

IPIJ

The Official Journal of FIP



**Reengineering Pharmacy
Practice in a Changing World**
FIP Congress 2008

**Cancers in Developing
Countries**
The hidden epidemic

**Responsibility for Patient
Outcomes: Are You Ready?**
A look ahead to the FIP Congress
Istanbul, 2009

Great Change, Greater Responsibility

Improved education, higher practice standards and legislative changes are leading to increased responsibilities for pharmacists – are we ready?



The International Pharmaceutical Federation/ Federation Internationale Pharmaceutique (FIP)

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International Pharmacy Journal

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Dear Reader

The world of healthcare is changing, and because so, we are reaching new frontiers never before seen in the history of our profession. The atmosphere in which we practice is crackling with the anticipation of renewal, sparked by an awareness of our potential and a growing shift in the way we are initially and continuously educated.

We can already sense these changes in actions and attitudes, and, as your global leader in pharmacy and pharmaceutical sciences, FIP is making it a priority to be on the front lines of education, practice and mindset reform to respond to the world around us.

And such was the focus of the 2008 FIP Congress in Basel, Switzerland – Reengineering pharmacy practice in a changing world, a theme meant to explore how the pharmacy profession is evolving to meet the changing demands of all stakeholders on the healthcare stage.

From the fact that this Congress was a remarkable one for FIP in terms of attendance and feedback, we seem to have hit on a very relevant and timely issue. As you can read from the reports of the Basel proceedings, everyone involved in the pharmacy profession and pharmaceutical sciences – from students to practitioners to those who teach them – are all concerned with ensuring that we remain imperative to comprehensive health care around the world.

In response to this notion of change, the IPJ is pleased to offer reports showcasing the progress that pharmacists are making on national and local levels. Kudos to our colleagues in Slovenia and Ghana for pushing for

their rightful place on the healthcare team! And in true IPJ form, we counter with a piece examining whether or not we have truly come so far...

A dual purpose of our second Volumes throughout the year is to also look forward. We have explored – in our Congress in Basel and through the experiences of our global colleagues – what changes are happening around us and how. But what does this mean? Where is this all leading us?

First and foremost, it is leading us directly to the next FIP Congress in 2009 in Istanbul, Turkey. Widespread progress in pharmacy education, geared at graduating highly skilled, knowledgeable and competent individuals bringing opportunities of greater roles and responsibilities. And the Congress in Istanbul poses a very loaded question: are you ready?

A question not to be answered here; join us in Istanbul and let us discover the answer together. In the meantime, we hope you enjoy this issue of the IPJ.

Myriah Lesko Editor

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Reengineering Pharmacy Practice in a Changing World **FIP Congress 2008**

Catherine Duggan *reporting for FIP*

“Reengineering Pharmacy Practice in a Changing World” was the title for the 2008 FIP Congress, held in Basel, Switzerland. The scope of the conference was wide, meeting the needs of participants from all the FIP countries. Dr Kamal K Midha opened the Congress with a visionary and exciting speech which spoke of the strategic plan for the Federation - setting high standards of education and practice; using human resources effectively for maximum health gain; raising awareness amongst pharmacists and pharmaceutical scientists of their role in public health, good pharmacy practice and patient safety. The vision of FIP has never been more important - “wherever and whenever decision makers discuss any aspects of medicines on a global level, FIP is at the table” he said.



FIP President Dr Kamal K Midha

In formulating the plan for FIP, Dr Midha explained that the Federation had taken account of external and internal situations shaping healthcare, the profession, the Federation, that healthcare is becoming more patients-focused and there is an urgent need to bridge the gap in healthcare services between developing and developed countries. He also spoke of the growing demand on human resources, both human and financial. Never has there been more of an imperative to reengineer pharmacy for this changing world: the programme for the 2008 Congress was about to unfold.

Even before the Congress had started, the pre satellite workshops set out to address a wide range of professional issues. These included: Process analysis technology: meeting the challenges of pharmaceutical innovation and quality by design in the 21st Century; advances in biotechnology; aseptic and isolator technology, where a wide range of worldwide experts from manufacture, technology and industries challenged participants to consider how best to maximise developments for patients. Others were held to consider novel e-tools for robust design of solid dosage forms which again addressed the key aims of the Congress about re engineering pharmacy for the changing demography of patients.

From a practice perspective, there were pre satellite symposia that considered innovators in community pharmacy practice, specifically how to manage change in community pharmacy, where key speakers and facilitators hosted discussions around the changes

occurring in community pharmacy and the changing needs of the wider population. Different examples from different countries were discussed which provide a wide range of examples to draw upon and reflect the different cultures and systems that exist across the whole of FIP's constituency. Another two-day Global Congress was held to discuss the future of hospital pharmacy, during which time the participants were encouraged to identify and agree core issues for hospital pharmacy around medicines use from supply, prescribing, distribution and safety, to human resources, capabilities and competencies of staff to meet the needs of patients and strategic direction, priorities and collaboration for all participants to achieve their identified goals. So, even before the Congress was up and running, there was a sense that the programme was fulfilling the central aims - that of reengineering the profession for the changing world around us.

And so to the "main programme" which was wide ranging and comprehensive and addressed many issues that affect patients across the world, from counterfeit medicines in Africa; technology and adherence to medications; the role of pharmacists in primary healthcare in the developing world; pharmacists role in vaccination; pharmacists roles in changing health systems; the role of IT in providing solutions in pharmacy practice, advocating on a political level and management issues.

Leading edge science was also presented and discussed; clinical biology from an international perspective, dis- ►

solution testing, preparations for children - a challenge of clinical pharmaceuticals in practice. FIP also provides the invaluable opportunity for networking, nationally, internationally, inter-disciplinary interaction is paramount for sharing good practice and developing the profession for the future. Several Special Interest Groups met up during the Congress to discuss core issues and emerging issues such as the environment and pharmaceuticals, pharmacoeconomics, natural substances, biotechnology, radiopharmacy, biopharmaceutics and performance testing. These are key issues for the future of our profession to ensure pharmacy is central to new drug developments, delivery systems and ensure equity of access. Further sessions around cooperation between clinical biologists, pharmacists and physicians for patient benefit and targeted drug delivery from concept to clinical reality and translational science, research into clinical practice; all of which further emphasised Dr Midha's vision for pharmacy being central to all medicines related issues.



There were sessions reflecting on the broad international heritage of our profession: the history of pharmacy has much to offer us when we reengineer the profession during times of change. These were alongside keynotes on information for patients and discussions around patients being in control of their records; perspectives from different continents on the place for community pharmacy and a forum considering the policy trends influencing the direction for community pharmacy- including medicines use reviews. There was a further session that sought to reach a global consensus on the future for hospital pharmacy all further sought to break down barriers across sectors and across countries to ensure pharmacy is fit for the future needs of patients no matter where they access their healthcare, including the emergency arena in sessions run by the military pharmacy group.

Issues affecting the workforce such as competence, fit for purpose, how to promote lifelong learning in the profession together with professional and regulatory issues around safety; good pharmacy practice and safety and risk management were major themes throughout the congress. One session in particular sought to describe

current issues related to pharmacy workforce, including issues such as migration and how that impacts on planning a workforce to deliver healthcare; fitness for purpose, regulation of pharmacy; reforms taking place in pharmacy education to ensure the workforce is competent to deliver current and future pharmacy services; the role of technology in supporting the safe use of medicines- linking many of the key themes from other sessions and providing a platform for the concept of the entire Congress.

Another session discussed the progress of the Pharmacy Education Taskforce which, since November 2007, FIP, along with the World Health Organization (WHO) and United Nations Educational, Scientific and Cultural Organization (UNESCO), has formed a coordinating body of organisations, agencies, institutions, and individuals with the shared goal of catalyzing actions to develop pharmacy education and works to improve pharmacy education at local, regional and national levels.

The launch of the Pharmacy Education Taskforce was one of the key initiatives of FIP that Dr Midha spoke of in his opening speech, has the task of overseeing the implementation of the Pharmacy Education Taskforce Action Plan 2008-2010. The Action Plan aims to enable the sustainability of a pharmacy workforce that is relevant to local needs and is dedicated to three domains of action: quality assurance, academic and institutional capacity, and competency and vision for pharmacy education. The definition of competence is complex but essentially should be about how, with appropriate acquisition of knowledge and skills, values and behaviours, a pharmacist is able to demonstrate competence over time - to be able to perform in practice. Ensuring that the workforce is fit for purpose is a prime example of how we can re engineer the profession for the future challenges.

Fundamental to ensuring performance, is applying the appropriate knowledge in the appropriate way. Academic institutions and staff are, by definition, the basis of pharmacy education. However, many academic institutions lack the resources and capacity to train sufficient numbers of pharmacists and other pharmacy support staff. Others face poor physical institutional infrastructure where basic facilities may be insufficient or nonexistent. In recent years, the demand for an academic faculty and facilities that can meet the needs of a growing student intake has stretched limited resources even further.

A further session sought to share different approaches to developing higher level practice - the visions, experiences and practice. Core concepts, such as changing demography, increasing complexity of medicines and thereby the risks to patients and the increased role for pharmacy have all raised the need for supporting the development of different levels of prac-

tice in pharmacy - again a key example of how we need to reengineer pharmacy to meet future needs of patients and the public. There is a need to support practitioners to develop knowledge and skills in the workplace to meet the needs of patients across all sectors and at all levels of practice. For this to happen, practitioners need to be able to gather experiences and to undertake CPD that fits with the job they are doing - a meaningful way to translate what they are learning and their knowledge into the care they are delivering. The ethos of such a supportive approach were debated and discussed together with potential barriers and problems of linking workbased learning with educational knowledge based infrastructure were compared across countries.

When Dr Kamal Midha opened the Congress with his visionary speech, he spoke of the strategic plan for the Federation- setting high standards of education and practice; using human resources effectively for maximum health gain; raising awareness amongst pharmacists and pharmaceutical scientists of their role in public health, good pharmacy practice and patient safety. He could not have been more visionary for the days to come - all aspects of his vision were covered and the title “Reengineer-



ing Pharmacy for a changing world” could not have been more appropriate. FIP has surely never been more important or more of a key player at the top table than in 2008!

The FIP Congress 2008 in Basel clearly explored the evolving nature of pharmacy practice and the pharmaceutical sciences. And now the question arises – are we ready for the emerging new responsibilities that come alongside these extraordinary changes? This will be the question when we meet next year at the 69th FIP Congress in Istanbul, Turkey, where we all should be prepared to embrace our expanding role in patient outcomes. ■



Pharmacy Students are Getting Ready

Juha Mönkäre and Zhining Goh

The International Pharmaceutical Students Federation (IPSF) reports on the 15th FIP-IPSF Students Day at the FIP Congress in Basel and explains how advocating for pharmacy has everything to do with achieving patient-oriented, outcomes-focussed healthcare.

