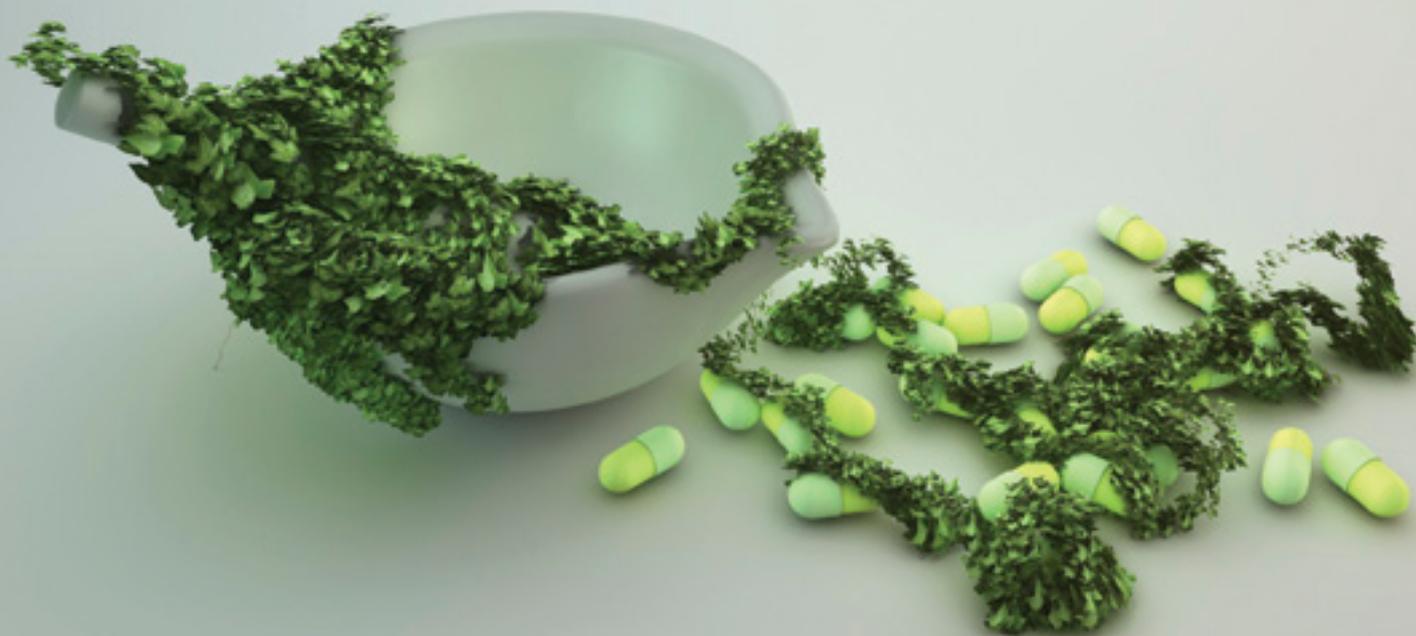


# IPJ

THE OFFICIAL JOURNAL OF FIP



## **SPANISH PHARMACY**

Promoting sustainability through corporate responsibility

## **SUSTAINING PHARMACY EDUCATION**

Where pharmacists are few

## **THE AMSTERDAM DECLARATION**

Creating a sustainable future at the FIP Centennial Congress

## **SUSTAINABILITY**

*In light of evolving global health care, technology, human capacity and the environment itself, what will sustain pharmacy into the future? The IPJ answers.*

# DEAR READER,

## International Pharmacy Journal

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## Editor

Myriah Lesko

## Co-Editor

Lowell Anderson

## Editorial Office

FIP Publications, P.O. Box 84200,  
2508 AE The Hague, The Netherlands

**T** +31 70 302 1987

**F** +31 70 302 1999

**E** publications@fip.org

<http://www.fip.org>

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*Sustainability. It seems to be on the lips of everyone these days, from environmental activists to those within our own profession contemplating our fate. But, what does sustainability really mean?*

On a recent trip to Seattle, Washington, I stumbled upon a local eatery that seemed to exemplify sustainability in every aspect of its functioning. Calling itself Local 360, the restaurant sourced all ingredients from within 360 miles – contributing to and benefiting from an investment in local, sustainable farms and businesses. Knowing already that the next issue of the IPJ would be focusing on sustainability, I was drawn to think: how can the pharmacy profession incorporate these values and achieve such commendable and successful results?

On the outset, the sustainability of “pharmacy” would seem to be plagued with many more influencing factors than a local bistro, or its suppliers. But is that truly the case? Advancing technology, threatened environmental resources (often a result of our own actions), the constantly changing health of communities and demands from society for “quicker and better” but still “healthy and safe” are key factors in determining what will become of the pharmacy profession. Yet when taking a step back, they are concerns for the global community as a whole.

This edition of the IPJ is meant to address these issues in the context of first their recognition, and in turn the methods and innovations that will allow the pharmacy profession to be sustainable. Considered throughout are an anticipated future of replacing technologies, professional overlap, growing patient knowledge and empowerment and a changing healthcare landscape.

The articles speak of widely different yet all viable solutions and concrete actions to ensure pharmacy’s survival. From social and corporate responsibility to building a sustainable workforce to fostering the vision of the next generation, this issue brings a taste of it all. And, in an effort towards environmental sustainability, this is a very “green” issue of the IPJ, reflected in the colour itself and our use of recycled paper for printing.

So what is sustainability? I think Local 360 summed it up best:

*To us, it means relying on and investing in our immediate community and geographical placement. It means utilizing our resources in an efficient and renewable manner...we have stopped asking “what is new” and begun asking “what is best”.*

**Myriah Lesko** Editor  
**Lowell Anderson** Co-Editor

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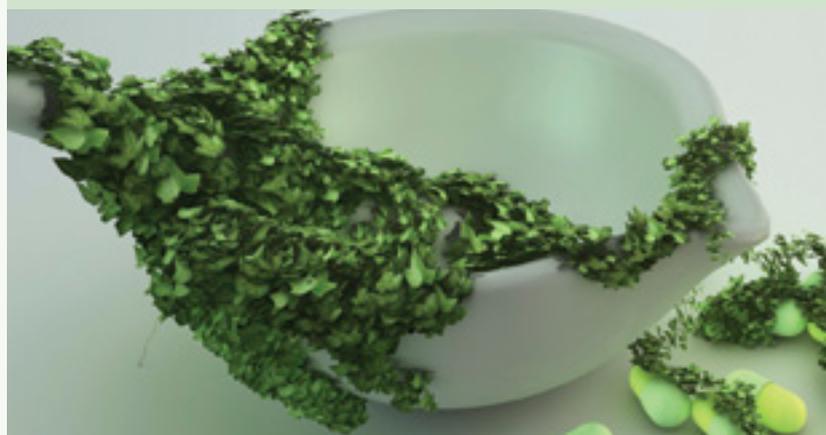
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# GLOBAL REPORTING INITIATIVE

## REPORTING SUSTAINABILITY SECTOR BY SECTOR

*Jack Boulter*

Sustainability is climbing the global agenda. The challenges of climate change, resource depletion and human inequality are driving a change in how organizations measure their performance and success. These sustainability issues have been thrown into even sharper relief by the recent global economic crisis; a governance failure that revealed the intrinsic links between financial and non-financial performance, transparency and trust, accountability and risk.

Then there are sectors, and sectoral concerns. This Journal's call for articles on sustainability identified some issues affecting the profession; evolving technologies, growing consumer knowledge and power, widespread international changes in healthcare provision. There is an understanding that it is vital for sectors, professions, companies and organizations to assess the risks and opportunities they face, and establish the long term viability of their economic and operating models.

Big questions need bigger answers. Interest in the answers is growing, and the will to tackle sustainability challenges is strengthening. Sustainability is evolving, from a controversial topic ventured by a few pioneers to a potentially commonplace business concern. Ask anyone from any organization; everyone would like to minimize their negative impacts, preserve their own value, and enhance their reputation. Great – but it leaves one crucial question. How do you know if you're sustainable or not? How does anyone?

One answer is sustainability reporting. There is a de facto standard for measuring and presenting sustainability performance; the Sustainability Reporting Framework pioneered by network-based nonprofit the Global Reporting Initiative (GRI). Since 1997, GRI has been providing the most comprehensive sustainability reporting guidance available, with the Sustainability Reporting Guidelines – now in their third generation – at its heart. Developed using a consensus-based, multi-stakeholder process, GRI's Guidelines are a free public good, usable by organizations of any size, sector or

location. The Guidelines enable the assessment of sustainability performance and the disclosure of results in a similar way to financial reporting.

GRI spearheaded the development of sustainability reporting. Now, strategically allied to such platforms as the United Nations Global Compact, the United Nations Environment Programme and the Organisation for Economic Cooperation and Development, GRI is committed to driving the uptake of reporting on the global stage. It is working: currently, nearly 80 percent of the Global 500 companies produce non-financial reports, with three quarters of these based on GRI's guidance. GRI's vision is of a sustainable global economy, where such disclosure of sustainability performance is standard practice.

GRI's Guidelines contain Standard Disclosures and Performance Indicators that cover a full range of sustainability issues. Well-known sustainability impacts like energy use, greenhouse gas emissions and waste management are covered in depth. But users of the Guidelines are also encouraged to capture information on less discussed areas. Sustainability reporting is an exercise in organizational self-knowledge; by reporting, organizations can learn about, among other things, the contentment and motivation of their staff, the shelf life of their products, their impact on local communities, the sustainability of their supply chain, their human rights performance, and their relationship with key stakeholders like customers.

Transparent and accountable disclosure brings benefits, but takes effort and commitment. A reasonable first step for new reporters is to consider the sustainability of their core product, the thing they actually put out into the world. Even the assessment of core products can result in some unknowns, but the value of reporting begins to reveal itself immediately; it is a new approach to self-assessment. Sustainability reporting is a creative and iterative process, with scope for flexibility and interpretation.

“When you are trying to address a massive problem you find yourself in, you should not use the same logic, the same thinking, and the same frameworks that got you into your problem in the first place,” states Kumi Naidoo, International Executive Director of Greenpeace.

