPMENT
6 LEADERSHIP DEVELOPMENT
7 SERVICE PROVISION AND WORKFORCE EAT
8 WORKING WITH OTHERS
9 CPD STRATEGIES
10 GENDER AND DIVERSITY BALANCES
11 WORKFORCE IMPACT
12 WORKFORCE INTELLIGENCE
13 WORKFORCE POLICY FORMATION
Professional development and career pathways
A focus on education providers – but not exclusively
Strategy, policy, monitoring, and systems

Clusters

1.	Shared Global Vision	8
2.	Professional Skills Mix	11
3.	Recruitment of students	3
4.	Foundation Training and Leadership	6
5.	Experiential Education	11
6.	Resources and Academic Staff	16
7.	Quality Assurance in Education	11
8.	Continuing Professional Development	4
9.		70

NANJING STATEMENTS ON PHARMACY AND PHARMACEUTICAL SCIENCES EDUCATION

Adopted at the FIP Global Conference on Pharmacy and Pharmaceutical Sciences Education
Held on 7-8 November 2016 in Nanjing, People's Republic of China

fip International Pharmaceutical Federation

Cluster 1: Shared Global Vision

Description of the cluster: A shared global vision promotes workforce development in the context of pharmaceutical education and training. This global vision should help professional leadership bodies, educators and regulators in developing a national or regional vision based on the priorities and resources of the country or region, with the aim of developing new medicines and improving their use for better health.

1.1	Workforce planning, at national and local levels, should include the roles of all relevant personnel, (e.g., pharmacy technicians/assistants, generalist pharmacists, specialists, advanced practitioners and pharmaceutical scientists) sufficient to meet local health needs as part of the health care system.
1.2	The education and training of pharmacists should have an underlying foundation in both the physical and biological sciences sufficient to prepare the student for current and future practice.
1.3	Schools[1] should teach students so they can attain competencies in professional values, ethics and professionalism by graduation in order to improve the responsible use of medicines, their discovery, development, manufacturing and distribution.
1.4	Schools should ensure that the needs and future trends in health care delivery, advancement in the profession, the pharmaceutical industry and education are taken into account to develop and update the curriculum.
1.5	Schools should promote the message that pharmacists are patient advocates and care providers who provide / facilitate efficient access to quality medicines with the goal of helping patients make the best use of their medicines.
1.6	Academic staff should add to the evidence that pharmacists can improve the responsible use of medicines to improve effectiveness, safety and efficient use of limited resources and should convey to the students the skills to achieve this.
1.7	Pharmacists should be champions for good health and wellness promotion, preventive medicine and holistic patient management. Pharmacists must undertake this through an economic, social, cultural and ethical perspective.

Clusters

1.	Visión Global compartida	8
2.	Habilidades Profesionales	11
3.	Reclutamiento de estudiantes	3
4.	Liderazgo y bases de capacitación	6
5.	Educación por experiencia	11
6.	Recursos y platilla académica	16
7.	Aseguramiento de la calidad en educación	11
8.	Desarrollo profesional continuo	4

Cluster 1 Visión global compartida

- Una visión global compartida promueve el desarrollo profesional en el contexto de la educación y la formación farmacéutica. Esta visión global debe ayudar a los cuerpos de liderazgo profesionales, educadores y reguladores a desarrollar una visión nacional o regional basada en las prioridades y recursos del país o región, con el objetivo de desarrollar nuevos medicamentos y mejorar su uso para una mejor salud.