Pharmacists are the most accessible healthcare professionals. This is a well-known fact amongst pharmacists, but do others outside the profession realise it? How can the public, policymakers and other healthcare professions be made aware of – and accept and VALUE – this fact? These were some of the questions addressed at the FIP-IPSF Students' Day session this year on "Advocating for Pharmacy". As the pharmacy world is re-engineering itself, it is not enough that only pharmacists observe these changes. Stakeholders external to the profession must realise that the traditional role of pharmacists has changed and will now continuously change to parallel the world it serves.

Advocacy can be seen as slightly abstract and perhaps even unnecessary. However, as stated by Kevin Colgan, President of the American Society of Health-System Pharmacists (ASHP),

decision- and policymakers, in contrast to pharmacists, may not necessarily be well-acquainted with issues and problems within healthcare systems. Thus, they need pharmacists' expertise to find realistic solutions and this often consequently leads to pharmacists taking on advocacy roles to generate policy and practice changes. Dr Colgan reminded the audience that everyone can be an advocate. Advocating is fundamentally easy, particularly when done together with colleagues.

What is advocacy?

Dr Colgan defined advocacy as "identifying, embracing and promoting a cause". He listed six "ingredients" for effective advocacy having a compelling story to tell, practice standards and official position, human and financial resources, research data, relationships with decision makers, as well as agreements with other healthcare professionals - these lay

the ground of advocacy done by professional organisations. To be able to advocate, it is always necessary to have some form of “back-up”, whether it is support from allied health professionals or strong research-based evidence of pharmacists’ positive influence on healthcare. Dr Colgan also reminded that quick advancement should not be expected. Frequent and repeated communication with decision makers will usually be required for goals to be attained.

FIP Vice President Michel Buchmann from Switzerland introduced the different levels of advocacy. The first level is everyday pharmacy practice as our customers and patients, who can include journalists, politicians or administrators working in the field of health, would be able to spread the word about pharmacists’ skills and knowledge, and what they are able to do for the public. The second level of advocacy is lobbying. Dr Buchmann, who is an active politician besides being a pharmacist, told that most lobbying proposals are actually discarded. Thus, to increase the success rate of acceptance, proposals should be well-prepared and aim to promote wider public interest, not only the interest of pharmacists. The third and ultimate level is for pharmacists themselves to become politicians – a noble goal yet understandably rare within the profession.

Advocacy as a tool to improve health outcomes

Public health and primary healthcare are avenues that pharmacists are increasingly involved in across the globe. These new expansions of the profession can give pharmacists a better chance to impact on healthcare and have greater responsibility for patient outcomes. However, if pharmacists wish to take on these new roles they will have to first be able to illustrate the importance of pharmacy to a wider audience.

Cheng Tiang Ng, Immediate-Past President of the Pharmaceutical Society of Singapore, shared how, through engagement with patients, consumer groups and the media, Singaporean pharmacists have advocated for their role in public health. He spoke on chronic disease management, healthy lifestyle promotion and disease prevention as some of the new and emerging roles for community pharmacists, and clinical specialisation and ambulatory care for hospital pharmacists. To meet such new demands, it is necessary to capacity-build through tailored training programmes and continuing professional development to ensure that practising pharmacists are equipped and constantly updated with the required skills.

These new roles can empower and educate people to take responsibility

of their own health and wellness as well, indirectly benefitting the profession as the patient-pharmacist partnership is strengthened. Mr Ng also pointed out the importance of multidisciplinary collaboration amongst the various health professions, as working together not only ensures a holistic approach to healthcare, but it is also a way to promote and showcase pharmacy to our healthcare colleagues.

Advocacy can increase access to healthcare, reduce financial costs and reduce morbidity and mortality and thus people’s health, said Nkechi Anyanwu from LiveWell Initiative, a Nigerian non-governmental organisation that aims to increase health literacy in Nigeria. Dr Anyanwu highlighted that pharmacists should ideally be part of the community they are reaching out to, or at least be involved in them. In practice, this means participation in community events, involving people from communities in taking care of their own health and others’, using easily understandable language and generally being familiar with community culture and practices. Public outreach can lead to the creation of more expectations of pharmacists; expectations that pharmacists are truly taking responsibility for patient care. Ultimately, this could lead to a scenario whereby pharmacists are key providers of healthcare at all levels in public health. ►

Are we ready?

Advocating for pharmacy is a strategy that pharmacists should employ to entrench and reiterate to professional stakeholders how essential we are in healthcare. However, with indispensability comes increased responsibility for human lives, shaping of health systems and usage of economic resources for health. Is pharmacy prepared to take greater charge at the frontline and be more involved in improving the health of populations

and communities? If pharmacists assert ourselves as more than drug experts - therapeutic interveners, entrepreneurs, health educators and promoters in outcomes-focussed preventive and curative healthcare - then we should be able to live up to expectations and deliver in the best interests of the public.

The 16th FIP-IPSF Students' Day in Istanbul 2009, themed "Public Health Role of Pharmacists", aims to answer

to some of these questions. It will seek to explore why and how pharmacists are useful in public health, and the apparent lack of public health focus in pharmacy education. It aims to discover opportunities of mutual benefit to both the public and profession, and to discuss how increased involvement in public health will affect the profession as a whole. As roles and dynamics evolve, it should always be kept in mind that patients' interest is priority when developing the profession. ■

In the EU

Although health legislation is regulated at the national level in Europe, the European Union (EU) plays a key role in steering and influencing the development of health policies. Thus, the EU should be regarded as an important decision maker and lobbying at the EU level is required in pharmacy, as in any other field. Jens Gobrecht, Director of European Representation of the Federal Union of German Associations of Pharmacists (ABDA) presented on current health topics of interest in the EU, such as economic liberalisation of health systems. Dr Gobrecht concluded that steering and regulation are indispensable in health systems, and losing them could lead serious trouble.

The European Patients' Forum (EPF) is among international and regional organisations that promote and empower the patients' position in healthcare. Patient organisations are important collaborators and working with them is a good way of advocating for pharmacy that will benefit the public. EPF actively advances patient involvement at the EU level through projects and programmes in collaboration with non-governmental organisations, industry and health agencies. One example is the VALUE+ project that promotes patients' involvement in EU-supported health-related projects. Nicola Bedlington, EPF Executive Director, gave examples of collaboration between EPF and the Pharmaceutical Group of the European Union (PGEU). EPF and PGEU have worked together within EU on patient safety, electronic health information and patient information. Ms Bedlington also expressed that EPF is very committed in this work and would like to reach out further to European community pharmacists.

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The Basel Statements

Moving the hospital pharmacy agenda forward

Andy Gray *and* Lee Vermeulen



The Global Conference on the Future of Hospital Pharmacy – looking forward

In late August 2008, the Hospital Pharmacy Section of the FIP hosted a successful Global Conference on the Future of Hospital Pharmacy in Basel, Switzerland. This critical consensus-building event was attended by 348 pharmacists from 98 different countries. The aims of the conference were as follows:

- to build a shared vision among hospital pharmacy opinion leaders around the world about the preferred future of hospital pharmacy practice;
- to identify strategic goals for the global advancement of hospital pharmacy that are relevant to the needs of each participating country, and to identify opportunities for global cooperation that will allow every country to achieve their goals for hospital pharmacy; and
- to develop consensus statements on how to best prioritise practice advancements and offer guidance on the development of tools, timelines and tactics for achieving those advancements. ►



The end result of the Global Conference was a series of statements – termed “The Basel Statements on the Future of Hospital Pharmacy” – which encapsulated the elements of a preferred future for pharmacy practice in this setting. More details on the Global Conference and the Basel Statements can be found on the web site: <http://www.fip.org/globalhosp/>

Hospital pharmacy practice – the current reality

Before even embarking on an event of this nature, the Hospital Pharmacy Section recognised the need to “take a snapshot” of hospital pharmacy practice around the world. This was achieved by performing a Global Survey of Hospital Pharmacy Practice. Designing an appropriate instrument for such a survey proved to be a challenge. National and regional surveys have been conducted in the past and have become ever more detailed and intensive.

The American Society for Health-Systems Pharmacists conducts an annual survey, which provides a very in-depth picture of the status of hospital pharmacy practice in that country. The 2007 survey involved the distribution of a mailed questionnaire to a stratified random sample of 1264 pharmacy directors at general and children’s medical-surgical hospitals in the United States¹. Even within a single country, a response rate of just over 42% was achieved. The 2006 survey achieved a response rate of 39%, the 2005 survey a response rate of almost 42%^{2,3}. In each case, the survey instrument is detailed and spe-

cific to the nature of hospital pharmacy practice in a single country. The nature of the data generated is such that each year’s report can only focus on a single issue (prescribing and transcribing in 2007, monitoring and patient education in 2006 and dispensing and administration in 2005, for example).

A biennial survey is conducted in Canada. The 2005/2006 report was based on a sample of 203 hospitals, using a web-based survey⁴. The survey questions were provided over 22 web pages.

Perhaps most importantly, the European Association of Hospital Pharmacists used a regional survey of hospital pharmacy practice as the basis for their inaugural conference in 1996. The third in their series of pan-European surveys was conducted in 2005⁵. This was also achieved by electronic means, and involved the distribution of access codes to 3517 hospital pharmacy managers in 25 countries. Responses were received from 22 countries, but only 24% of hospital pharmacy managers completed the survey. In two countries (the United Kingdom and Sweden) the response rate was too low to allow for their results to be included.

Other hospital pharmacy professional groups have also conducted “snapshot” surveys. For example, in 2005, the Society of Hospital Pharmacists of Australia looked at the available human resources in public hospital phar-

macy⁶. In 2004, the same society looked at pharmacy clinical and distribution service delivery models in Australian public hospitals⁷.

The FIP Hospital Pharmacy Section had to draw on these various instruments, but also limit the scope of the Global Survey, so that it could be completed by a single respondent from each country. Even so, a total of 75 questions were posed, each looking at two dimensions:

- the scope of practice – whether an identified activity was either not in the scope of hospital pharmacy practice in that country; in the scope of hospital pharmacy practice, but not a requirement; or within the scope of pharmacy and a legal or regulatory requirement; and
- breadth of practice; - how commonly the identified practice was performed (i.e. in less than 3% (very few) of hospitals, 3 – 40% (few) of hospitals, 41 – 60% (some) of hospitals, 61 – 97% (most) of hospitals or more than 97% (nearly all) of hospitals).

The basic results of the Global Survey of Hospital Pharmacy Practice, which was supported by a grant from the Board of Pharmaceutical Practice, were presented at the Global Conference on the Future of Hospital Pharmacy in Basel, providing an empirical foundation for discussions at the Conference, supporting the development of the Basel Statements. A more detailed analysis is currently underway and will be reported in early 2009.