Reporting is also often focused on the prevention and mitigation of harm. But it does offer other possibilities, and the business case for reporting is attracting much attention. This trend is being driven partly by those who now use sustainability data with more enthusiasm, and in bigger numbers, than ever before: regulators, auditors and the investment community. Investors are highlighting the fact that financial performance alone is inadequate for their decision making; robust, comparable sustainability data is vital for the true value of a business to be understood.

The business case for sustainability reporting is grounded in the notion that reporting helps organizations to recognize risks and opportunities, and enables them to preserve and increase their own value. It is not the revealing of information that represents the optimal use of reporting. Rather, it is the way such information is fed back to senior management and decision makers to shape policy, strategy and operations that better represents one of reporting's fundamental purposes.

Transparent and comprehensive reporting can help generate growth. It can increase revenue through learning and innovation, including the discovery of new markets, products and consumers. It can facilitate capital raising; with a complete picture of company performance, lenders will be empowered to assess risk on a more informed basis. It can lead to enhanced reputation and brand recognition, improved customer loyalty and supply chain management. Transparent reporting can also help to drive down costs by highlighting performance and efficiency savings, and helping to minimize risk.

Thorough reporting also helps companies engage with stakeholders. Reporting organizations should avoid engaging with stakeholders in order to report, to gather information which they then relay briefly to the outside world. Instead, reporting should foster a culture of interactive strategic communication with stakeholders throughout the year.

Another business plus can be the improved recruitment and retention of talented employees. By being engaged as key stakeholders, with their well-being factored in to strategy and operations, conscientious employees understand that their concerns are at the heart of a business. On the whole, people want to be good citizens whoever and wherever they are; they expect to find the same quality in companies. Moreover, it is important not to forget the value of a simple word – trust. Trust applies to not-for profits as much as the corporate sector. “Members of the corporate community and others have for years been criticizing the international NGO community, saying they lack transparency and accountability,” says George Macfarlane, Senior Director at Amnesty International. “GRI’s NGO Sector Supplement, developed with and specifically for the NGO community, provides a practical method for NGOs to demonstrate their accountability and to effectively address such criticism.”

Currently, the emphasis of those driving sustainability reporting is on increasing its uptake. But a horizon is in sight for all those on the sustainability reporting journey: the point at which non-financial reporting becomes a mainstream practice. To this end, GRI has embarked on a new workstream – the Report or Explain approach. This involves flipping the question usually asked of the reporting minority: “Why do you report?” Governments, regulators, stock exchanges, investors, associations, and businesses can help information reach a critical mass in the market by asking non-reporters: “Why don’t you report?”

There are many ways to do this, for example through regulation. Sustainability reporting does not necessarily need to be mandatory: If regulators were to adopt a report or explain policy, companies could still be free to choose what information to disclose. Such an approach could persuade more companies to report rather than to explain why they don’t, and provide markets and society with information to judge their choices.

Either way, there is plenty of scope for reporting to develop, and become a vital resource for countless thousands more businesses – from family-run corner pharmacies to multinational giants.

And it is important to remember that sustainable development, and a sustainable global economy, is the goal; not the production of great reports. Some organizations use sustainability reporting to increase competitive edge. But the creation of a sustainable global economy is the best guarantee of future competitiveness. “It’s time to re-think how we do business,” says Professor Mervyn E. King, Chairman of GRI’s Board of Directors. “Organizations must measure and report on their impact on the world, not just on financial data. We are calling for leading organizations to join GRI and help us to mainstream sustainability reporting. This is a crucial step in rebuilding a sustainable and transparent economy.”

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*Jack Boulter*  
*Global Reporting Initiative*

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# SPANISH PHARMACY

## PROMOTING SUSTAINABILITY THROUGH CORPORATE SOCIAL RESPONSIBILITY

*Carmen Peña*

Above and beyond the legal and contractual obligations, Pharmacy's contribution to the improvement of the population's health is a trademark of the profession itself all over the world and throughout history. In Spain from the Pharmaceutical Organisation and from the individual commitment of each pharmacist, every day our profession contributes to promoting a greater health care education for citizens, with value added actions and services.

Community pharmacists perform social and care work that generates an important social and health care impact. In Spain, two million citizens visit the health care network of over 21,000 pharmacies to request their medicines and advice about them or about topics related to health every day. The community pharmacy provides services with a social and health care value, and it is supported by a solid, efficient pharmacy model, which ensures one of citizens' fundamental rights: access to medicines under fair and equal conditions.

Pharmacies also contribute to the quality of the job, and it is one of the sectors with the largest percentage of qualified female employment, fulfilling two important factors: equality at work and no salary discrimination for gender reasons. It generates over 80,000 stable, quality jobs that are mainly for women. In Spain there are 43,603 pharmacists working in community pharmacies, of which 30,723 – or 70.5% – are women.

In the professional field, as pharmacists we have also taken on the mission to respond to patients' needs regarding their medicines, through Pharmaceutical Care services. Pharmaceutical Care, one of the profession's most important challenges, means the involvement of pharmacists in patients' health. Pharmaceutical Care services mean an active, voluntary contribution by the pharmacist to social

and health care improvement, and therefore, they are a step forward in corporate social responsibility (CSR) because pharmacists, apart from dispensing and fulfilling the laws and rules, commit themselves to patients and to their pharmacotherapy results.

The pharmacies, within their function of promoting health and preventing illness, generate and disseminate health care campaigns that benefit citizens and patients, providing them with information about how to improve and/or maintain one of their fundamental rights: health. Over the past five years (2006-2010) the General Spanish Council has promoted 45 health care campaigns, with a large number of pharmacists taking part, without taking into account the ones that are also carried out on a provincial or regional level by the Regional Colleges and Councils.

The population trusts their pharmacists and proof of this is the fact that the Pharmacy is the health care service that receives least complaints by consumers' organisations, with only 0.02% according to data from the National Consumers Institute. In addition to this, pharmacies have not had any complaints made to the Ombudsman over the past year, as is shown in the annual report to the General Courts. The impact of the pharmacists' social work, the accessibility of the pharmacies and their contribution to environmental sustain-

2 MILLION  
CITIZENS

VISIT

21.000  
PHARMACIES

45  
HEALTHCARE  
CAMPAIGNS

70,5  
% 

SPAIN

CSR  
PLAN

over  
80.000  
JOBS

ability, using a selective collection system of medicines and containers for recycling, are other factors to be taken into account in the contribution made by pharmacies to society.

For all these reasons, from the General Spanish Council of Pharmacists we detect the need to frame many activities within the area of Social Responsibility that are performed on a normal basis, without being seen as contributions above and beyond our obligations. We are starting to take steps forward in the area of CSR, and one of the first ones was to join the Spanish Network of the United Nations Global Compact, committing ourselves from the General Council to fulfil the ten principles on human rights, working and environmental regulations and the fight against corruption.

In 2008 we defined a Corporate Social Responsibility Plan. As the starting point, we developed a first phase of research amongst the Pharmacy Colleges and the General Council itself, aimed at discovering the activities that are carried out and the groups of interest with which we interact. The results were more than promising and they revealed data such as the fact that 81% of the Colleges were collaborating in solidary NGO projects or that 48% were developing efficient energy use steps.

This CSR Plan was born with some specific targets. In the first place, the plan means a common strategic framework in the field of CSR for the General Council which, in turn, can be useful for the Official Colleges of Pharmacists as a valuable contribution to the management that they are already performing. In the second place, this plan attempts to coordinate and integrate the CSR initiatives developed to date by the General Council, promoting new projects and of course, promoting CSR training for Colleges and pharmacists.

To comply with these targets, we have set out three commitments: optimising the visibility of the social work performed by pharmacists, that is to say, highlighting the work they perform; promoting the integration of CSR Policies through the Colleges, which become involved voluntarily; and strengthening the commitment to sustainability.

Within this CSR Plan framework, in November 2009 we presented the training manual “Corporate Social Responsibility (CSR) and pharmacists. A healthy commitment”. This publication, which was well received amongst pharmacists, colleges and public institutions, has attempted to encourage the training of pharmacists on the general aspects of CSR and their practical application; to aid the identification of actions that they develop in this field; cooperate with the stimulation of CSR and to encourage the development of new socially responsible actions.

This manual begins with a first, brief introduction, before moving onto the second, more theoretical block of information, as to what CSR is and what it is not, as well as the national and international framework. Following this, there is a practical view, presenting actions developed by different organisations and good CSR practices in specifications

and sustainability reports. Therefore, some good practices are proposed in the field of “values and ethics”, “employees and collaborators”, “the environment”, “associates and suppliers”, “users” and “community”. Finally, a highly important aspect is covered, which is communication, since as is often said: “if it is not communicated, it does not exist”. In addition to this, as we are aware that the patients are the people who evaluate the social responsibility performed by the pharmacists on a daily basis, the presentation of the manual was supported by the Spanish Forum of Patients.

Another of the advances we have implanted in the field of CSR was the preparation of the Sustainability Report, which includes the political-professional activity and work by the General Council of Colleges of Pharmacists based on the Global Reporting Initiative criteria, the main standard in the preparation of CSR reports. This report reflects our commitment to transparency, sustainability and continuous improvement and it means a threefold balance – economic, social and environmental, of the work performed by our institution.

In 2009, the General Council was the first college organisation in the health care sector in Spain to prepare its report based on an international standard such as the GRI, confirming the organisation’s leadership in the Corporate Social Responsibility area. In 2010 we published our second report based on the GRI, achieving an A on the certificate (GRI Checked).

Finally, it is also worth mentioning that in the field of social action, each year we promote health care projects with different NGOs, giving priority to initiatives aimed at extending and improving the population’s access to health care.

We are an essential link in Health Care for society, where we integrate the principles of CSR in our *raison d’être* and for this reason from the General Council of Colleges of Pharmacists of Spain we have joined the challenge that Social Responsibility sets forth. In turn, these actions will serve to support the long term, sustainable involvement of pharmacists in the healthcare teams of today and tomorrow.