Cluster 1 Visión global compartida

Cluster 1: **Shared Global Vision**		
	Description of the cluster: A shared global vision promotes workforce development in the context of pharmaceutical educatic This global vision should help professional leadership bodies, educators and regulators in developing a national or regional v priorities and resources of the country or region, with the aim of developing new medicines and improving their use for bette	97.8%
1.1	Workforce planning, at national and local levels, should include the roles of all relevant personnel, (e.g., pharm technicians/assistants, generalist pharmacists, specialists, advanced practitioners and pharmaceutical scientist meet local health needs as part of the health care system.	89.1%
1.2	The education and training of pharmacists should have an underlying foundation in both the physical and biolc sufficient to prepare the student for current and future practice.	95.4%
1.3	Schools[1] should teach students so they can attain competencies in professional values, ethics and professionali graduation in order to improve the responsible use of medicines, their discovery, development, manufacturing	98.3%
1.4	Schools should ensure that the needs and future trends in health care delivery, advancement in the profession pharmaceutical industry and education are taken into account to develop and update the curriculum.	95.0%
1.5	Schools should promote the message that pharmacists are patient advocates and care providers who provide / efficient access to quality medicines with the goal of helping patients make the best use of their medicines.	95.2%
1.6	Academic staff should add to the evidence that pharmacists can improve the responsible use of medicines to ir effectiveness, safety and efficient use of limited resources and should convey to the students the skills to achie	73.6%
1.7	All pharmacists should be encouraged to participate in research studies to facilitate the development of new p their practice model to meet the needs of patients and populations, and evaluate the outcomes of their profes	90.0%
1.8	Pharmacists should be champions for good health and wellness promotion, preventive medicine and holistic pa management. Pharmacists must undertake this through an economic, social, cultural and ethical perspective.	

[1] In this document, schools are defined as "Schools of Pharmacy and/or Pharmaceutical Sciences"

Cluster 2 Mezcla de habilidades profesionales

- Los farmacéuticos en todos los entornos y los científicos farmacéuticos necesitan competencias, habilidades, conocimientos y actitudes para satisfacer las necesidades del público e interactuar con otros profesionales de la salud

Cluster 2 Mezcla de habilidades profesionales

Cluster 2: **Professional Skills Mix**		
Description of the cluster: Pharmacists in all settings and pharmaceutical scientists need competence, skills, knowledge and attitudes to meet the needs of the public and interact with other health care professionals.		
2.1	The proper balance of science and practice should be established and taught: biomedical sciences, including pharmacology and pharmacotherapy, should be distributed throughout the curriculum and should be taugh patients and medicines.	100.0%
2.2	Aspects of pharmaceutical chemistry, pharmaceutical technology and pharmaceutical analysis should be incl curriculum to present the processes related to the development, production and registration of medicinal pr should be taught both basic pharmaceutical sciences and the use of medicines in the context of the patient	91.5%
2.3	Pharmaceutical regulatory sciences should be included as part of the curriculum to provide knowledge and s relevant to ensure the quality and safety of medicines and appropriate professional practice.	96.4%
2.4	Besides the basic sciences, clinical, social and administrative sciences are fundamental when they support le patients and their use of medicines.	92.0%
2.5	Training and education in ethical competence should be explicitly described as a core competency and as pa professionalism of the pharmacist in scientific and clinical practice.	92.5%
2.6	Students must develop the knowledge and skills to critically assess scientific evidence, including that which is patient care and population health.	98.5%
2.7	Graduate education and training for the pharmaceutical workforce should include opportunities for cross-dis	91.9%
2.8	Professional communication, documentation, lifelong learning and critical thinking should be core competen and pharmaceutical scientists.	96.4%
2.9	Students should have the ability and opportunity to learn to apply the scientific knowledge that is taught in t any field within the profession.	95.2%
2.10	Pharmaceutical science courses will have a laboratory component to enhance students' scientific skills.	88.1%
2.11	Pharmacists should learn to work collaboratively with other health care professionals and scientists in medic social fields.	58.1%

Cluster 3 Reclutamiento de estudiantes

- El Reclutamiento de estudiantes que tienen un perfil que se ajusta a los requerimientos de la escuela y se alinea con el perfil de farmacéuticos deseado para el país.

Cluster 3 Reclutamiento de estudiantes

Cluster 3: **Recruitment of Students**		
Description of the cluster: Recruiting students who have a profile that fits the requirements of the school and is aligned with the profile of pharmacists desired for the country.		
3.1	Admissions practices should consider the value of a diverse student body reflecting regional population chara	81.3%|
3.2	Students entering a school should have a strong scientific background and evidence of good academic perf and general education courses as prerequisite for entry.	76.4%
3.3	Students entering a school should demonstrate good social and emotional skills, preferably confirmed at an appropriate means as a required part of the admissions process.	59.3%

Cluster 4 Formación básica y liderazgo

- Formación básica incluye el proceso de educación y desarrollo de liderazgo para los estudiantes y los nuevos graduados en farmacia y las ciencias farmacéuticas con una prioridad en el desarrollo de la próxima generación de líderes clínicos, científicos, académicos y profesionales.