The Basel Statements – local action based on evidence

A key design feature of the Global Conference on the Future of Hospital Pharmacy was that the debates were rooted in evidence. Before the Conference, the Hospital Pharmacy Section commissioned the development of six evidence summaries, each reflecting a key element of hospital pharmacy practice:

- procurement of medicines (by Eva Ombaka, Kenya);
- prescribing of medicines (by Lisa Nissen, Australia);
- preparation and distribution of medicines (by Ryozi Oishi, Japan);
- administration of medicines (by Rita Shane, USA);
- monitoring outcomes (by David Cousins, UK); and
- human resources and training (by Tana Wuliji, Netherlands).

While these literature evaluations represent the “state of the art” in a global sense, they cannot adequately represent the local situation in a particular country, or even a region. Equally, the Basel Statements cannot be translated into effective local action without a clear understanding of the local situation. The overarching statements are applicable everywhere: the first states simply that “The overarching goal of hospital pharmacists is to optimise patient outcomes through the judicious, safe, efficacious, appropriate, and cost effective use of medicines.” Applying several of the others requires an

appreciation of local barriers or enabling provisions. For example, applying the statements that “Hospital pharmacists should be allowed to access the full patient record” and that “Undergraduate pharmacy curricula should include hospital-relevant content, and post-graduate training programs and specialisations in hospital pharmacy should be developed” may require amendments to legal statutes or to prescribed curricula. The situation in relation to either may vary considerably in different settings.

In order to promote local action, the FIP Hospital Pharmacy Section is encouraging national and regional groups to evaluate practice issues more locally. While the FIP Global Survey of Hospital Pharmacy (and other national or regional survey efforts) may provide valuable information for individual nations and regions, effective planning will require more detailed local information. In order to support these efforts, the FIP Hospital Pharmacy Section has planned a session at the 69th World Congress of Pharmacy and Pharmaceutical Sciences, to be held in Istanbul, Turkey in September 2009. Invited speakers who have been intimately involved in the US and European hospital pharmacy surveys as well as the FIP Global Survey will present on their experiences, and then the session will explore how the results of such surveys can create benchmarks, drive improvement projects, and foster international collaboration. They will also explore the practicalities of designing and applying a national instrument in their own settings, while considering the opportunities for continued collaboration on international survey efforts. ►



Taking the Basel Statements from global consensus positions to living documents in each country, to effective application in action, and to ultimately achieving better outcomes for patients will require continued effort over many years. Measuring not only where we are now, but where we have reached as we progress will be crucial. In his reflection on the "Direction for Clinical Practice in Pharmacy" Conference held at Hilton Head Island in 1985, Bill Zellmer wrote that: "Directors of pharmacy departments should launch consensus-building efforts within their departments through which strategic plans can be developed to increase pharmacy's clinical thrust. If all pharmacists in a department participate in the development of a clinically focused strategic plan, they will have a greater commitment to the success of that plan. If pharmacists see themselves as practitioners of a clinical profession, they will speak and behave accordingly, and others will perceive of them as clinical professionals."⁸ Hospital pharmacy has moved beyond the clinical focus outlined in 1985, to take responsibility for all medicines in the hospital, everywhere, and at all times. However, they will still need to critically examine their performance against those goals, both now and in the future. National and regional surveys will be needed, and in time, a repeat of the Global Survey will also be needed to track progress. The necessary tools may not exist at present, but the means to develop them lie at hand. ■

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Engineering Clinical Pharmacy in Slovenia

Lea Knez

In Slovenia, a young and small European country, clinical pharmacy is still at its beginnings and with not many pharmacists practicing it. In this article I want to share with you the story of my first steps into clinical pharmacy, and, I believe, that my story is similar to many other stories around the Globe.

1. Learn from the more experienced

When I started working at the University Clinic of Pulmonary and Allergic Diseases Golnik in March 2007, I felt lost and disoriented to the point that achieving a level of knowledge and practice needed to perform clinical tasks seemed unreachable. The contact with more experienced pharmacists was essential for overcoming this feeling. The guidance of Maja Jošt and Tina Morgan, who had started walking the clinical pharmacy path three years earlier, was very precious. But since clinical pharmacy had not yet reached an advanced level in Slovenia, I needed to complement their guidance with experiences from a health system, where cutting edge clinical pharmacy was being practiced. My undergraduate experience in London, where I had had the chance to work with Dr Raisa Laaksonen and Dr Catherine Duggan, served this purpose.

I found it essential to have a role model to look up to, and to be familiar with the well established practices in order to know what to aim for. Starting a career in clinical pharmacy is really demanding. However, you can ease

your way, if you learn from the more experienced. It may not be possible to have more experienced pharmacists in your working environment, but you can grab the chance to get in contact with one of them at any FIP event! I had the chance to attend the Global Conference on the Future of Hospital Pharmacy and my first FIP congress in September 2008, and I returned home one hundred percent motivated to implement the presented ideas.

2. Make the physician your friend

When I gained the needed professional confidence and started performing different clinical activities on the wards, everything became more complicated. I realised that having the needed knowledge to propose sensible interventions was not enough to improve patient care: you needed to be able to convince the physician to accept your proposal. Finding a way to communicate and collaborate with physicians was one of my biggest obstacles.

Indeed, engineering clinical pharmacy in a changing world is a big change, especially in a clinical pharmacy native environment. In every change,

there are always some people that are very contrary to it and people that are very enthusiastic about it. Unfortunately, I could not select the physicians I wanted to work with, so I put into practice the advice given by Prof. Graham Davies. In one past occasion he had advised me to establish a friendly relationship with the physicians, so I decided to invest more energy into the collaboration with the supportive ones. After discussing together the different aspects of my work, their needs and expectations, and transferring these into my practice, everything became easier!

Although disagreement with the reports of my ward activities was always present, the reports of the research projects run in collaboration with the Faculty of Pharmacy of Ljubljana were accepted with much appreciation despite their critical evaluation of the current practice. The research projects were designed by pharmacists and physicians, to study current problems. The results of the projects were presented at the 4th Slovenian Pneumology and Allergology Congress 2008. Although the presented results evidenced areas in drug use that need improvement, the physi- ►

cians were enthusiastic about the proposed realistic solutions, which were addressing problems they were interested in. The importance of research for every hospital pharmacist was highlighted many times during the Global Conference on the Future of Hospital Pharmacy held prior to this year's FIP Congress. And the above described experience is indeed a proof of the importance of using research to improve current practice. Moreover, it shows that by doing so we can also promote our expertise between other health professionals and influence patient care.

Another point underlined during the Global Conference was the role of pharmacists in providing orientation and education for nurses and physicians. It may be a strange coincidence that after hearing these ideas in Basel, pharmacists at my hospital were given the chance to prepare a workshop on clinical pharmacokinetics for physicians in collaboration with the Prof. Aleš Mrhar from the Faculty of Pharmacy of Ljubljana. The principles of pharmacokinetics were applied to clinical scenarios that were familiar to the physicians: titration of morphine, therapeutic drug monitoring of gentamicin and drug interactions with warfarin therapy. The participants were enthusiastic! And, demonstrating how our pharmacy expertise can be used in every day practice, the pharmacy phone has been persistently ringing with new drug related questions.

3. Disseminate good practice

After establishing a good level of collaboration with physicians and receiving a very positive feedback of our workshop, I really wanted to share this success with other pharmacists working as clinical pharmacists in other hospitals around Slovenia. In fact, the president of the Section of Clinical Pharmacists of the Slovenian Pharmaceutical Society, Nataša Faganelli, proposed, that every small achievement accomplished or problems embraced on a local level should be presented on a national one. This way we can support and motivate each other, and proceed to-

gether towards the common goal of implementing clinical pharmacy on a national level!

The vision on hospital pharmacy of the Global Conference will guide us and the relevance of the globally agreed statements will facilitate our negotiation with the different health authorities. Empowering pharmacists in the community and hospital is the way to increase our contribution for patient care in Slovenia. Increasing our contribution to patient care, we have to take the responsibility for patient outcomes, so I cannot wait to listen how these ideas will be presented at FIP 2009! ■

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Cancers in developing countries

The Hidden Epidemic

Edward O. Amporful

In the past I had regarded the field of oncology as a rather strange feature of non-communicable disease. Indeed, as a health professional in a developing country, it is very easy to relegate cancer to the background of normal practice, considering the flurry of activity around HIV/AIDS, tuberculosis and malaria. But I was compelled to change this perception over the course of time as a hospital pharmacist. The change became complete following my affiliation with the Cancer Society of Ghana (CSG). Over the past few weeks I have been startled by the information gleaned on cancer, a staggering burden in developing countries. ►

Cancer Burden

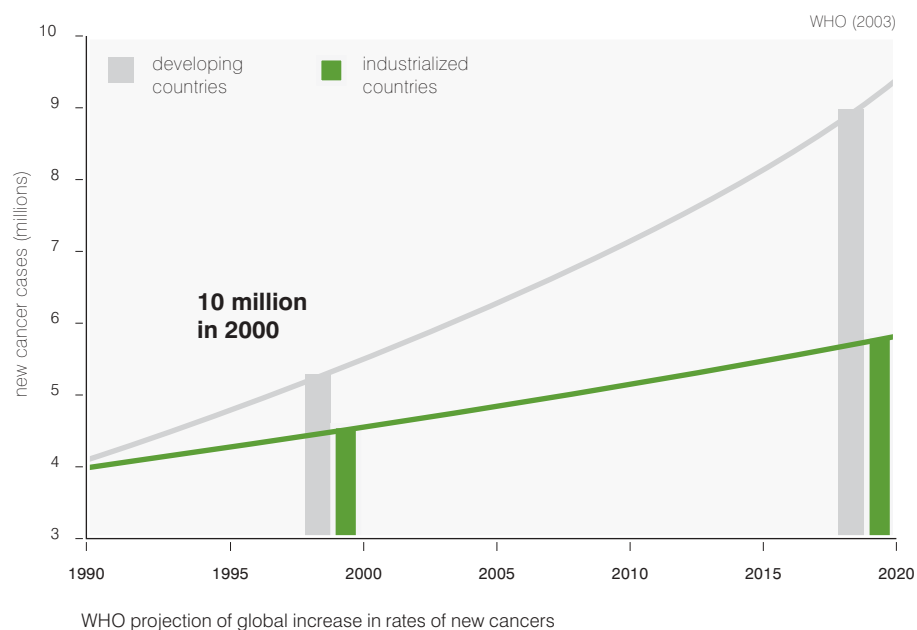
There are more deaths due to cancer per year than the annual total deaths from HIV/AIDS, tuberculosis and malaria. According to the WHO report of 2003, there were over 7 million can-

cer deaths as compared to about 5.5 million total deaths from HIV/AIDS, TB and malaria together.