#### AUTHOR’S INFORMATION

*Carmen Peña*

*President, Consejo General de Farmaceuticos*

# THE SUSTAINABILITY OF THE PHARMACY PROFESSION

## IN A CHANGING HEALTHCARE SCENE IN ENGLAND

*Roohil Yusuf, Aamer Safdar*

‘Our ambition is to once again make the NHS the envy of the world. Patients will be at the heart of everything we do so they will have more choice and control. Success will be measured, not through bureaucratic process targets, but against results that really matter to patients – such as improving cancer and stroke survival rates. We will empower health professionals to use their professional judgement about what is right for patients. We will give frontline staff more control. Healthcare will be run from the bottom up, with ownership and decision-making in the hands of professionals and patients. Only by putting patients first and trusting professionals will we drive up standards, deliver better value for money and create a healthier nation.’

*– Equity and excellence: Liberating the NHS, July 2010<sup>1</sup>*

On the 5<sup>th</sup> July 1948 the health secretary, Aneurin Bevan opened a hospital in Manchester with the intention to combine and focus the services of different healthcare professionals towards one common goal; the provision of free healthcare, financed on taxation and based on need, regardless of financial status.<sup>2</sup> Hence the foundation of National Health Service (NHS) was built.

Since then the NHS has continued to develop and is currently the world’s largest publicly funded healthcare service.<sup>2</sup> In the year 2000 the Department of Health released the NHS plan<sup>3</sup> which encouraged patient involvement in decisions about their healthcare and proposed changes to ensure that the NHS would continue to improve. The reduction of waiting times, expansion of primary care services and emphasis on patient information and choice were amongst other changes

that were proposed. In addition, the formation of primary care trusts (PCTs) saw the reassignment of responsibility to the frontline. PCTs controlled 80% of the healthcare budget and were required to commission services tailored to the needs of their local populations.<sup>3</sup> This improved the local delivery of healthcare services.<sup>3</sup> Strategic health authorities (SHAs) were created as the link between PCTs and the Department of Health and played a managerial role in ensuring that the needs of the local population were being met.

The formation of NHS foundation trusts (FTs) encouraged greater financial and operational freedom.<sup>3</sup> Again this transferred decision making from central government to local organisations<sup>4</sup> and led to trusts becoming accountable to their local communities.

Over the last decade, pharmacists have had an increasingly important role within the NHS in the provision of both primary and secondary care services. 20% of the NHS budget is spent on medicines in England.<sup>5</sup> As the medicines experts, pharmacists have a major role to play in improving patient outcomes and ensuring medicines spending is cost efficient.<sup>6</sup>

In primary care, community pharmacists are frontline staff with 96% of the population being able to access a pharmacy within 20 minutes.<sup>7</sup> In this setting, pharmacists will therefore interact with a population of patients who do not come into contact with General Practitioners (GPs) or other healthcare professionals. Furthermore, the interventions made through pharmacy led services such as smoking cessation, weight management, sexual health and vascular risk assessment<sup>7</sup> improve patient care and empower patients to positively take control of their health. Pharmacists are the only healthcare professionals available for consultation without an appointment and this benefits many patients because they can access healthcare advice easily.

Also in primary care, pharmacists have worked within PCTs as prescribing advisors to GPs, promoting the use of evidence based, cost effective medicines. Their involvement in pharmaceutical needs assessments<sup>8</sup>, projects which establish the health inequalities of the local population and

identify services to overcome them is central to the provision of services tailored to the local communities. Pharmacists also work with and train other community healthcare professionals with an aim to improve patient care and accessibility to care.

Working within multidisciplinary teams, hospital pharmacists play both regulatory and advisory roles in ensuring medication is appropriately prescribed and administered, in accordance with the most current evidence. Pharmacists have a role in writing guidelines for the appropriate management of many conditions, educating other members of the multidisciplinary team and operating pharmacist led clinics, examples of which include anticoagulation and diabetes management.

### Present

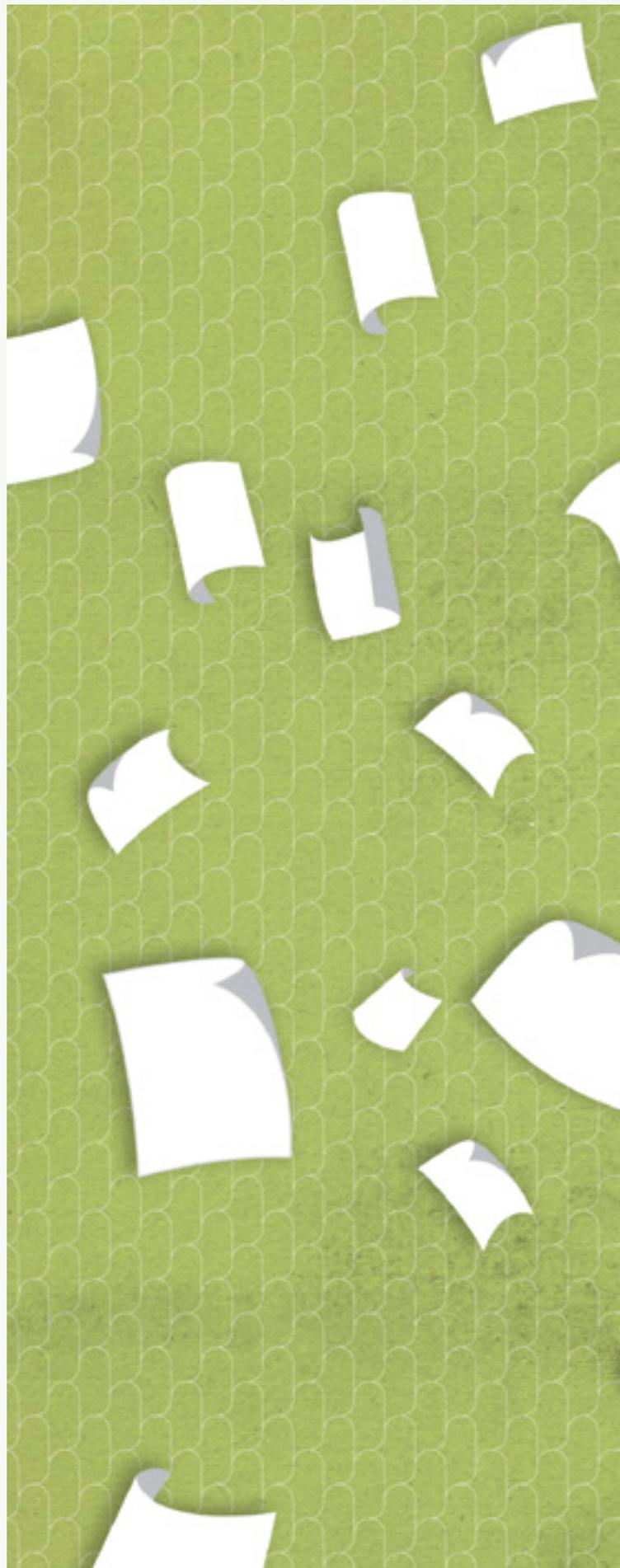
In July 2010, Equity and excellence: liberating the NHS was released. This White Paper proposed changes that would alter the landscape of the provision of healthcare in the England. The vision of the White Paper Equity and excellence: liberating the NHS describes an NHS that<sup>3</sup>:

1. Is genuinely centred around patients
2. Achieves quality and outcomes that are among the best in the world
3. Refuses to tolerate unsafe and substandard care
4. Eliminates discrimination and reduces inequalities
5. Puts clinicians in the driving seat
6. Is more transparent, with greater accountability for results
7. Gives citizens more say in how the NHS is run
8. Works much better across boundaries, for example with local authorities
9. Is more efficient and dynamic with less bureaucracy
10. Is free from frequent political meddling

### How will this affect the pharmacy profession?

Arguably the most significant recommendation of this document is the abolishment of PCTs and SHAs which have been responsible for the commissioning of health care services since their initiation in 2002. This White Paper recommends the replacement of PCTs with GP consortia. The consortia will have the freedom to enter into commercial agreements with 'any willing provider' which could include corporate organisations for the healthcare services they commission.<sup>9</sup> However, GP consortia will not commission pharmacy, dental or optometry services. This will be the responsibility of a body called the NHS Commissioning board.

The White Paper has acknowledged that pharmacists have an important role in supporting better health. Furthermore, to ensure that the NHS is 'the best in the world', collaboration across all healthcare professions is imperative.<sup>7</sup>





Another recommendation is to transform all NHS trusts into foundation trusts by April 2014<sup>9</sup> in order to ‘free foundation trusts from constraints’.<sup>10</sup> This has the potential to affect hospital pharmacy services because many non-foundation trust hospitals may have been unable to achieve foundation trust status as a result of financial deficits, many of which are historical. In ensuring that financial targets are achieved in order to meet the requirements of hospitals becoming foundation trusts, many hospitals are reducing costs by cutting services and making efficiency savings by reducing the number of staff and adopting lean working processes to increase process efficiency.

Pharmacists working in PCTs have probably been the most affected by the proposed changes from this White Paper.<sup>6</sup> Their experience with evidence based cost effective prescribing and guiding commissioning according to local need are crucial to improving the quality of services and patients’ clinical outcomes the White Paper hopes to achieve. A number of PCT clusters are currently in the process of forming shadow organisations which will gradually transfer responsibility to the GP consortia.

The relationship between GPs and community pharmacists becomes increasingly more significant as GPs will be responsible for commissioning services for the needs of the local population. Community pharmacists, working with the population will have experience of the services that should be provided and as frontline staff should have an input into service provision based on the population of patients seen in community pharmacies. Currently there is no requirement for pharmacists to be on the GP consortia decision making board and although some GPs have recognised the expertise of pharmacists and included them in these boards, others have not. This could potentially have negative implications on the GP consortia in terms of cost and efficiency as non pharmacists will not have the same level of expertise and knowledge about medicines and their uses.

Furthermore, community pharmacists have a significant role to play in reducing health inequalities through the provision of pharmacy services discussed above. However, the ‘any willing provider’ factor may see pharmacies lose out to competitors who provide the same services at reduced costs. Promoting the ability of pharmacists to provide pharmacy led services, such as the management of minor ailments and undertaking of medicine use reviews, will allow the GPs to see patients who are suffering from chronic, long term conditions, which is an important factor considering the UK’s ageing population.<sup>7</sup>

Hospital pharmacy will be affected because some services (such as minor routine or elective surgeries) will no longer be provided by hospitals, but could potentially move into the community/primary care or will be provided by other corporate organisations. This could result in hospitals treating fewer but sicker patients, requiring less pharmacy staff with more specialist expertise.