Cluster 4 Formación básica y liderazgo

Cluster 4: **Foundation Training and Leadership**		
Description of the cluster: Foundation training includes the process of education and leadership development for students and new graduates in pharmacy and the pharmaceutical sciences with a priority on developing the next generation of clinical, scientific, academic and professional leaders.		
4.1	There is a common scientific core for both pharmacists and pharmaceutical scientists, but the context for lea is different.	81.5%
4.2	Students should understand social determinants of health.	88.6%
4.3	Clinical competency should be assessed at relevant stages and assessment of student learning has to determ which students can effectively apply the knowledge taught in practice.	94.2%
4.4	Assessment of student learning should include an ability for independent and self-directed learning that is ne continuing professional development after graduation.	89.7%
4.5	Pharmaceutical scientists and pharmacists should gain skills in interpersonal communication and teamwork.	95.7%
4.6	Schools should prepare students to be future mentors, supervisors, preceptors and leaders. This includes pro of peer support and knowledge sharing among students and encouraging students to mentor younger studer	94.4%

Cluster 5 Educación por experiencia

- Los programas de educación práctica son donde los estudiantes desarrollan gradualmente su práctica de farmacia y habilidades de ciencia en una amplia variedad de ambientes de la vida real

Cluster 5 Educación por experiencia

Cluster 5: **Experiential Education**		
Description of the cluster: Experiential education programmes are where students incrementally develop their pharmacy practice and science skills in a wide variety of real-life settings.		
5.1	Experiential education should foster development of critical thinking and problem solving processes r and medicines use.	94.2%
5.2	Students should have the opportunity to reflect on the clinical learning experience through patient ca development and discussions of patient notes/pharmaceutical care plans.	92.3%
5.3	Pharmacy students should participate in direct patient care experiences in hospital and community pr other practice experiences defined by local needs for pharmacists.	94.2%
5.4	Students should be provided with supervised laboratory and clinical experience throughout the curric demonstrations and simulations	97.2%
5.5	Students should have the opportunity to learn to apply the clinical and pharmaceutical knowledge tha classroom in practical settings by working under the supervision of a faculty member or volunteer pre other health care professionals and with other scientists.	97.1%
5.6	Students should have the opportunity to participate in internships / rotations with appropriate superv on mutually determined learning objectives.	95.7%
5.7	Students should have opportunities to learn in a wide array of practice environments, including caring patients in various cultural and health state environments.	95.5%
5.8	Non-traditional settings (e.g., regulatory, industrial, non-governmental organisations) are appropriate selective experiential education internships/ rotations.	90.1%
5.9	The culture of risk assessment, risk management and patient safety should be communicated clearly a pharmacist when practising in different settings.	95.5%
5.10	Students should demonstrate the ability and the right attitude to follow confidentiality policies.	97.2%
5.11	Preceptors should be provided with opportunities to contribute to curricular decision-making, assessm activities.	95.2%

Cluster 6 Recursos y Personal Académico

- Recursos y personal académico se refieren al equipo, finanzas, tecnología y recursos humanos necesarios para preparar adecuadamente a los farmacéuticos y científicos farmacéuticos

Cluster 6 Recursos y Personal Académico

Cluster 6: **Resources and Academic Staff**		
Description of the cluster: Resources and academic staff refer to equipment, finances, technology and human resources needed to properly prepare pharmacists and pharmaceutical scientists.		92.8%
6.1	Schools should allocate resources to demonstrate opportunities and disciplines available to both pharmacists an scientists.	94.2%
6.2	Financial resources (public funding, contributions from students and other sources) should enable th pharmaceutical education and training to be met.	94.0%
6.3	The facilities and equipment for practice and science laboratory work should be up to date, in good condition, quantity to allow learners to benefit from practical learning.	98.5%
6.4	Required educational resources and supporting technologies should be available to students in the school.	98.6%
6.5	A safe environment should be provided for faculty staff and learners.	98.5%
6.6	Academic staff should have academic or professional experience that supports their main area of teaching and	
6.7	All members of the academic staff should participate in research activities, including collaborative research.	70.0%