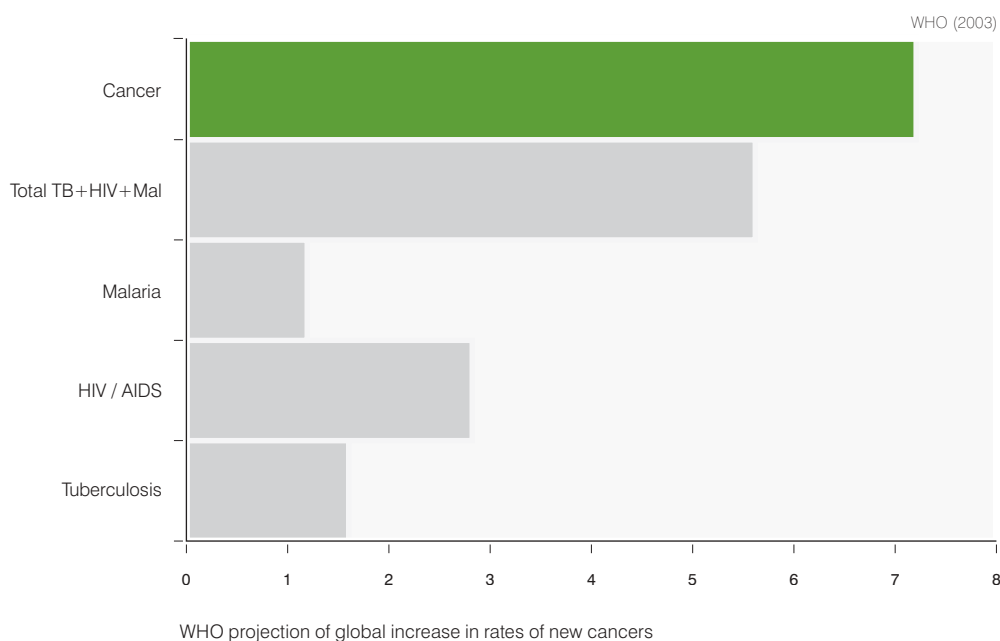
I am sure that many colleague pharmacists from developing countries have always regarded cancer

as a disease of affluence, and therefore the prevalence of cancer should be higher in advanced countries. One could not be farther from reality! More than 70% of cancer deaths occur in low and middle-income countries.

New cases of cancer annually



Millions of deaths 2002





It is estimated that, based on current trends, by the year 2020 there will be 16 million new cases of cancer per year and 10 million people will die from cancer each year. Of these, developing countries are likely to bear the brunt of the crippling effects of cancer across the globe.

Responding to the Challenge of Cancer in Europe

It seems that the advanced countries have over the years developed aggressive measures to confront the cancer burden. The European Union's 2008 document titled "Responding to the challenge of cancer in Europe" details the union's measures adopted to fight against cancer. Among other things, it affirms the adaptation of strategies proven effective against other diseases to comprehensively prevent and control cancer. It further emphasises the need to promote healthy lifestyles and reduce exposure to risk factors associated with cancer in order to prevent cancer. The document also stresses the need for early detection of cancers that cannot be prevented. There is also a strong drive towards

providing the best possible treatment and care to cancer patients, exchanging information on best practices for diagnosis, treatment, rehabilitation and palliative care. The strategy also seeks to encourage research that aims to identify the causes of cancer and to develop better strategies for prevention, diagnosis, treatment and cure.

Challenges of Cancer Control in Ghana

Lack of awareness coupled with cultural practices and beliefs are significant barriers to cancer prevention and control in Ghana. In the course of a month-long cancer screening programme by the Cancer Society of Ghana (CSG), a number of women with obvious signs of breast cancer defended their failure to seek early assistance from medical facilities for various reasons. They believed the intervention at the medical facility -- the removal of the breasts -- would result in death, mentioning friends who died soon after their breast were removed at the hospital.

Another formidable challenge is the

apparent lack of a database on the cancer situation in the country. A reference to a study conducted by the department of pathology of the Korle Bu Teaching hospital underpins the dearth of cancer intelligence in Ghana and Africa as a whole. The study involved a retrospective review of autopsy records of the Department of Pathology and medical certificate of cause of death books from all the wards of the Korle Bu Teaching Hospital (KBTH), Accra, Ghana during the 10-year period 1991-2000. The study identified the need for development of a robust intelligence network (establishment of registries) on cancer.

Another area critical to cancer control is the provision of adequate infrastructure. Ghana currently has two radiotherapy centers for a population of over 20 million. There is also a serious shortage of the requisite health workforce for cancer prevention and control in Ghana. To date, the Greater Accra Region (the region where Accra, the capital of Ghana is situated) has only two established ►

screening centers for breast and cervical cancers. There are very few trained oncologists in the country. Therefore, training of health workforce must be multidisciplinary.

Referral systems are also weak and therefore many cancer cases arrive at the specialist clinics at advanced stages. It is generally acclaimed that successful and effective cancer treatment is hinged on early intervention.

Chemotherapy forms a key aspect of cancer treatment and yet very few pharmacies are appropriately resourced to provide highly specialized anti-cancer medicines. It is not unusual to find clients waiting for initiation or continuation of chemotherapy due to non-availability of anti-cancer medicines.

Preventing Cancers

All these factors reinforce the need for increased efforts at preventing cancers. It is known that about 40% of cancers can be prevented through avoidance of certain risk

factors – tobacco smoking, obesity and physical inactivity, consumption of diets high in fats, exposure to some carcinogens (such as cadmium), high consumption of alcohol, undue exposure to the sun. Since many cancers are due to 'faulty' genes, early detection and screening is highly imperative for people with a family history of cancers. Some cancers (e.g. prostate) are also associated with ageing and therefore underpin the need for routine screening in men above 40 years of age. Infection with viruses such as hepatitis B and human papillomavirus (HPV) identified as the main causes of liver and cervical cancers respectively could be prevented by appropriate immunization.

Addressing the Challenges

The first step is education to create awareness and remove all barriers hindering self-examination, early detection and screening. The initiative of the Pharmaceutical Society of Ghana (PSGH) in promoting immunization against the hepatitis B virus could be extended to im-

munization of females against HPV. In Ghana there is clear that the increased awareness of hepatitis B is largely due to the campaign launched by the PSGH five years ago. It is also true that this initiative compelled many health care professionals to update their knowledge and skills in the management of Hepatitis B infection.

The gastro-enterology clinic at Ghana's premier hospital, Korle-Bu Teaching Hospital, has improved on its infrastructure due to increasing demands from the public as a result of the PSGH initiative on Hepatitis B. There is the need for increased training of health workforce in the field of oncology and an equal need for expansion and improvement in infrastructure of the health care delivery system. The active collaboration between the PSGH and some multinational pharmaceutical companies resulted in the training of a core group of pharmacists for the PSGH-led initiative against Hepatitis B.

Effective cancer prevention and control will be a mirage if steps are

not taken to develop robust, efficient and reliable cancer registries. It is common knowledge that intelligence is key to the effective control of the cancer. Health intelligence tends to be relegated to the background and only belatedly realized as important to the sustainability of the health programme. It is only through such registers that we can monitor and evaluate the programme. It should be possible to set up systems within both the public and private sectors of pharmacy practice to allow for active knowledge and skills transfer. It has been possible with the management of tuberculosis in Ghana and therefore should be easy to adapt for cancer control.

There must be a pool of pharmacies/pharmacists positioned to render specialized services in oncology for the mutual benefit of both service providers and clients. A solid cancer registry is vital to the supply management of anti-cancer drugs.

Laboratory investigations and interpretations should be of utmost interest to pharmacists. It dovetails with the capacity to provide efficient and effective pharmaceutical care. Any pharmacist engaged in the hepatitis B programme will attest to the subtlety of the viral markers in the management of Hepatitis B infection. Many cancers have key laboratory markers crucial to their monitoring and evaluation.

The news of cancer even in developed systems can be disconcerting for the affected person. It calls for a very good support system, such as palliative care, to assist the person through the throes of the disease. The support systems demonstrated in HIV/AIDS could easily be adapted to cancer care. Palliative care is highly critical in cancer control. A recent encounter with a breast cancer survivor reinforced the fact that contrary to what many assume, palliative care goes far beyond pain relief. Through palliative care the pharmacist is not only seen as a member of the healthcare team but, more importantly, as a member of the affected

person's family.

It is against this backdrop that the efforts of the Africa-Oxford Cancer Consortium (Afrox), in partnering the Cancer Society of Ghana to increase awareness on the cancer burden, deserve commendation. The Africa-Oxford Cancer Consortium (Afrox) is a new organisation which seeks to provide broad support and guidance on the design, delivery and funding of sustainable national cancer plans in Africa. Afrox facilitates educational and training efforts by the international cancer community. It also works with partners (governments, NGOs, pharmaceutical industry and cancer charities) to fund cancer control initiatives in Africa.

In Ghana, Afrox through the Cancer Society of Ghana (CSG) is supporting the establishment of Cancer intelligence units, or cancer registries. Afrox is providing support for the early diagnosis and prevention of cancers, like the recent month-long cancer awareness programme. Afrox is keen on using Ghana as a platform for other cancer initiatives in Africa.

Furthermore, Afrox is committed to providing therapeutic support for breast, cervical, prostate and childhood cancers. It is also supporting the expansion of palliative care programme in Ghana.

Through the European Society of Medical Oncology (ESMO), Afrox is to facilitate training of health professionals in Ghana and Africa. Over the next decade, Afrox plans to provide cancer intelligence on up to 250 million Africans and provide early cancer detection and vaccination in order to prevent 100,000 deaths in Africa. It also aims to save the lives of 5,000 children through the organization's paediatric cancer treatment programme. Expansion of palliative care is also projected to ease the lives of some 100,000 people with terminal cancer over the next ten years.

It is imperative for the Afrox project to succeed in reducing the cancer bur-


den in Ghana and Africa as a whole. It is also important for colleague pharmacists to get on board quickly in order to curb the cancer epidemic in Africa. ■

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Look how far we've come, or have we?

The Students' Perspective

Meghan Craddock *and* Melanie Green

It's an exciting time to be a part of pharmacy, at least that's what our professors are telling us. Looking forward to the future it appears the profession is going through major changes, from dispensing medications and technical duties to providing pharmaceutical care and stepping from our traditional role. Governments, patients and other health care professionals are beginning to realise the important role we play as medication experts. It cannot be denied that pharmacy has a larger role within the health care system. This role has been much underutilized in recent years and is now coming to the forefront of the public's and the health care system's perception. Will pharmacy step into the spotlight and take what is rightfully theirs? Have we changed enough within the profession in order to embrace our new roles? Are we ready to fulfill our potential? How far have we really come?