Hospitals are currently reducing costs as discussed above. One way of overcoming this has been to outsource outpatient dispensing. The Royal Liverpool and Broadgreen University Hospitals NHS Trust have contracted a community pharmacy to dispense their outpatient prescriptions. This has allowed pharmacists more time to spend with their patients due to the reduction in prescriptions and has resulted in cost savings.<sup>11</sup> The implications of this, although improving efficiency of services, may not result in improved patient care as training and development of pharmacists in dispensaries may be affected.

### Looking to the future; proposed practical solutions for current and future challenges

*How will pharmacists adapt to these changes? Only time will tell.* Pharmacists will need to promote themselves and the profession better in order to be regarded as an integral part of the wider healthcare team. The professional leadership body, the Royal Pharmaceutical Society (RPS), is well placed to advocate the importance of pharmacists to patients, the general population and the political decision makers. Organisations such as the United Kingdom Clinical Pharmacy Association (UKCPA) and the National Pharmacy Association (NPA) will play an important role in supporting the grass roots pharmacist. There are many other pharmacy organisations which all need to actively engage with the government on consultations on the White Paper to ensure that the critical role pharmacists play in this financially challenged economic landscape is always emphasised.

Pharmacists should work in a way that will ensure they meet the needs of the population; with increasingly more involvement with health promotion to meet local population needs. They will need to provide more pharmacy led services and ensure that they have the competencies to do so. As they are often the first port of call for patients in the community, they play an integral role in supporting patients in taking medicines and in the provision of appropriate medicines information and advice.

The RPS has embarked on a professional credentialing programme for pharmacists with a special interest in community pharmacy and advanced pharmacy practitioners in hospital pharmacy. This will allow pharmacists to be recognised for their specialist skills and knowledge.

In primary care, pharmacists will need to promote themselves as the experts in ensuring the cost effective use of medicines within the local population. This requires pharmacists to have both therapeutic knowledge as well as an understanding of pharmacoconomics and pharmacoepidemiology so that they can become experts in public health.

### AUTHORS' INFORMATION

#### Roohil Yusuf

*Preregistration pharmacist, Guys and St Thomas' NHS Foundation Trust, Great Maze Pond, London SE1 9RT*

#### Aamer Safdar BPharm (Hons), MSc, PGCE (PCET), MA, FHEA, MRPharmS.

*Principal Pharmacist Lead for Education and Development, Pharmacy Department, Guy's and St Thomas' NHS Foundation Trust, Great Maze Pond, London SE1 9RT.*

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# CREATING SUSTAINABILITY

## IN THE AMERICAN PHARMACY PRACTICE MODEL

Scott Knoer, Sam Calabrese,  
Morton P. Goldman,

The passing of comprehensive Health-Care reform in the United States in 2010 has accelerated the trend toward creating integrated care delivery systems.<sup>1</sup> This trend, along with the movement toward accountability, transparency and pay for performance has forced organisations to focus on improving quality and patient satisfaction. Health-care leaders are moving their organizations toward the Accountable Care Organization (ACO) model. In this model, the health-care organization is responsible for outcomes of the “total” patient, not for episodic care. These external factors are influencing organizations to create innovative and sustainable models for success in the new reality of decreased reimbursement and increased expectations from payers and patients.

### Building a sustainable pharmacy practice model – the vision

The pharmacy professional plays a unique and important role in the care of patients within a health-system. Creating a comprehensive integrated pharmacy practice model will enhance patient care and improve pharmacy job satisfaction. The American Society of Health-System Pharmacists (ASHP) is acknowledging the need for a sustainable model by sponsoring the Pharmacy Practice Model Initiative (PPMI)<sup>2</sup>. This initiative began on November 7, 2010 with an invitation only consensus conference composed of thought leaders from across the country in Dallas, TX [USA]. The goal of this conference was to address the needs of the profession related to creating sustainable practice models in the era of health-care reform. The recommendations of this Pharmacy Practice Model Summit address: the patients’ rights to the care of a pharmacist; the characteristics, requirements, and challenges of optimal models; the need to advance the use of

information technology in the medication-use process; the profession’s need to advance the use of technicians; and an implementation strategy for successful change management.<sup>3</sup>

### A case study in creating a sustainable pharmacy model, the Cleveland Clinic

The Cleveland Clinic Department of Pharmacy [Cleveland, USA] has responded to the changes in health-care and to the initial recommendations of the ASHP Practice Model Initiative by leveraging the resources of the system and working as an integrated pharmacy enterprise. As the overall organization focuses on standardising and leveraging best practices across the health system, the pharmacy must evolve the current practice model to respond to the new normal. The Cleveland Clinic Health-System consists of a 1300 bed tertiary care hospital, nine regional community hospitals, 15 Family Health Centers, 7 Ambulatory Surgical Centers and several hundred physician offices in the greater Cleveland, Ohio (USA) area; a 300 bed hospital in Westin, Florida; a neurological center in Las Vegas, Nevada (USA); a multispecialty clinic in Toronto Canada; and a management services agreement with Sheikh Khalifa Medical City in Abu Dhabi. Additionally, a new state of the art hospital, Cleveland Clinic Abu Dhabi, is currently being built with an anticipated opening in 2012.

### Positioning Pharmacy Leadership

In 2005, The Cleveland Clinic recognised the importance of pharmacy representation at an executive level within the organisation by creating the Chief Pharmacy Officer (CPO) position. In order for the organisation to operate as an enterprise and ensure proper support is available for a practice change, the position was upgraded to an Executive Chief Pharmacy Officer in 2010.<sup>4</sup> This restructuring allowed a new Pharmacy organisational chart to be developed, creating a true enterprise focus with the regional pharmacy sites reporting directly to the CPO. The new structure, along with the impending practice model change, will facilitate creating a model that is sustainable in the future.

### Build a sound foundation

Before a sustainable practice model can be implemented, a sound operational foundation must be in place.<sup>5</sup> Leveraging technology and properly using well-trained technicians is key to creating a sustainable model. If we cannot safely and efficiently get medications to patients, we cannot provide high level clinical care and patient education. The following examples illustrate proven technologies that, if implemented correctly, will build the foundation of a sustainable pharmacy practice model.

*Ordering and documentation.* An electronic medical record (EMAR) with Computerized Prescriber Order Entry (CPOE) has led to major efficiencies in order entry and verification. CPOE and EMAR contribute to standardization and the dissemination of best practice. This technology eliminates medication errors related to handwriting and has also been shown to reduce the number of adverse drug events. A downside of this automation is the significant costs of implementation and maintenance of the system from both an acquisition and ongoing labor support perspective.<sup>6</sup>

*Inventory and restocking technology.* Inventory carousels have significantly improved inventory turns, decreased picking errors, decreased inventory shrinkage and improved the time-motion efficiency of restocking.<sup>7</sup> The primary time efficiency is a result of the inventory being concentrated in a smaller footprint and the reduced need to “walk the shelves”. The Cleveland Clinic currently maintains six carousels on their main campus. The combination of the carousels and the use of a unit based automated dispensing cabinet (ADC) model with patient profile has minimized, on average, the number of line items picked for a traditional cart fill from 55,000 picks in a five day period to 5,000 picks. This technology also decreased the refill time for 300 ADCs from a 24 hour process to one that is now completed during one eight hour shift.

*Distribution technology.* While multiple distribution options for unit dose non-refrigerated items are available, the two most common methods are ADCs, used in 83% of hospitals in the United States (US), and cartfill robots used in 10% of US hospitals.<sup>8</sup> While both systems have their pros and cons, the chosen method at the Cleveland Clinic is the “cartless” ADC model. This model was chosen primarily for its strengths of rapid turnaround time and security. The primary drawback of the ADC model is the duplicative inventory required to stock the same medication in multiple locations.

*Medication tracking technology.* Medication workflow and tracking technology is the single largest eliminator of animosity between nursing and pharmacy that has been introduced in recent history. Being able to track on a computer monitor exactly where a medication is by scanning it at every step of the compounding and distribution process has a huge impact on minimizing missing doses. This eliminates waste by reducing unnecessary phone calls to find missing doses and the rework associated with sending a dose multiple times. The implementation of an automated tracking system at the Cleveland Clinic has provided a mechanism to identify

where each dose is delivered, to capture items that are mis-delivered and to validate turnaround times for medications. It has also become a useful tool to improve nursing/ pharmacy relationships. The ability to provide objective turnaround time metrics helps pharmacy leaders demonstrate their efficiency to nursing and senior administration.

*Bedside Barcode Administration.* Perhaps the single most effective safety technology available today to ensure the correct medication is given to the patient is bedside barcode administration. While workarounds and bad practice can limit the effectiveness of this technology, it has tremendous potential to improve safety when used correctly.<sup>9</sup> Alerting the administering nurse that the product is either incorrect or not due is extremely impactful on improving the safety of the medication use process.

*Process Improvement.* You never truly arrive at the final destination of a sustainable model. To sustain a leading practice, one must constantly improve. The Cleveland Clinic has developed a system Director of Process Improvement position to use Lean methodology to drive efficiencies and standardization across the pharmacy enterprise. Adapting these principles, first pioneered by the Toyota motor company in automobile manufacturing,<sup>10</sup> to healthcare has significantly reduced waste in IV rooms, inventory and purchasing areas.<sup>11</sup>

### The Practice Model

Once sound operations are in place, pharmacy departments need to embrace a comprehensive integrated practice model. Such a model must provide for safe and efficient distribution of medications as well as the clinical expertise to select, dose and monitor those medications. Furthermore, this model must enable the pharmacist to effectively manage transitions of care between ambulatory and acute settings. The ASHP PPMI is helping pharmacy leaders across the world focus on appropriately utilizing technology, support staff and professional staff at the “top of their license” to provide care in a cost containment ACO type model.