Cluster 6 Recursos y Personal Académico

6.8	Academic staff should demonstrate active participation in sharing their knowledge and promoting collaboratic in their field (and other fields) at a national and international level.	92.9%
6.9	The teaching performance of academic staff should be taken into consideration for their academic advanceme	95.6%
6.10	Academic staff should demonstrate that they continuously update their teaching material so as to ens contemporary aspects and support future developments.	98.5%
6.11	Active learning techniques should be used in the classroom by academic staff.	90.6%
6.12	All academic staff should engage in continuing professional development that is relevant to their work and res	97.2%
6.13	Academic staff at schools should collaborate with preceptors and experiential learning sites to assure quality l	98.5%
6.14	All academic staff should have opportunities to contribute to curricular decision-making.	90.6%
6.15	The school should support and promote the academic staff, preceptors, students and administrators to enga activities with other health sectors.	94.2%
6.16	The school should support and promote the participation of academic staff, preceptors, students and administ and international activities of pharmacy and related experiences	93.8%

Cluster 7 Aseguramiento de la calidad en Educación

- El aseguramiento de la calidad se refiere a los aspectos y mecanismos clave para identificar oportunidades y mejorar la educación en farmacia y ciencias farmacéuticas para asegurar un desempeño bueno y sostenible y las competencias adecuadas de la futura fuerza laboral

Cluster 7 Aseguramiento de la calidad en Educación

Cluster 7: **Quality Assurance in Education**		
Description of the cluster: Quality assurance refers to the key aspects and mechanisms to identify opportunities for and make improvement in pharmacy and pharmaceutical sciences education to ensure a good, sustainable performance and suitable competencie workforce.		97.2%
7.1	A quality improvement programme should be in place at the school and university, and examples of speci should be demonstrated periodically.	95.5%
7.2	Metrics should exist to measure, monitor, manage and improve the quality of the education and training	92.7%
7.3	Quality metrics should include feedback from students and new graduates, faculty, preceptors and key ex such as employers and professional bodies.	79.4%
7.4	An assessment of achievement of learning outcomes by all graduates should occur at the end of the degr should include knowledge, skills and performance assessments in preclinical, clinical and post-approval ph	98.3%
7.5	Policies and procedures support regular review of the curriculum and allow developments in the curriculu timely manner so as to keep up with the changes in the profession, technology and society.	82.4%
7.6	The pharmacy and pharmaceutical scientist degree programmes should be offered at a university level an components (placements) in clinical, industrial and institutional settings are undertaken under the superv	96.9%
7.7	Competencies should be assessed throughout the curriculum, not just at the end of it, and before the inte	87.1%
7.8	A formal system of quality assurance, administered by a government or an independent agency approved should be in place and required for all schools.	95.6%
7.9	The accreditation system should use published standards that have been developed and adopted with bro involvement.	97.0%
7.10	The accreditation system should use policies and procedures that ensure: evaluation by appropriately qua experienced peers; absence of conflict of interest; confidentiality; and fair and consistent application of st	94.1%
7.11	Quality improvement should always include a clear process for handling student concerns/issues/complai so that students are informed of the progress and outcome of any concern that is raised.	

Cluster 8 Desarrollo profesional continuo

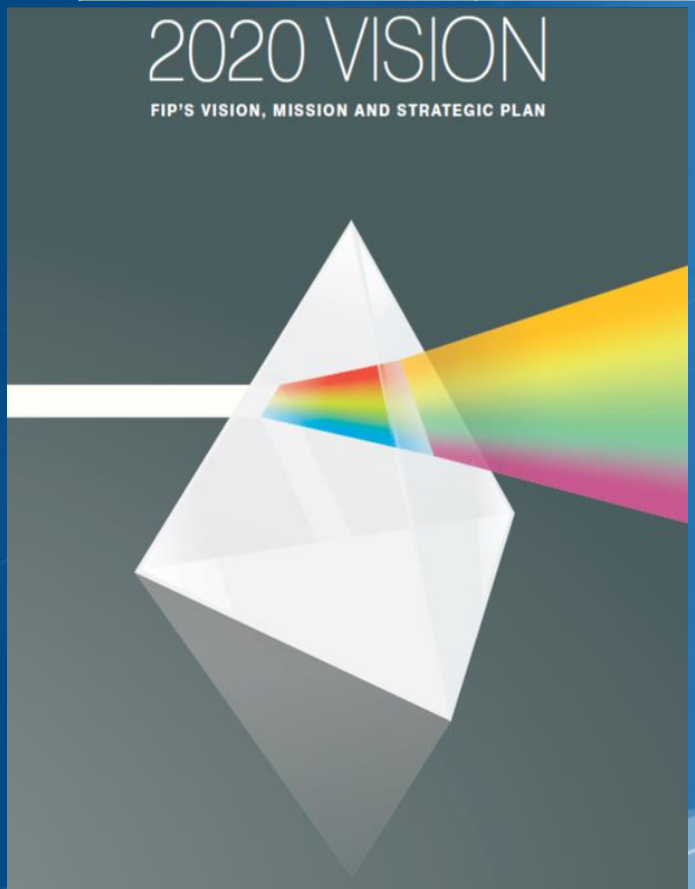
- Desarrollo profesional continuo (CPD) se refiere a la construcción sobre la educación previa como farmacéutico y científico farmacéutico.