Pharmacy, as we know it today, can be traced back to as early as the 13th century when the first pharmacies were established. In the beginning, pharmacy was regarded as a mix between health care and chemical sciences and pharmacists ensured the safe and effective use of medica-

tions. In the early 1900s, pharmacy continued to fulfill the role of an apothecary; formulating, dispensing and evaluating medications prescribed by physicians and sometimes offering general medical advice to patients and physicians. This role started to disappear once pharmaceutical industries took over the production of medications in the 1950s. This constricted the role of the pharmacist significantly. It wasn't until the 1960s that pharmacy began to evolve into a more patient-orientated practice and developed the concept of clinical pharmacy. The concept of clinical pharmacy eventually evolved into "pharmaceutical care" in the 1990s. Pharmaceutical care can be defined as "the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life" while optimizing drug therapy. However, pharmaceutical care has many more components. It involves pharmacists being recognized as "drug experts whose role is to work in collaboration with patients, physicians, and other health care professionals to optimize medication management to produce positive health outcomes". This also allows for pharmacists "to exercise professional judgment and accept

responsibility for the quality of drug-related patient care outcomes". By the 1990s, the implementation of pharmaceutical began to take hold. In 1993, the FIP conference in Tokyo, Japan, increased popularity of the term "pharmaceutical care" and contributed to the widespread use by defining the role of pharmacists in the health care system and providing guidelines aiding pharmacists to successfully modify their practice towards the ultimate goal of pharmaceutical care. More recently, hospitals have begun to exercise this concept with community pharmacies following closely behind.

Pharmacy has become an integral part of the health care system and its role is expected to increase even more throughout the next few decades. Prescribing, medication reviews, consulting, ordering laboratory values and monitoring these values are examples of roles and activities pharmacists are leaning towards during the evolution of our profession.

Leaders in pharmacy health care reform include the United Kingdom who established supplementary prescribing by pharmacists in 2001 and independent prescribing rights in 2006. In Canada, the province of Alberta achieved independent prescribing rights in 2007 and other provinces will soon be granted these rights. The Government of Ontario has granted approval for pharmacists to provide patient specific medication reviews while providing compensation. These steps (among others) have led us closer to our goal of pharmaceutical care, which may include improving access to drug therapy, optimizing patient outcomes and alleviating some of the burdens that the health care systems face today.

While we strive towards changing our role as a pharmacist, we have to consider the barriers that exist. Barriers, which lie in opposition of changing our profession, involve the need for increased education and training, the workplace environment, legal requirements (considering the degree of increased responsibility), and resistance from the public and other health care professionals, who may feel that pharmacists are intruding on their territory. More importantly there may be resistance to change from within our own profession. This struggle within our profession may be the deciding factor in determining whether pharmacy reaches its potential. Older generation pharmacists may cling to the traditional practice of pharmacy. They may feel comfortable and content in their current roles and resist opportunities for advanced education and training. In order to make the required steps we need to unify as a profession and strive together towards these goals. Recent graduates from faculties of pharmacy around the world are proving to be a different generation of pharmacists, this may be related to the fact that the curriculum has evolved to be more patient focused with the emphasis on pharmaceutical care.

So the question remains, have we really changed as a profession? Most pharmacists are still currently dispensing

medications while not fulfilling their potential as medication experts and performing the desired patient orientated duties. This underutilization of our medication knowledge has led us to fall short in the area of prescribing and pharmaceutical care while other professions, with less drug knowledge, gain rights to prescribe. Pharmacists are conscious about the need for change within their profession but most of us are not taking the steps required to be part of the reform. It will be our own actions that determine the future and changing our mentality, together as a unified profession, will put us in the right position to move away from primarily dispensing prescriptions to providing pharmaceutical care. ■

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Development of Pharmacy Education in Mexico

Shifting the focus to patient safety

Marina Altagracia-Martínez, Carmen Giral Barnés *and* Jaime Kravzov-Jinich

Since 1843 professional pharmacists have been trained in Mexico, however insufficient numbers are graduating to cover the needs of the pharmaceutical industry and the health care system, especially with regards to those trained in pharmacy practice and focused on patient safety.

It is clear to everyone involved in the pharmaceutical profession that the country needs to appropriately train individuals in pharmacy practice in order to best contribute to a changing world. In 2008, a new, huge joint programme emerged among universities and health government authorities in Mexico to prepare, within a year, 3000 pharmacists specialised in patient safety. ►

Brief History

The first professional pharmacists in Mexico were trained under Dr José María Vargas, who began his more than 40 years of pharmacy teaching in 1833. Dr Vargas laid the foundations of modern pharmaceutical education in Mexico¹.

Between 1831 and 1833, the degree granted by the Federal District Faculty of Medicine and the School of Medicine was that of '**Master Apothecary**', and from 1833 to 1919 '**Pharmacist**'.

The first Mexican Pharmacopoeia was published in 1846 by the Mexican Pharmaceutical Society and edited by Leopoldo Río de la Loza². In 1850, the school of pharmacy, part of the Medical College, was located in the Ex-Convent of San Hipolito.

In 1855, under Leopoldo Río de la Loza, the school was moved to a new home in the Public Welfare Central Warehouse for Medicines. The pharmaceutical programme suffered the effects of the French occupation which lasted from 1862 to 1867.

In 1916, on September 23, the National School of Industrial Chemistry was officially opened, although classes had already started at the Advanced School of Chemical Science in Tacuba on April 3. On February 5, 1917, the National School of Industrial Chemistry was incorporated into the University, and on December 25 became part of the Faculty of Chemistry.

In 1919, the School of Medicine's Faculty of Pharmacology joined with the Faculty of Chemistry, and Adolfo P. Castañares was appointed director of the new National School of Chemistry and Pharmacy³.

On June 20, 1920, Roberto Medellín was appointed director of the National School of Chemistry and Pharmacy. Dr Medellín proposed that the school be called the Faculty of Chemistry and Pharmacy, the name which it has retained since then.

In 1921, the school offered programs to train pharmaceutical chemists, chemical technicians and metallurgical assayers. In 1926, the Chemical Technician program was removed and the Chemical Engineering program substituted, and a program to graduate chemists was proposed for the first time².

In 1929, the decree creating the National Autonomous University of Mexico (UNAM for its initials in Spanish) was issued.

The years 1933 and 1934 were very eventful in public education, including changes in higher education. This included curricula modification in all programmes. In 1937, the Pharmaceutical Chemist program was

changed to the Biological Pharmaceutical Chemist program, which it still is today.

In 1938 Mexico's petroleum industry was nationalised, causing the departure of many foreign technical professionals, which provoked a great demand for chemical engineers. As a result, in 1945 the National Autonomous University of Mexico Act was declared (which is still in force today), creating the National School of Chemistry. The Faculty of Chemistry and Pharmacy was never restored.

In 1957, following a significant revision of programs and curricula, second-year students and Faculty of Chemistry students began to move to the new University City (CU) campus of the UNAM.

Twentieth and Twenty-first Centuries: Reengineering pharmacy practice education

There is a variety of bachelor degree programs related to pharmaceutical sciences in Mexico but the majority of pharmaceutical graduates are biological pharmaceutical chemists (QFBs). In 2001, there were 38,000 QFBs in Mexico, and a similar number in 2004; a number insufficient to cover the needs of the pharmaceutical industry and the health care system; about 2000 QFB students graduate every year⁴.

It is clear to everyone involved in the pharmaceutical profession that the country needs to appropriately train individuals in pharmacy practice in order to best contribute to a changing world.. A document titled "Toward a comprehensive pharmaceutical policy in Mexico" addresses this important issue and proposes some strategies for the coming years. One of these is recognition of the need to focus on patient care. It was found that 70 to 80% of all prescriptions dispensed by non-professionals were incorrect⁵. The document established a goal of including a pharmacist in 10% of all public health institutions with more than 60 beds in the current year (2006), and a pharmacist in every hospital with more than 60 beds within the following six years. In addition, a pharmacist would be included in every community pharmacy in cities with populations over 5000 (10% in 2006; to be increased by 10% every year until the goal of full coverage is reached). The 2006 goals established in the before mentioned document had not yet been reached.

The pharmacy policy document proposes an ideal pharmaceutical care system as a goal, but much work is needed if the goal is to be achieved.

In 2008, much in parallel to discussions that took place at the FIP Congress in Basel, Mexican government health authorities are focusing on reengineering pharmacy practice and a special programme is going on to build 12 hospitals and to educate 3000 hospital pharmacists to improve patient care and safety. Public recognition

has been made of pharmacists' worldwide contribution to health systems and to patient safety. All new hospitals will have hospital pharmacists and pharmaceutical care services and will be located in every state of the country. This public statement is one of the results of globalisation but more importantly of the recommendations made by the World Health Organization (WHO) and The International Pharmaceutical Federation (FIP).

Three model hospitals including pharmacy practice and services are already built in the states of Guanajuato, Chiapas, Hidalgo and Mexico City.

Mexico is made up of 31 states and one federal district. Almost every state has a programme related to pharmaceutical sciences. In spite of the fact that pharmaceutical manufacturers are concentrated in the Federal District (Mexico City), many state university pharmaceutical-related programs are industry-oriented, and some to clinical analyses (mainly microbiological and parasitological)⁶. State universities could leverage a largely untapped potential by establishing clinically-oriented pharmacy programs to train graduates equipped to work in public and private health care institutions.

At present (2008), there are six Mexican institutions which train pharmacists (Baja California—the program was changed but not the bachelor degree name, Coahuila, Morelos, Nuevo Leon, Pachuca-Hidalgo and Puebla). Morelos has a faculty of pharmacy and a graduate programme in pharmacy. All undergraduate pharmacy programmes include practices in community and hospital institutions (community and hospital pharmacies). Students currently face substantial problems in completing the practicum because of certain medical restrictions. It also takes a year longer to finish the bachelor degree program with the practicum.

Mexican Council for Accreditation of Pharmaceutical Education (COMAEF)

Since 1994, Mexico has been a member of the North America Free Trade Agreement (NAFTA) and is thus subject to NAFTA recommendations. Knowledge has become the single most important factor in economic development and global competitiveness, and Mexico must harmonise with the world, starting with North America⁷. ►



As a result of NAFTA and globalisation, Mexico has followed the following scheme:

- Professional services, defined as services which need higher education to be performed;
- Follow WHO, Free Trade Agreements, Mutual Recognition Agreements (MRAs) and globalisation.

Mexico has begun the difficult process of assembling the jigsaw puzzle of accreditation, certification, and harmonisation and licensing. The main pieces of the “puzzle” are education; health care and links to international recommendations (FIP good professional practices), health needs, and national recommendations, advancement in science and technology, research and higher education trends.

Conclusions:

Although Mexico has had pharmacy programs since the eighteenth and nineteenth centuries, to date few schools have pharmacy programs oriented toward patient safety.