#### *Integrated approach*

Pharmacy leaders need to evaluate and select a practice model structure that is patient focused and sustainable.<sup>12</sup> Segregation of clinical and dispensing processes may not provide the level of care that is required to succeed in the new reality of healthcare reform and ACOs. A continued silo approach to pharmaceutical care is not in the best interest of the patient, the organization, or the pharmacy and medical staff. An integrated approach, where Clinical Pharmacists are responsible for all aspects of the medication uses system can lead to better alignment of staff with departmental goals, expanded pharmacy and services, more efficient medication distribution, improved employee engagement, and a robust succession plan.<sup>5</sup> In addition to clinical pharmacists, specialists may be required to provide a level of expertise in focused or highly specialised areas.

*Using Staff at the Top of their License.* In order to provide cost effective care in the future, pharmacy leaders must properly utilise technical staff, freeing pharmacists up to perform additional judgmental and clinical tasks. Pharmacists need the opportunity to use the skills and knowledge they possess to improve patient care.<sup>33</sup> Professional pharmacy organizations must work with government bodies to update restrictive laws in states or provinces that prevent technicians from completing non-judgmental tasks such as tech-check-tech (TCT). Implementing a TCT program would save the Cleveland Clinic in excess of \$100,000 dollars a year. Pharmacists can then be redirected to expanded patient care activities.

*Developing meaningful roles.* The move to an all Pharm.D. curriculum and the increasing necessity of residency training as a requirement for acute care pharmacy employment has led to a major improvement in the training of entry level pharmacists in health-systems.<sup>34</sup> These residency trained pharmacists are motivated to provide patient focused and clinical patient care. New practitioners are interested in clinical roles where they are considered part of the medical team and have direct patient care responsibilities. Tasks associated with these clinical roles include initiating drug therapy, pharmacokinetic dosing and monitoring, student and resident precepting, patient education and multidisciplinary teamwork.<sup>35</sup>

Regulations requiring public reporting for safety and patient satisfaction scores are positively impacting patient care. The push to improve Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)<sup>36</sup> scores related to medication education is forcing organizations to reinvent how patient education is provided. As the medication experts, the pharmacist is the most appropriate healthcare provider to positively impact HCAHPS scores and reduce drug related hospital readmissions. All patients must have the right to the services of a pharmacist.<sup>3</sup>

*Accountability and Performance Measurement.* Pharmacy departments have been reluctant to use productivity metrics primarily because national benchmarking is fundamentally flawed<sup>37,38</sup> and internal productivity metrics can be misused by finance departments and by senior management. A common misuse is to continually reset departments exceeding budgeted productive to 100% as opposed to increasing labor resources to avoid burnout and high turnover. This type of systematic abuse creates a disincentive to managers to have highly productive departments. It breeds mistrust of senior administration and finance due to a perceived lack of integrity of the system. When used appropriately these data can help match workload to census which can increase productivity, improve patient care and reduce burnout and turnover.

Workload productivity monitoring must be augmented with the vigorous reporting of safety and quality metrics. It is imperative that the positive impact of appropriately applied pharmacy resources including drug information, clinical service, multidisciplinary team rounding, medication reconciliation, education and training (physicians, nurses,

residents, students, pharmacy personnel), and patient education be reported and measured.

A luxury that a pharmacy department has that other clinical departments lack is the ability to show significant overall cost savings for the institution through appropriate labor utilisation. There are only two significant costs in a health-system pharmacy, drugs and labor. The labor component is relatively insignificant in comparison to the larger drug cost.<sup>39</sup> Through appropriate drug selection, dosing and monitoring, pharmacy can not only decrease adverse events, but also significantly reduce medication expenses. In a true ACO model, the total costs of care includes both ambulatory and inpatient drug utilization. Pharmacy can play a large part in sustaining the health system through controlling overall healthcare costs by reducing admissions and more costly procedures that occur with non-compliance or inappropriate drug therapy.

*Outside of the Pharmacy Silo.* To truly prepare for a sustainable healthcare model, organizations must re-define the role of everyone on the team. Innovative methods using technology must be implemented to improve effectiveness of ambulatory services in our clinics and in the patient's home. This need for patient focused care was highlighted in the 2001 Institute of Medicine report Crossing the Quality Chasm.<sup>39</sup> Some organizations such as University of Minnesota Medical Center, Fairview Health-System, are embracing the ACO model and innovating in their clinics and hospitals.<sup>21</sup> An important part of this innovation relates to staff being in the most appropriate roles to assist other health care professionals. One example is using unit based technicians to assist registered nurses on the patient care unit. Technicians can more efficiently pull medications for medication pass and technicians are better able to solve missing dose issues. As a result, nurses are able to spend more time with patients.

*Conclusion.* The need to evolve the Pharmacy Practice Model has never been as prominent as it is today. The new realities of the healthcare environment require us to think and act differently. Placing the patient at the center of this change will enable us to succeed as we move from a clinically and operationally divided model to a comprehensive integrated patient focused model. As we are increasingly held accountable for safe, effective, efficient care by the government, third party payors, and patients, it is no longer acceptable to just deliver the medication to the floor in a timely manner. We have an obligation to our patients to ensure that their medications are administered properly, that they are properly educated about those medications, and that they have adequate opportunity to ask questions. Pharmacy must be responsible and accountable for drug therapy management. Since the Hilton Head Conference in 1985,<sup>22</sup> the profession has raised the bar to educate pharmacists through the all Pharm.D. degree, residency training and board certification. It is now time to harness this increased training and skill, allowing our pharmacists to provide decentralized direct patient care on evenings and weekends as well as during the Monday through Friday day shift. The comprehensive

integrated model can accomplish this by creating a robust supportive infrastructure. A sustainable model is one in which all staff are used at the “top of their license” and one in which every patient benefits from the unique knowledge and skill of their pharmacist.

#### ACKNOWLEDGEMENT

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#### AUTHORS' INFORMATION

##### **Scott Knoer, M.S., Pharm.D.**

Chief Pharmacy Officer, Cleveland Clinic

Dr. Knoer was previously the Director of Pharmacy at the University of Minnesota Medical Center, Fairview from 2002 – January, 2011

[9500 Euclid Ave HB-105, Cleveland, OH 44195 / knoers@ccf.org](mailto:knoers@ccf.org)

##### **Sam Calabrese, MBA, RPh.**

Associate Chief Pharmacy Officer, Cleveland Clinic

[9500 Euclid Ave HB-105, Cleveland, OH 44195 / calabrs@ccf.org](mailto:calabrs@ccf.org)

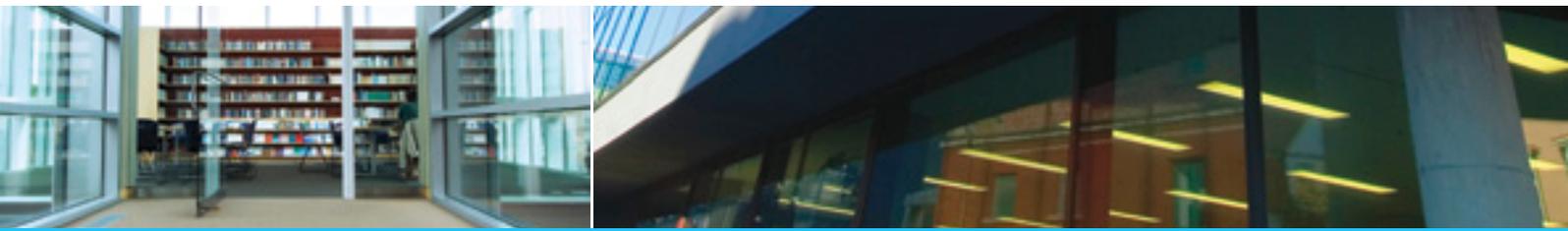
##### **Mort Goldman, Pharm.D., FCCP, BCPS**

System Director, Academic Affairs and International Business Development

Department of Pharmacy, 9500 Euclid Ave. (JJN1-02), Cleveland, OH 44195 / Email: [goldmam@ccf.org](mailto:goldmam@ccf.org)

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# THE FIP ACADEMIC INSTITUTIONAL MEMBERSHIP DEANS FORUM 2011

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# DECREASED COSTS VIA INCREASED ACCESS

## A TECHNOLOGY SOLUTION FOR SUSTAINABILITY

Sunny Lalli

Pharmacy practice worldwide faces an uncertain future. Pharmacists and technicians are faced with working increasingly longer hours with less staff overlap, and ever increasing operating costs. Governments and health system funders are cutting healthcare spending and reducing compensation for drug costs. In many countries, there is a critical shortage of pharmacists and pharmacy support staff. This creates an environment which poses a serious threat to the very sustainability of the profession of pharmacy.

Pharmacy margins in all areas are narrowing, and economic sustainability is becoming an issue. In a number of countries, patients are incentivised (by price) to use internet and mail order pharmacy services that do not allow pharmacist/patient contact. Simultaneously, governments are placing increasing pressures on pharmacists to focus on their cognitive skills, drive down healthcare costs and generate better patient outcomes. These pressures combine to frustrate pharmacists and lead them to question their place in this cost-pressured healthcare environment.