Cluster 8 Desarrollo profesional continuo

Cluster 8: **Continuing Professional Development**		
Description of the cluster: Continuing professional development (CPD) refers to building on previous education as a pharmacist and pharmaceutical scientist.		
8.1	CPD should apply both to those in the regulated professional practice and to those working in unregulated pr practice, such as academia and the pharmaceutical sciences.	95.2%
8.2	All members of the pharmaceutical workforce should accept a responsibility to manage their own CPD.	95.7%
8.3	Promotion of CPD should begin with students at the start of their education.	88.5%
8.4	Schools should support CPD for graduated professionals to prepare them for advanced practice roles.	94.4%

Perspectivas

FIP VISION 2020	CENTENNIAL DECLARATION	GLOBAL CONFERENCE	ENGAGEMENT WITH PROFESSIONAL ASSOCIATIONS

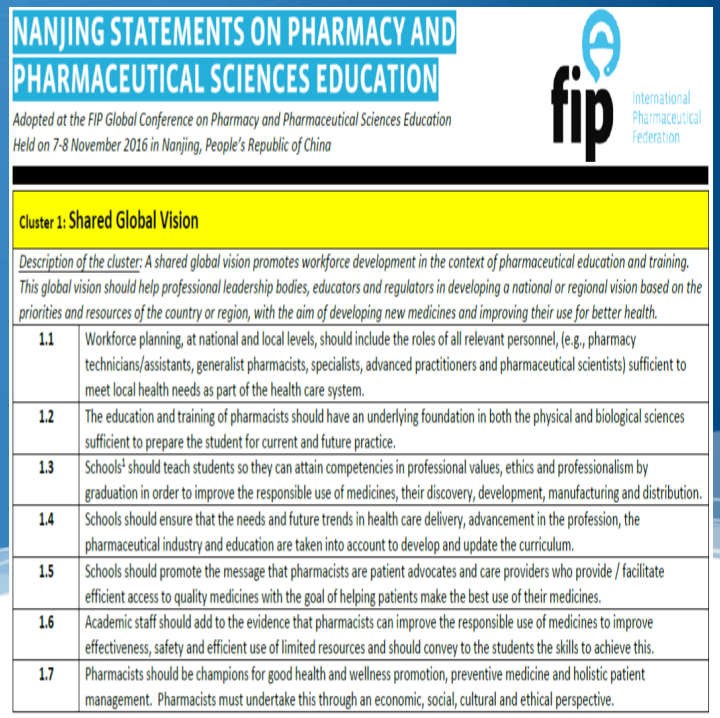


Nanjing China
Global Conference on Pharmacy & Pharmaceutical Sciences Education
7-8 November 2016

¿ ?

Resultados de la Conferencia

- Una visión global compartida
- WDG para soportar la implementación de la visión
- Statements en Farmacia y Educación en Ciencias Farmacéuticas



NANJING STATEMENTS ON PHARMACY AND PHARMACEUTICAL SCIENCES EDUCATION

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PUNTOS CLAVE

- 35 Delegaciones de 36 países
- 45 países representados en la Conferencia
- CONSULTA PUBLICA
- Visión
- Se han recibido 99 comentarios de 31 países
- WFG
- 689 comentarios y sugerencias de 23 países
- Nanjing Statements
- 3216 comentarios y sugerencias de 22 paises

¿Qué reportar a nuestros países?

- Compartir los Nanjing Statements
- Involucrar a tu Universidad con la FIP como Academic Institution Membership (AIM)
- Convertirse en plataforma interglobal de discusión y liderazgo
- Acceso a la información de implementación en diferentes países
- Participar en el evento de liderazgo de la FIP en Seul: AIM´s Dean Forum
- http://aim.fip.org