Finally, in 2008, WHO, FIP and Free Trade Agreement recommendations are being increasingly implemented to prepare three thousands pharmacists for patient safety and care. The Mexican government health authorities are inviting all actors and pharmaceutical organizations to participate in the effort to reengineering pharmacy practice in Mexico. ■

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Challenges in Educating Pharmacists in the Western Pacific Region

Wai Keung Chui

Considered to be one of the more diverse WHO regions, the Western Pacific Region is inhabited by some 1.6 billion people of different ethnic and cultural backgrounds. There are 37 member states in the WPR of which some are highly developed countries while there are a few which are fast growing economies.¹ It is not unexpected that the level of pharmacy practice and practice model vary across the member states.

Nevertheless, it is the main aim of the pharmacy profession that regardless of locality, people in this region must have access to optimal pharmacy services. Pharmacy services should provide affordable pharmaceutical products that are supplied timely through a secure chain that assures quality of the products. In addition, pharmacy services should also ensure that the most effective therapeutic outcomes are achieved within safe measures, so that the people will reap maximal benefits from their medicines. In order to achieve these goals, good pharmacy practice must underpin the services rendered to the people. Therefore the provision of a good pharmacy education is essential to help build a strong foundation in scientific knowledge and a competent level of practice for the graduates to enter the profession.

So what is “good pharmacy education”? Is it a process that just imparts knowledge or should it be one that also ensures that a minimum standard of practice competency is achieved as a learning outcome? If education must provide knowledge and skills in practice, then the next

question to ask is what is the practice model in the country? Will the graduates be able to apply their knowledge and skills readily when they enter the profession upon graduation? What are the responsibilities of the pharmacists in terms of patient care? These are certainly very pertinent questions to consider when developing a relevant education for pharmacists. It is very clear that education and practice are closely linked.

While countries in the WPR are aware of good pharmacy practice, the provision of a good pharmacy education is still an issue in some countries. There are developing countries in the region that are making attempts to revamp their educational approach and curriculum, some trying to ‘transplant’ educational models from highly developed countries. Is this the best way to develop pharmacy education? Is an educational model from highly developed country suitable for a country that may not have an equivalent level of practice or practice model? These are certainly some very practical issues and challenges that surround the development of pharmacy practice and education in

some countries of the WPR. On the other hand, some highly developed countries in the WPR are beginning to prepare pharmacists for prescribing roles. So how should the educational process in these countries evolved to accommodate this change in practice model which requires greater responsibility for the pharmacists? The development of pharmacy practice will need plenty of support and resources. Time is also needed to allow the practice to evolve, be accepted by the society and mature. The education and training of the human capital to support the change in practice will have to carry on concurrently. This is done to ensure that the trained manpower will be able to use their knowledge and skills when they enter the arena of practice. Somehow the two activities must be aligned and synchronized in order to be effective. While this may be the ideal strategic approach, some countries in the WPR are still faced with numerous challenges of how to deliver quality education in time and effectively. There is just insufficient supply of teaching resources in some countries. For example there are limited access to low priced textbooks, refer- ►

ence literatures, scientific equipment and personal computers. Modernized teaching facilities like scientific wet laboratories and practice laboratories are very much needed. Most importantly, qualified teaching staff and practicing preceptors are highly in demand for a modernized pharmacy education, and these human resources are scarce in the region. In addition, staff development opportunities are lacking to enable existing and new staff to learn about curriculum development and teaching pedagogies that are relevant for practice.

Since its formation in 2001, the Western Pacific Pharmaceutical Forum (WPPF) has been interested in advancing pharmacy practice and education in the region. The WPPF has visited member countries in the WPR to promote good pharmacy practice. In addition, the WPPF has also conducted train-the-trainer workshops on professional communication and patient counseling. These workshops were held in the Philippines and Vietnam with the support of the WPR Office. The WPPF has also conducted a survey that reviewed the pharmacy undergraduate educational models

and registration/licensing requirements for practice of the countries in the WPR. With the support from the WPR Office, the forum has also published a statement that advocates pharmacists to contribute effectively to public health services and that topics related to health promotion should be included in the undergraduate curriculum. The WPPF is making every effort to facilitate the sharing of experiences in practice and education among the member states in the WPR. This is done with the vision that pharmacists in the WPR are able to take greater responsibility for optimal patient care.

In March 2008, a Pharmacy Education Taskforce was set up with the support of the FIP, UNESCO and WHO to work collaboratively in improving global pharmacy education through a Pharmacy Action Plan 2008-2010. The WPPF fully supports this timely initiative and it is hoped that some of the regional challenges, as mentioned above, will be addressed and solutions offered to those in need in the WPR. WPPF will offer assistance in any way to help schools in the region to meet the expectations of the

Action Plan. The WPPF and the WPR Office are working towards rolling out a train-the-trainer seminar in 2009 that will help pharmacy academics in the region to learn more about curriculum development and teaching pedagogies that are relevant to the needs of the practice model of individual country. As the concept of "one-size-fits-all" may not be appropriate in educating pharmacists in the WPR, the best solution is probably to help pharmacy educators "tailor-size-to-fit" for more relevant learning outcomes that prepares pharmacists to be knowledgeable, competent and responsible carer of patients. ■

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Competence in the Global Pharmacy Workforce

A discussion paper

Ian Bates *and* Andreia Bruno

The 3rd Global Pharmacy Education Consultation was held in Basel, Switzerland this September at the FIP World Congress of Pharmacy and Pharmaceutical Sciences. The consultation gathered input for the establishment of a global platform for dialogue and collective action as part of the Vision for pharmacy education. The theme of this year was 'Reengineering pharmacy practice in changing the world' and one of the goals of the Pharmacy Education Taskforce is working towards a Global Competency framework. Are we on the right track? ►

Competence can undoubtedly be seen as a complex construct comprising a set of knowledge, skills, behaviours and values

What do we mean by “competency”? Why is it central to practitioners and policymakers agendas? And, perhaps most importantly, why do we need to be competent in what we do?

One of the pleasures of language is having the creativity and freedom of expression which comes from the rich extended vocabulary on offer. There are downsides however, and in science and policy matters, definitions and contexts have a tendency to become somewhat convoluted. We believe this has happened with the word “competence”. The confusion will still exist if we do not agree on our motives for using the concept of “competency”.¹

Competence is very much a contemporary currency in the health care professions.² It carries with it traditional meanings which can be hard to shake off, especially when we start to talk about new models of professional development and new ways in which to regulate professional performance. The concept is becoming more accepted at a global level and can be identifiable in health care, being linked to professional roles. It is important to reach an agreement on what we mean by “competence” and, more importantly, how we can measure it.

The evidence base for the success of post-registration education and training in relation to practitioner performance is rather small. The evidence base for how the pre-registration period properly equips junior practitioners for the profession is also surprisingly small (compared to other professions). For example the WHO has data which shows that publications in health professional education are increasing in number, scope and media format – with the exception of pharmacy.³ To be able to address the concern with policymakers about changes that are need to occur to diminish the gap between academia and practice, we need to encourage an objective, empirical approach to educational development.⁴

We do not have any clear association between routine and regular forms of post-graduate education and training activity and practitioner performance. Performance is key to understanding the concept of practitioner development and central in the protection of patient safety and improvement of quality.^{5,6}

Measuring the performance of practitioners, at various levels from general through to advanced, should be the cornerstone of practitioner regulation. But this cannot happen without

recognising that competence is part of the developmental route map towards assuring safe and high quality performance in individuals. There is an emergent need to clarify career paths and to define educational goals as opposed to assessing clinical ability of healthcare professionals by a “tick-box” approach.⁷

These days, other uses of the word “competence” will also be found in political and policy documents. The European Union, for example, is particularly fond of using it to denote the authority (or not) of a statement or policy. But let us shift our perspective for a moment, and look at contemporary thinking about “competence” – starting within the relatively safe territory of definition. Competence per se is about the overarching capacity of a person to perform. It is an attractive concept because it can be measured and evaluated – not always easily – but it can be done.⁸

Competences (note the plural) are the “functional”, the “what” that are attached to competence. These too can be evaluated, and more importantly, they can be defined and codified, although this is not always done very well, and this laxity in some of the literature has undoubtedly contributed to the bad press ascribed

We are more than the sum of our competencies

by some to the competency agenda. Competencies (a different plural) refer to the qualities of capability, the “how” of competence. Looking holistically, all these concepts directly contribute towards the development, within an individual, of effective and sustained performance.⁹

Competence has suffered a poor acceptance in the past, partly due to the original attributes ascribed to the concept and partly due to a peculiar form of academic snobbery. Certainly, no one can doubt that “competence” was a concept that was directly associated with technical performance and skills-based display of capability. As such, competence was fairly low on the academic scale of intellectual behaviours.^{8,10}

Critical accounts have characterised competence-based approaches to education as being reductive, mere shopping lists or job specific task descriptions.¹¹ We would not deny these arguments, which were well made at the time, but based on old, rather orthodox notions of competence. In the opposite side competency-based approaches put the professional practice in the core of education and competence development programmes.¹ Educational and training “competency frameworks” have been designed

that do indeed look unnervingly like “job descriptions”, stripped of any progression incentives for the individual. We do not ascribe to this, and maintain that a modern, contemporary approach looks at developing effective performance of the individual, via competence, within a supportive framework that enables progression and development.¹²

A closer dissection of more modern definitions reveals several facets; competence can undoubtedly seen as a complex construct, comprising a set of knowledge, skills, behaviours and values to which effective capability can be ascribed.^{7,8,13}

This particular definition has the benefit of combating the “intellectually light” argument, but introduces another contention in that not all of the factors can reasonably be measured. Knowledge and skills are straightforward enough, and indeed behaviours can also be evaluated if the right developmental framework is used. Routinely, and reliably, measuring “values” in a practitioner is not so easy. However, this is not say that we should not try, and with the right model, in the right circumstances, and with an enlightened professional regulatory framework, these concepts can feed into a developmental pathway for practitioners, from pre-service, to general, to advanced levels of practice.