As medication regimes become more complex, the crucial oversight role played by pharmacists is at risk as resources are increasingly constrained. The effectiveness of prescribed medicines is dependent on a number of factors involving the clinician, the pharmacist and the patient. The aim is to develop an effective medication management system by optimising the contribution of those involved. When considering factors which may have a negative impact on the achievement of this goal, the prescribing of the wrong medication, failure of the patient to have their prescription

filled, failure to adhere to the prescribed medication regimen and errors in the dispense process must all be taken into account.<sup>1</sup>

A recent study conducted by Professor Nick Barber has indicated that a minimum of 60% of prescriptions fail to deliver their maximum potential benefit.<sup>2</sup> As a result, various jurisdictions estimate between 5-10% of unplanned admissions and readmissions are related to medication failures.<sup>2</sup>

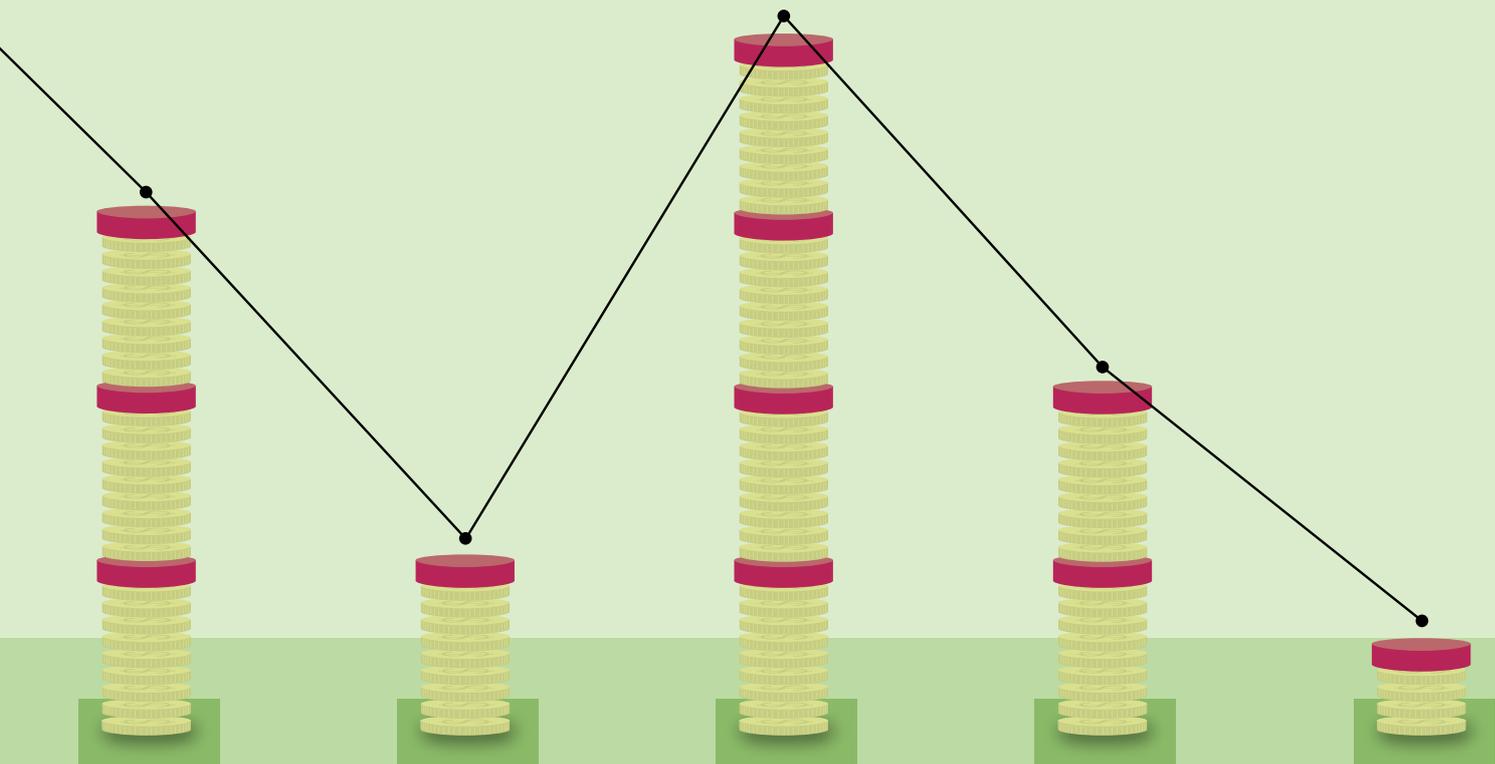
How can the existing model of healthcare delivery as practised by pharmacists adapt to these pressures without compromising patient care, while balancing the increasing demands for higher levels of service from a progressively complex and well informed patient base?

### **“A potential answer to the current crisis may involve embracing a technology solution....”**

A potential answer to the current crisis may involve embracing a technology solution that utilises a different model of healthcare delivery.

Traditionally, pharmacists have embraced technology to enhance service delivery and patient care. Innovations such as electronic patient medication records, along with fax technologies and internet, have greatly improved communication between the various levels of healthcare, and have enabled pharmacists to provide better informed, expedited, and more accurate delivery of care and medications.

PharmaTrust, a Canadian company, has answered the challenge of the looming global healthcare crunch by utilizing “disruptive innovation” to provide a sustainable solution with the development of the fully pharmacist controlled MedCentre. This model combines connective video and teleconferencing technologies to deliver enhanced patient focused care, coupled with accurate medication dispensing.



This dispensing technology provides increased access to pharmacy services in areas where a traditional pharmacy would not be economically viable. The MedCentre uses a true hub and spoke care model, where a centralized counseling centre can be accessed through a simple to use patient interface. A centralized patient profile allows patients to access their prescriptions at any MedCentre within the same network. Surprisingly, connected pharmacy networks do not exist in some industrialised countries, such as Canada.

Critics of the technology charge that it will replace the pharmacist and the absolutely essential patient/pharmacist interaction. Yet, nothing could be farther from the truth. The MedCentre is 100 percent pharmacist controlled, and is merely a highly sophisticated tool designed to increase accessibility of pharmacy services while freeing up the pharmacist from the more technical aspects of the dispensing process – allowing increased focus on cognitive services.

The challenge for the profession of pharmacy is to retain relevance in a health system that faces competing pressures of continually increasing demand for services in a cost constrained funding system. The MedCentre allows pharmacists to become not only the most accessible health care professional, but also creates the tools to enable pharmacists to better integrate into the overall care model, and become valued advisors to other health care professionals in the system, and it does so at a fraction of the cost of traditional pharmacy models.

The MedCentre, by some estimates, requires one tenth the resources that are required to sustain a brick and mortar pharmacy. The footprint of one of these devices is not much larger than most widely available self-service kiosks. Within this relatively compact space, the MedCentre offers a wide range of customization options which include pill counting, pre-packaged medication selection and refrigeration. At a fraction of the cost and resource consumption of a traditional retail pharmacy, the MedCentre can be considered an environmentally friendly alternative to current offerings. This also makes technology such as this an economically attractive option for countries where there is a chronic shortage of healthcare personnel.

**“At a fraction of the cost and resource consumption of a traditional retail pharmacy, the MedCentre can be considered an environmentally friendly alternative...”**

The largest advantage that the MedCentre remote dispensing system has over traditional pharmacy is its ability to be placed at the point of prescribing. It is estimated that only between 50 and 70% of new prescriptions are actually taken to a pharmacy to be filled.<sup>1</sup> Of these, between 48 and 66% are picked up, and an even lower percentage (between 25 and 30%) are taken correctly.<sup>3</sup>

Some barriers to first fill and ongoing adherence include lack of information on the treatment, and ignorance of the benefits and side effects of medication. These issues are

compounded when the patient's lifestyle is not taken into consideration.<sup>4</sup> Add to this limited access to healthcare and there is little wonder why there is an estimated \$290 billion USD cost to the healthcare system due to poor medication adherence.<sup>3</sup> Access to the services and cognitive abilities of a pharmacist have demonstrated a return on investment of \$12.15 per dollar of medication therapy management service provided.<sup>3</sup>

MedCentres can facilitate the delivery of pharmacy services and improve adherence by advancing access through increased convenience of care, educational interventions and elucidating complex medication regimens. Studies have shown that customized counselling providing "cue dose training", and involving pharmacists at the point of prescribing improves health outcomes and adherence to treatment plans.<sup>4</sup>

This model is not new to healthcare. The success of telepharmacy services have led states, such as Washington, to allow technicians to dispense medications to patients if they have completed counselling with a pharmacist via remote webcam.<sup>5</sup>

A 2009 study considered the implementation of a telepharmacy system including point of prescribing access and patient care services beyond basic dispensing.<sup>5</sup>

The study involved 5 clinics linked by an EMR (Electronic Medication Records) and telepharmacy service. Dispensing was accomplished using an automated drug dispensing system. The study found an increase in practice efficiency resulting in an average 5-10 minute reduction in wait times for patients.<sup>5</sup> The private consultations allowed the pharmacist to cater to a patient's specific needs, and provide patient focused care, customised for each individual at each practice location.<sup>5</sup> This study also demonstrated that remote counselling of medication potentially improved compliance, and reduced negative outcomes, through education of the benefits of completing medication courses (although further study was required<sup>3</sup>). The proven benefit was pharmacist satisfaction with counselling and improved time with the patient.<sup>5</sup>

Cost-benefit studies have proven that community pharmacist interventions have resulted in better health outcomes for patients. The cost savings for drug related problems have been shown to far outweigh the costs of pharmacy personnel.<sup>6</sup> Also, the potential to prevent less stringent control of chronic health conditions due to the lack of access to healthcare is tremendous. In fact, chronic disease is responsible for the majority of Healthcare spending (up to \$0.75 of every healthcare dollar<sup>3</sup>) and is responsible for 7 out of every 10 deaths.<sup>3</sup> Pharmacist provided counselling has demonstrated improved health outcomes and improved savings. The cost of chronic disease is \$1.3 trillion, which is expected to grow to \$6 trillion in the US by the middle of this century.<sup>3</sup>

## Conclusion

Research has proven that increased access to pharmacy services provides a marked benefit for patients and the healthcare system. Many people throughout the world, from both developed and developing countries, do not have timely access to medicines and other pharmacy services including advice. Widespread effective delivery of services has been a challenge that, until now, has remained largely unmet.

By employing the capabilities of remote dispensing devices, such as the MedCentre, to deliver a combination of pharmacist counselling and medication dispensing while simultaneously reducing the cost of delivering these services, pharmacists will begin to meet this challenge. How much of the challenge we meet is up to us.

## AUTHOR'S INFORMATION

**Sunny Lalli, RPh, NCMP.**

*Director of Pharmacy PharmaTrust*

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# SUSTAINING NAMIBIA:

IMPROVING THE NATION'S HEALTH THROUGH  
SUSTAINABLE PHARMACY COMPETENCY

Timothy Rennie  
Lischen Haoses-Gorases, Jennie Lates, David Mibirizi,  
Peter Nyarang'o, Evans Sagwa

Located in sub-Saharan Africa, Namibia is the second least densely inhabited country in the world with a population of approximately two million people. According to the United Nations Development Programme, Namibia is ranked first in terms of inequality and uneven distribution of wealth, as measured by the Gini index<sup>1</sup>. This relatively small population also faces some momentous health challenges. In 2009, Namibia had the fourth highest incidence of TB in the world.<sup>2</sup> Numbers of multi-drug resistant TB (MDR-TB) and extremely drug-resistant TB (XDR-TB) were reported to be 214 and 8 respectively.<sup>3</sup> Namibia is also among the countries most affected by HIV/AIDS. For example, in 2010 the HIV infection rate in pregnant women attending Antenatal Clinics was 18.8% with wide inter-country variation ranging from 4.2% to 35.6%.<sup>4</sup> In addition, with a reported incidence of almost 4% in 2009<sup>5</sup> Namibia still faces a huge challenge in its pursuit of malaria eradication.

In the face of these challenges, Namibia has an acute shortage of healthcare personnel including in pharmaceutical care. This is an issue of concern not just for Namibia but for sub-Saharan Africa where there is a general dearth of pharmacists and an insufficient training capacity in pharmacy education.<sup>6</sup> In Namibia it is estimated that approximately 260 pharmacists will be needed to meet demand by 2020, an increase of 50% of pharmacists practicing in 2009.<sup>7</sup> In addition, the current pharmacist workforce consists of a small number of Namibians, and a large number of foreign pharmacists on short-term contracts – a potential threat for sustainable healthcare. The Ministry of Health and Social Services (MoHSS) has been training Pharmacist's Assistants (2 year certificate level course) since 1992 and these staff form the majority of pharmacy staff in the public sector. Whilst this provision has been made and the legal structure for pharmacy regulation and representation are in place there has not been education for pharmacists since Namibian independence in 1990. In February 2011, however, the University of Namibia (UNAM) admitted its first Bachelor of Pharmacy (BPharm) students. We report on the process of instituting the pharmacy degree in Namibia and how we are approaching sustainability in relation to pharmacy education.

## Developing a pharmacy curriculum for Namibia's needs

The development of the pharmacy curriculum used the concept of competency-based education and training (CBET).<sup>8</sup> The CBET approach focuses on developing and implementing education and training programmes that are directly relevant to the local context and employment needs of a particular sector. It is based on the application of knowledge, skills, and attitudes to the standards expected in employment. *Figure 1* illustrates the framework for CBET.



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Figure 1. Framework for curriculum development and implementation

A six-step participatory approach engaged key stakeholders between January and July 2010 facilitated by an international consultancy team comprising of both process and content experts. UNAM established a technical working group (TWG), in collaboration with the Ministry of Health and Social Services (MoHSS) and the USAID-funded Strengthening Pharmaceutical Systems (SPS) project implemented by Management Sciences for Health (MSH). The TWG was comprised of pharmacists from public, private and nongovernmental organization sectors, and representatives from the Health Professions and Pharmacy Councils, Pharmaceutical Society of Namibia, and UNAM.

Step 1 used a functional analysis to identify the roles and functions of pharmacists in Namibia followed by the definition of the competencies necessary to fulfil the roles and functions. This procedure involved identifying health needs facing the country, reviewing the scope of practice and range of pharmaceutical services offered by pharmacists, profiling required competencies for providing these services, and translating these competencies into exit learning outcomes, learning objectives, and curriculum content.

In step 2, key stakeholders were consulted, made aware of the competency profiling exercise, and urged to advocate for competency-based education and training; this led to production of draft competency framework. The TWG held three workshops between February and May 2010 that provided technical inputs for developing the competency framework, qualification, and curriculum for the UNAM pharmacy degree.

Step 3 involved the completion of the competency framework and work began on developing the curriculum. This included the benchmarking of the draft curriculum against the competency frameworks, qualifications, and curricula of pharmacists in other countries at both regional and international levels, and adaption to this in the context of the Namibian setting. Countries involved in this process included South Africa, Kenya, Rwanda, Zimbabwe, Tanzania, New Zealand, India, Canada, United States, Ghana, Thailand, United Kingdom, and Australia.

In step 4, various stakeholders, namely, UNAM, the Namibia Qualifications Authority (NQA), Health Professions Councils of Namibia/Pharmacy Council, MoHSS, pharmacists from both the public and private sector, and the Namibia Training Authority were consulted on the competency framework, qualification, and curriculum and invited to participate in the project. The consultations ended with a National Consultative Forum that was officiated by the Minister of Health & Social Services and the Vice Chancellor of UNAM.

Step 5 involved a team of international experts in various pharmaceutical disciplines reviewing the draft curriculum and collating input from other off-site pharmaceutical expert reviewers. The off-site reviewers included Professors and Deans of Schools of Pharmacy from the University of Washington, University of Nairobi, Muhimbili University of Health and Allied Sciences, National University of Rwanda, Nelson Mandela Metropolitan University, and the Purdue University School of Pharmacy and Pharmaceutical Sciences. A smaller team from the University of Western Cape and the University of Zimbabwe then met in Windhoek on July 6-8, 2010, to review the curriculum before it could be submitted to the University of Namibia Senate for approval and then to the Pharmacy Council and the Namibia Qualification Authority for accreditation.

In step 6 the School of Medicine Board made the final revisions in conformity to the university requirements before submitting the curriculum to the university Senate for approval. In September 2010, the Senate approved the BPharm (Hons) curriculum for implementation in 2011.

In summary, a competency framework was developed outlining the roles and functions of a pharmacist in Namibia and the major learning outcomes and secondary learning outcomes necessary for education. The competency framework was used as a basis for the development of the four-year Bachelor of Pharmacy qualification and curriculum that was intended to produce a 'generalist' pharmacist.

### Instituting a sustainable pharmacy programme – the next steps

Following the development of the pharmacy curriculum, it was necessary for UNAM to provide for pharmacy instruction and training. As the School of Medicine had already been founded, taking its first students in 2010 for the Bachelor of Medicine and Bachelor of Surgery (MBChB) degree, it was reasonable to explore how the curriculum's for pharmacy and medicine could work in tandem given that both pharmacy and medicine would be taught within the Faculty of Health Sciences. It was decided to integrate the taught pharmacy modules within the MBChB course as there was much in common between the two, especially in the first year of studies. The Department of Pharmacy was established within the School of Medicine with the medium- to long-term aim of instituting a School of Pharmacy within the Faculty of Health Sciences.

A broader issue for both pharmacy and medicine, as newly taught professional degrees, is how to introduce and maintain high standards of education. Both programmes will be evaluated but quality assurance measures must be in place to ensure a high standard of education. This will necessarily demand proactive and continuous review of the new curriculums, improving standards of teaching and laboratory practice, accumulating student performance metrics and feedback, and continuing to gather insight from internal and external colleagues and collaborators. Ultimately, the aim is to produce a competent pharmacist that is relevant for Namibia and this will require involvement especially of the regulatory bodies and practicing pharmacists within Namibia.

Due to Namibia's low population, the four-year degree course is expected to alleviate the shortage of pharmacists nationally within a relatively short period of time. However, in the absence of country-based pharmacy education beyond the BPharm degree, there is an immediate need for maintaining and improving the quality of practicing pharmacists both in the public and private sectors. In addition, a coherent career pathway would not only facilitate the academic advancement of existing pharmacy personnel and motivate the workforce to remain in Namibia but is also likely to lead to improved quality and ultimately better patient care. In-service training and education is likely to be supported in the future by the Pharmacy Department. Whilst a long-term goal will be to establish accredited post-graduate education, Continuing Professional Development (CPD) could be introduced more rapidly. Indeed, as CPD is a mandatory requirement, as stipulated by the Health Professions Council and Pharmacy Council of Namibia, it is all the more pertinent to introduce a programme as a matter of priority.

The University of Namibia is currently instituting a CPD unit and the Faculty of Health Sciences is also exploring the feasibility of providing CPD. It is rational that CPD is mapped against standards of care and pharmacy-related competencies. Developing a comprehensive competency framework for health service provision on which to base CPD could be part of a wider strategy to institute further post-graduate education and training. The approach to this strategy could be similar to the development of the pharmacy curriculum – needs-based around what Namibia requires of its pharmacists and other healthcare workers. This brings up the subject of the wider pharmacy workforce. The existing pharmacist workforce is supported – and in the light of the dearth of pharmacists sometimes substituted – by Pharmacist's Assistants (PAs). PAs are trained by the MoHSS' National Health Training Centre (NHTC) in Namibia's capital city Windhoek which is currently accrediting its 2-year Certificate course. However, what is absent from the pharmacy flora is a more specialized technical group that could look beyond dispensing and towards roles that would free pharmacists to develop their roles and utilize their training and medicines expertise more appropriately. This cadre of pharmacy personnel could be developed from the existing PA Certificate course and the existing workforce or could be developed

in a separate programme. This does, however, require the articulation of the gaps in pharmacy provision to demonstrate the added value. Hence, if both the pharmacist and PA competencies are mapped against an ideal for provision of pharmaceutical care, there would be a better understanding of the strategic direction.

In tandem with pharmacy education, there is also a demand for research and publication. A simple search on medical literature databases will demonstrate the lack of published research in Namibia in key areas such as TB and HIV let alone pharmacy. In addition, there is an absence of a coordinated pharmaceutical industry in Namibia. Whilst it is necessary to conduct research in pharmacy and pharmaceutical sciences in Namibia, it is first vital to build the infrastructure to support this as well as the forums to communicate the work. Nevertheless, the Pharmacy Department is well placed to develop and support sustainable pharmaceutical and health services research in Namibia. On the 29<sup>th</sup> April 2011 the new School of Medicine campus was inaugurated within which the Pharmacy Department will be sited. The focus now should be on a dedicated research programme integrating health disciplines within the Faculty of Health Sciences and biomedical, health services research and Namibian research priorities.

### Managing partnerships – fruitful collaborations

The Department of Pharmacy cannot achieve these goals on its own. Already partially supported by a non-governmental organisation and sitting as a department within the School of Medicine, the new Pharmacy Department – and future Pharmacy School – will continue to gain from the support of the University of Namibia, partners within Namibia, as well as key external partners globally. As such, the Namibian Pharmacy Department is looking forward to developing its links and participating in broader educational initiatives and research. As previously stated, pharmacy education in Namibia is a part of the general need for pharmacy education in sub-Saharan Africa.<sup>6</sup> The Pharmacy Department will best serve Namibia if it is an active partner in the wider region of which it is a part. As such, the department can engage with the global competency framework<sup>9</sup> and other activities to ensure representation and to acquire added value for the pharmacy programme.