The word ‘competent’ itself carries historical baggage with it, and if we are honest, perhaps is not a wholly desirable term. There is a tendency for an association to be made with being sufficient, the minimum or just “satisfactory”. If we view the concept of competence in its correct context, adopting a holistic attitude towards the necessary components, then competence and competency-based education can be a substantial and progressive offering to the profession.¹⁴ We are more than the sum of our competencies, but being competent is definitely on the route-march towards effective performance. Let’s just call it ‘developmental education’ if it helps.⁷

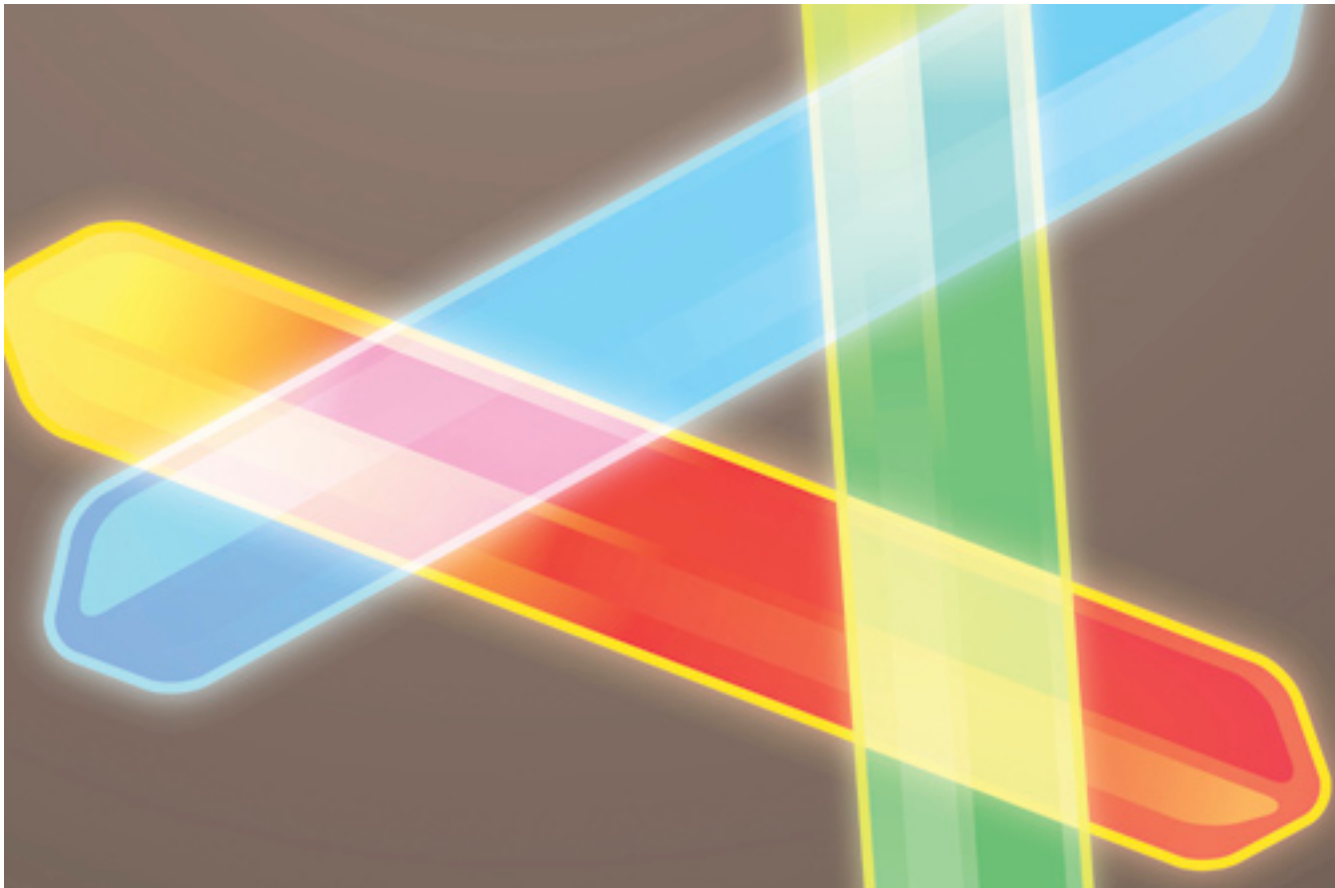
But let us not forget that the opposite of competent is incompetent, and none of us want that in our practice or our profession. Competence becomes a pragmatic and desirable attribute when we set it against practitioner performance. Safe, effective and consistent performance is a necessary feature of any healthcare professional, in whatever employment setting. If we are serious about improving standards in the profession or even just promoting pharmacy as a desirable front line activity, the competence of the workforce needs to be in the spotlight. ■

Authors’ Information

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The Realities of Professional Education **The African context**

Sarah Whitmarsh *for the Pharmacy Education Taskforce*

Professor Sultan Suleman's office is small and cramped. It's one of four offices shared by 21 staff members of the School of Pharmacy at Jimma University in Ethiopia. But Prof Suleman, who is Head of the School, has grown accustomed to making use of limited space – and resources. Lectures at the School are rotated through three classrooms. One laboratory space has to be adapted for a range of pharmaceutical science lessons, like medicines production and industrial pharmacy through to pharmaceutical microbiology, using whatever equipment is available. ►



Classroom at School of Pharmacy, Jimma University in Ethiopia

In spite of these challenges, and perhaps largely because of them, Suleman has ambitious plans for the future of pharmacy education at Jimma University. In addition to increasing the number of faculty members and expanding infrastructure, he wants to shift the School's curriculum from one that he calls "product-focused" to one that is patient-focused; integrating training with pharmacy practice within the country; and launching a new Pharmacy program.

It is these ambitions that have brought Suleman in contact with the Global Pharmacy Education Taskforce, a tripartite initiative of FIP, WHO and UNESCO to foster pharmacy education development. Launched in March 2008, the Taskforce was formed on the belief that appropriately-resourced academic institutions and a competent academic workforce are key drivers to producing pharmacists that can meet pharmacy service needs within countries¹.

In an effort to focus on regions where workforce needs are greatest, the Taskforce invited seven academic leaders from different African countries to the FIP Congress in Basel to share their experiences and brainstorm ways to collaborate on projects. Six, including Prof Suleman, were able to attend.

During the Taskforce's 3rd Global Pharmacy Education Consultation, as part of a panel discussion, each of the

academics expressed a number of challenges, both at the local and national level: a severe shortage of practicing pharmacists, few experienced faculty members to educate students, limited access to quality medicines, low public awareness of health care services that can be provided by pharmacists and a lack of political support for basic policies governing pharmaceutical services.

The need for pharmacists that are trained locally was also underscored. Dr Lungwani Muungo, Head of the Pharmacy Department at the University of Zambia, said that before 2005, pharmacists working within Zambia had "all been trained from abroad or overseas, except for pharmacy technicians... [and that] over some time, the country realized that foreign-trained pharmacists did not address the needs of the country effectively."

But finding the resources to adequately facilitate local education and training is difficult. Dr Olipa Ngassapa, Dean of the School of Pharmacy at Muhimbili University of Health and Allied Sciences (MUHAS) in Tanzania said inadequate funding hinders academic growth and structural expansion.

Panelists from Kenya and Malawi, which have recently funnelled more resources into building new pharmacy schools, also face issues like quality. "Raising the quality of pharmaceutical services is as important, if not more so,



Laboratory at School of Pharmacy, Jimma University in Ethiopia

than merely increasing the number of pharmacists,” said Dr Michael Berry, Head of the Department of Pharmacy at the University of Malawi. The pharmacy programme in Malawi, which opened in 2006, is the country’s first and expects its first graduates in 2009.

The representatives also cited issues within pharmacy practice they would like to address. “Because of the critical shortage of pharmaceutical personnel,” said Dr Mungo, “dispensing of medicines to the patients is not generally regarded as a professional procedure.” It’s thought that anyone with any level of drug knowledge can handle and dispense drugs to patients, he commented. And simply graduating more skilled pharmacists won’t immediately combat long-standing misconceptions about the role of pharmacists in the community health setting.

The panelists emphasized the importance of product-related issues, given that access to medicines and supply chain management are important areas where input of pharmacy is required. With much of pharmacy curricula based on the Old British system, the development for an “African model” of pharmacy education, which is based on regional needs such as supply chain management, was introduced.

Although the needs within their countries are great, the panelists said they were seeing some improvement. For

example, they reported an expanded intake of students at their institutions and an increase in employment of pharmacists in the clinical field, especially in private hospitals. Within the last several years, Kenya has focused on increasing the number of well-trained technicians to augment the pharmacy workforce, and optimising the current skill-mix. Zambian pharmacy schools have placed a stronger emphasis on clinical training and medicines-related public health issues.

Despite small advances, the development needed in pharmacy within these countries – spanning education, practice, policy and regulation – seems overwhelming. So where does the Pharmacy Education Taskforce come in?

A plan for action

The Taskforce arose from two global consultations held on pharmacy education in September 2006 in Salvador Bahia, Brazil and September 2007 in Beijing, China. During the Second Global Education Consultation, more than 40 national, regional and international leaders in education, practice and science reached consensus and shared commitment on an Action Plan encompassing four domains. These domains, outlined in the Pharmacy Education Taskforce Action Plan 2008 – 2010, relate to developing a vision and competency framework for education development, quality assurance and building academic workforce capacity. ►

The role of the Pharmacy Education Taskforce, comprised of an advisory group, project teams and partners, is to oversee the implementation of the Action Plan, identify resources, serve as a connection and conduit for stakeholders and provide strategic and technical guidance to facilitate achievement of the Action Plan outcomes. The Taskforce reports to the FIP Executive Committee, FIP Bureau, UNESCO and WHO.

According to the Action Plan, the Taskforce's aims are: "To develop evidence-based guidance and frameworks through which to facilitate development of pharmacy education and higher education capacity to enable the sustainability of a pharmacy workforce relevant to needs and appropriately prepared to provide pharmaceutical services²." Among its seven objectives is the commitment to provide advocacy and technical guidance to country-level stakeholders and educational institutions.

Through professional and personal connections, the Taskforce identified leaders in seven countries to collaborate on this first wave of case studies. These education leaders (of Ethiopia, Ghana, Kenya, Malawi, Tanzania, Uganda and Zambia) will partner with the Taskforce to identify country needs, define relevant pharmacy services that meet these needs, understand the competencies required of the pharmacy workforce to provide such services and, ultimately, map the education necessary to support the development of these competencies.

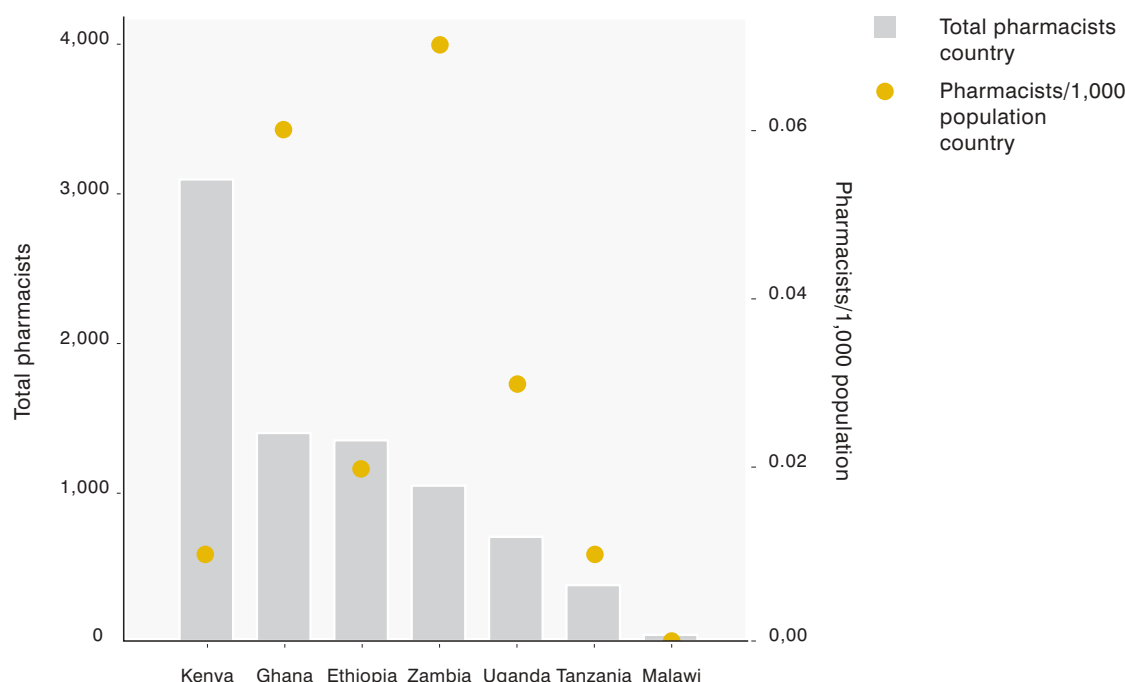
Prior to the FIP Congress, two of these leaders – Dr Muungo and Professor Mahama Duwiejua, Dean of the Kwame

Nkrumah University of Science and Technology in Ghana – and Taskforce project lead Mike Rouse piloted and tested a quality assurance tools based on the Global Framework for Quality Assurance of Pharmacy Education³ in Ghana. During the 3rd Global Education Consultation, Muungo and Rouse reported that the pilot was successful and, after some revision, the tools would be made available. The Global Framework for QA was also announced as an official FIP document approved by the FIP Bureau during the FIP Congress⁴.

In addition to expressing their country's needs during a panel session at the consultation, the country case leads met with the Taskforce at a private workshop to brainstorm the objectives, principles and methodology for undertaking the case studies. The country case leads selected priority areas within their countries where they saw potential collaboration with the Taskforce and prioritized curricular development, supply chain management and regulation. The panellists emphasized the importance of engaging stakeholders, including the media, to promote policy changes. The country case leads also suggested creating terms of reference to better clarify roles and responsibilities between the Taskforce and leads.

The Taskforce and country case leads reached consensus on five action points, which will unfold over the next several months:

1. Rouse, Duwiejua and Muungo will finalise the project report for the Quality Assurance Self-Assessment Pilot, revise the situation analysis and stakeholder



Based on figures from WHO's Working together for health: The World Health Report 2006. In comparison, the United Kingdom has a density of 0.51 pharmacists per 1,000 population.

analysis tools and share the results with the country case study leads via the Taskforce's "Community of Practice."

2. The Taskforce Advisory Group and country case study leads will draft and agree upon a statement of principles or terms of reference for the country case study work.
3. The Taskforce Advisory Group will provide communications and advocacy support to the country case study leads as they begin to build a local team to implement the country case studies. The leads will identify "champions" for their local team and will identify key stakeholders to whom the advocacy support will be disseminated.
4. The Taskforce Advisory Group and leads will investigate sources of funding and availability for cross-country exchange visits, similar to the QA pilot study for Ghana/Zambia.
5. The results of the workshop and consultation will be shared and the outcomes will appear in publications like the IPJ and other health and education journals.

Next year will mark the halfway point for the Taskforce, which was formed as a three-year initiative. It is also an important year for Professor Suleman, whose School is set to launch new graduate programmes in clinical pharmacy and pharmacy administration, a move designed to help fill the gap in patient-oriented practice.

The theme for FIP Congress 2009 poses the question: "Responsibility for Patient Outcomes: Are We Ready?" It's a question at the heart of pharmacy education, and one that drives development.

For now, that answer is: we are on the way. ■

For more information: please contact the FIP Pharmacy Education Taskforce at education@fip.org

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Responsibility for Patient Outcomes: Are You Ready? FIP Congress 2009

The FIP BPP Programme Committee
November 2008

Despite huge advances in the science of health care across the world, health systems are under immense strain from the burden of existing and emerging diseases. In the developed world, health systems are struggling to manage patients with chronic diseases such as hypertension and diabetes. And as the age of populations grow, so too will the number of patients and the complexity of conditions requiring treatment. Developing and transitional countries also face the additional challenge of infectious diseases such as HIV/AIDS, tuberculosis and malaria, which have devastating socio-economic consequences.

From the 3rd – 8th September 2009, the 69th FIP Congress will be held in the Turkish city of Istanbul and will take a timely look at the increasing responsibility being assumed by pharmacists for improving patient outcomes – to help meet this global health challenge.

As in previous years, the congress programme includes central practice and science symposia supported by a varied range of sessions organised by FIP's sections and special interest groups (SIG).

The central practice symposia has been organised by the FIP Board of Pharmaceutical Practice (BPP). After setting the stage by considering the scale of the problem in the first symposium, the second in the series will consider the gap between scientific advances and their application in practice. Often referred to as the 'know-do' gap, the consequences of this disparity are far-reaching and not limited to healthcare. Investing in bridging the 'know-do' gap could yield enormous social, political and economic dividends for a country, for example increasing the capacity of the workforce, decreasing inequities and improving social and political instability. A common approach to bridging the 'know-do' gap is increasing the volume of information disseminated to health professionals, but this approach alone often has limited success. This session will consider an alternative approach: creating a culture of accountability.

The third symposium will consider some of the successes that have already been achieved around the world in improving patient outcomes, for example pharmacist-led interventional models, focusing on diseases such as diabetes, asthma and hypertension, or on particular patient populations such as the elderly or paediatrics. Questions remain about whether there is sufficient evidence to confirm the potential for pharmacists to improve overall patient outcomes. The symposium will consider the documentation of patient outcomes to provide the profession with a much-needed evidence base.

The final symposium in this series will consider whether pharmacists are ready to be held accountable for patient outcomes. The session will consider some of the issues that arise in taking on more accountability, for example training and competence, the ability to collaborate with other healthcare professionals and the development of communication skills to interact adequately with patients.

Topics in the 2009 cutting-edge science symposia include nanomedicines, nuclear pharmacy, ethical issues in pharmacogenetics and the environment and pharmaceuticals. Although the science programme is specially targeted at pharmaceutical scientists, there will be two special symposia designed to bring together pharmaceutical scientists and practicing pharmacists, one on post-marketing surveillance and the other on the topical issue of translational science and how research can be translated more rapidly into clinical practice.

The FIP sections and special interest groups take responsibility for organising sessions for like-minded colleagues with shared specialist interests. In such a diverse profession, this means that delegates have an extensive range of special interest sessions to choose from – there is always

something for everyone. Highlights of the 2009 Section programming include sessions on the cultural and health beliefs behind medicine use, how virtual reality is being used in pharmacy education, the role of pharmacists in public health and sharing information with patients. A very popular session for community pharmacists at the 2008 FIP conference was the FIP Community Pharmacy Section's 'Forum for Policy Makers'. The section will be making a return in 2009 with a session which will debate a range of controversial and contemporary issues such as the cost effectiveness of pharmacists providing services, ethical pharmacy practice (business versus care) and expanding roles for pharmacists in primary health care.

In advance of the Congress on the 3rd – 4th September 2009, two pre-Congress educational seminars which are open to all Congress participants for an additional fee are offered. The FIP Community Pharmacy Section is organising another 'Forum for Innovators' which will consider managing change and ensuring quality in pharmacy practice. This session will serve as the launching platform for a project on international benchmarking and development of indicators on Good Pharmacy Practice guidelines and cognitive services implementation. The FIP Pharmacy Information Section will be running a seminar on 'Developing Medicines Information Seminars' with a focus on enhancing medicines information services in regions with limited access to objective analysis and clinical information support. This seminar will be of interest to any pharmacist responsible for providing, developing, or supporting medicines information services – ranging from pharmacists who specialise in medicines information to those responsible for maintaining and using information resources for clinical practice.

As in previous years, the vast majority of sessions during the congress will be accredited and therefore recognised for continuing education purposes in a wide range of countries.

We are looking forward to fruitful, interesting, and inspiring symposia and sessions in Istanbul 2009. See you there!

More information including details of how to register can be found online at: <http://www.fip.org/> ■

FIP's Young Pharmacists go to Istanbul



The FIP Young Pharmacists Group (YPG) is a special group within the structure of FIP that brings together pharmacists from around the world who are under 35 years of age and/or who have graduated with their first pharmacy degree less than five years ago.

YPG was created out of the recognition that individuals within this demographic have very unique needs, wishes and goals for their newly budding careers. It aims to bring these issues to light in a global context, all the while sparking discussions, debate and input from peers and colleagues from all over the world.

Heading this group of almost 400 young pharmacists is a Steering Committee comprised of a Chair, Public Relations Officer and Project Coordinator. Ms Sonia Faria (Portugal), Mr Cairo Toledano (Mexico) and Ms Zhining Goh (Singapore) took up these respective positions at the last FIP Congress in Basel, Switzerland and since that time have been dedicated to forwarding the goals of YPG through projects, initiatives, grants, awards and activities.

Nowhere are the efforts of the YPG better seen each year than at the FIP Congress. The Steering Committee is continuously working towards bettering the FIP Congress programme for young and new practitioners as

well as providing one-of-a-kind networking and social opportunities. As they say, the best connections are often made outside of the Congress Sessions!

The FIP Congress in Istanbul will be no exception. Under the 2009 FIP Congress theme of preparing to take greater responsibility for patient outcomes, YPG has taken a vested interest in both the science and practice avenues of the profession. The YPG Education Forum themed "Pharmacy Practice in the Era of Pharmacogenomics – are we ready for prime time?" will explore how advances in genetics and genomics are revolutionising biomedical science and providing great promise for the future of clinical practice.

This topic can hardly be explored without a discussion on how pharmacists need proper support from policy makers in order to efficiently and effectively treat patients in light of this emerging and abundant new scientific knowledge. As such, YPG is also pleased to be jointly organising the

Forum for Policy Makers. This session is designed to acknowledge the range of views of participants from different sectors and levels of the profession on a broad range of topics in order that we may all make concerted and supported efforts in steering relevant policies in the right direction.

And as mentioned, no FIP Congress is complete without the anticipated YPG social events! Join us and your old and new friends at the YPG Dinner and the International Evening party in the enchanting city of Istanbul for unforgettable experiences!

The FIP Young Pharmacists Group is lead by young pharmacists, for young pharmacists. We hope that you join us in this exceptional forum both in Istanbul and throughout the year – you and your career will be enriched with it!

For more information on becoming a YPG member please visit www.fip.org/ypg and on the Istanbul Congress programme please visit www.fip.org ■

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outcomes – Are you ready?

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