Nonetheless, the focus must primarily be on educating pharmacists for Namibia and, secondarily, improving the existing and broader pharmaceutical workforce. Collaborations must be productive if they are to justify the time and resources invested in them, and they should benefit all parties involved. The School of Medicine is coordinating both internal and external collaborations in ensuring that there are not just milestones attached to any expected outputs but also that funding is sought to support activities that arise from partnerships.

### How to measure success – what will success look like?

Whether or not the pharmacy programme is ‘successful’ will be a difficult yet important question to answer. The programme will operate on different levels and for different purposes, and there is a great deal of subjectivity. Also, as pharmacists are and will be educated and trained in multiple settings, it will be very difficult to pinpoint the responsibility of the success. What can be said, however, is that success will be measured not just quantitatively. Success will go beyond ensuring enough pharmacists are educated and enough patients are better served. One measure of how successful the programme is will be to evaluate how well integrated both pharmacists and educators are into the public and private health system. How seamless is the transition of the graduate into an internship programme? How well do pharmacists truly operate within the multidisciplinary team? Are they respected as medicines experts? Can they specialize through further training? Broader than this, how does pharmacy contribute to public health and will training more pharmacists and improving the quality of pharmaceutical care impact on health outcomes in a demonstrable way? What impact does any research output have – how well is it orientated around Namibia’s needs and how well is it communicated? How effective are pharmacists in leadership, management and policy? How does pharmacy change public perceptions both of the profession and also health – do they get a positive health message across? These questions – and many more – will entertain the academics, pharmacists and politicians of Namibia for many years to come. However, there is a great opportunity in this. Almost unique to Namibia is the previous absence and future presence of pharmacist education. In a structured and scientific approach it may be possible to build up a picture of the success or inability of pharmacy education to impact on health outcomes. This will demand a coordinated approach learning from best practices across the world and we look forward to the challenge.

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### AUTHORS’ INFORMATION

#### **Timothy Rennie**

*Faculty of Health Sciences, University of Namibia, Management Sciences for Health, Namibia*

#### **Dr Lischen Haoses-Gorases**

*Faculty of Health Sciences, University of Namibia*

#### **Jennie Lates**

*Pharmaceutical Services, Ministry of Health and Social Services*

#### **Dr David Mbirizi**

*Management Sciences for Health, Namibia*

#### **Prof. Peter Nyarang’o**

*Faculty of Health Sciences, University of Namibia*

#### **Evans Sagwa**

*Management Sciences for Health, Namibia*

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# REBUILDING PHARMACEUTICAL SYSTEMS IN AFGHANISTAN

## ASSURING SUSTAINABILITY BY DEVELOPING HUMAN RESOURCES

*Heidarzad, N; Amarkhail S; Hakimyar S; Ehsan, J;  
Ayoobi, N; Wong, S; Morris, M; Wuliji, T*

Following over 30 years of conflict in Afghanistan, the Ministry of Public Health, together with various partners, are actively rebuilding the pharmaceutical system to provide safe, affordable, and equitable access to medicines. Pharmaceutical system structures and processes are being strengthened; however, developing the pharmacy workforce is critical to ensuring the sustainability of these efforts. The small number of pharmacists and pharmacy assistants available are not able to meet the country's health sector needs.

The General Directorate of Pharmaceutical Affairs, working with relevant institutions and in particular, the General Directorate of Human Resources of the Ministry of Public Health, is responsible for all activities related to creating and maintaining a sustainable workforce in the pharmaceutical sector, including planning, training, accreditation, and recordkeeping.

The pharmacy workforce plays a vital role in the health system, providing services ranging from manufacturing and regulating medicines to distributing and dispensing medicines. To provide quality services in a sustainable manner, the workforce must have the competencies and skill set to deliver services that can meet market demand.

### The current pharmaceutical human resources situation in Afghanistan

Analysis of student registration records shows that 2,207 pharmacists graduated from Kabul University's Faculty of Pharmacy from 1962–2009. As *Figure 1* shows, the school did not graduate pharmacists in some years because of civil unrest or curriculum changes. During the same period, 919 pharmacist assistants and 354 compounders graduated. The government's current estimate of registered pharmacists and assistants is around 3,000. However, with 12,462 private pharmacies in the country alone, the ratio of pharmacy staff to private pharmacies is approximately one to four. According to Afghanistan pharmacy regulations, with the exception of pharmacies in rural areas where recruitment and retention are difficult, pharmacies are required to be staffed by a licensed pharmacist, pharmacy assistant, or person of equivalent experience. However, with the majority of pharmacies located in urban areas, the one to four ratio suggests that most pharmacies are not in compliance.

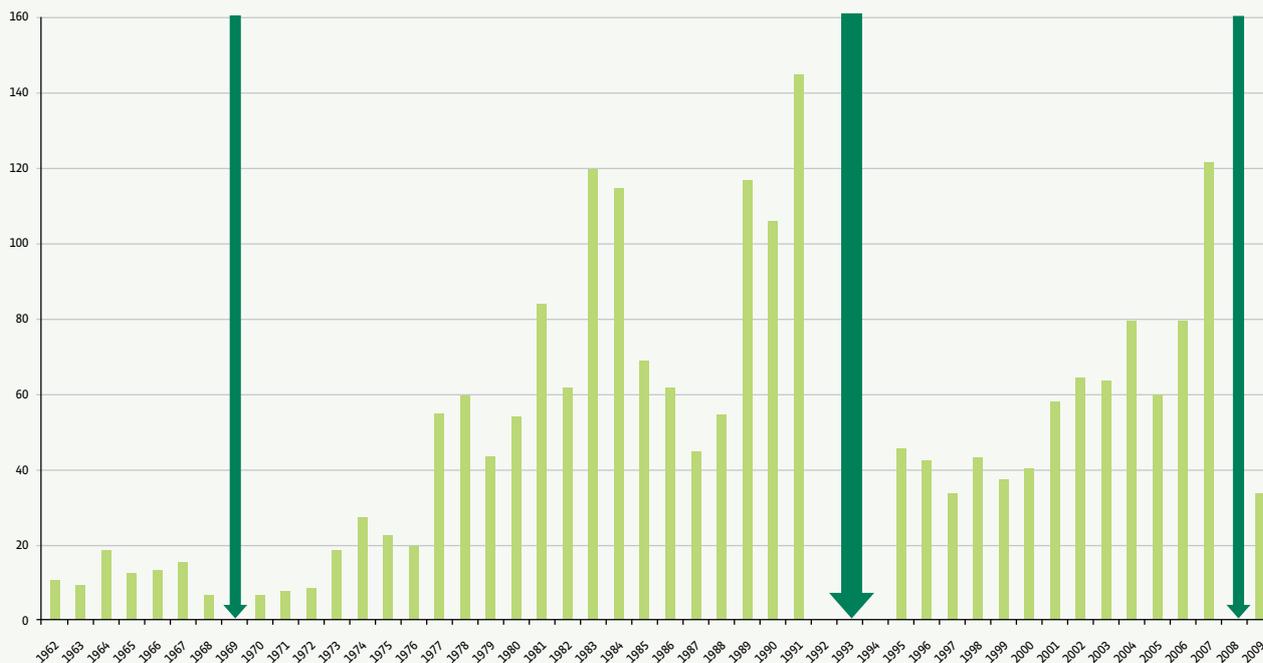


Figure 1.

In addition, Afghanistan has 18 drug manufacturers, about 150 to 200 functioning drug and medical equipment importing companies, 142 wholesale pharmacies, 585 health facilities in the private sector, and 2014 health facilities in the public sector – all of which require pharmaceutical expertise. The government has no data on the number of pharmacy personnel by cadre employed in such settings, which adds to its difficulty in quantifying pharmacy workforce needs. Complicating the scenario is the fact that over the last few decades, the number of unskilled and informal workers providing pharmaceutical services has grown substantially in both the private and public sectors, particularly in the supply and sale of medicines. Professional titles and qualifications of pharmaceutical personnel need to be clarified, given the lack of defined roles of professionals and nonprofessionals that currently provides pharmaceutical

services. If unchecked, these informal hiring practices could have negative health consequences.

Pharmacists graduating from the Faculty of Pharmacy often find themselves working outside the pharmaceutical sector. Despite the significant need for a skilled pharmacy workforce to help rebuild the health system by providing pharmaceutical services in hospitals, pharmacies, pharmaceutical agencies, and academia, positions are in short supply because hiring regulations are not enforced, and the hiring process is not transparent. As a result, unqualified people fill positions, while newly qualified graduates move on to other professional sectors. On the other hand, available jobs in rural areas go unfilled because of security and other concerns. For pharmacists looking for employment in the public sector, an average monthly salary range from 110 to 200 U.S. dollars and the poor benefits remain major barriers to service, particularly given the rising cost of living in Afghanistan.

Pharmacy students in Afghanistan



### Systematic challenges to a sustainable pharmaceutical workforce

Currently Afghanistan has no human resource planning mechanism or clear policies, no adequate data on the distribution of or need for pharmacy personnel among different facility types and sectors, and no knowledge of the competency level of the workforce providing pharmaceutical services. Information that is available is not reported because of a lack of a reporting system: the Ministry of Public Health’s Human Resources Department has data on the number of pharmacy personnel employed in pharmaceutical sectors; the General Directorate of Pharmaceutical Services has information on the number of pharmacy establishments; and Kabul University Pharmacy School and Ghazanfar

*Stakeholder Forum*

Institute of Health Science have a database of annual graduates; however, none of this information is regularly updated, aggregated, or shared among the government departments or ministries. Without reliable data, the government cannot determine the demand for pharmacy personnel and cannot develop an accurate human resources development strategy that either reflects actual workforce needs or is effective, appropriate, or sustainable.

In addition to knowing how many workers are needed in the pharmaceutical sector, the workforce needs to be equipped with adequate skills to meet market needs and to ensure the quality of pharmaceutical services delivery. Currently, Afghanistan has no procedure to determine the required competency for each pharmaceutical service area, so there is no way to know if the education or training offered matches market demands or is even useful or applicable. Other training issues include a lack of standardization or accreditation of training programs, lack of continuing education and training areas that have evolved ad hoc rather than by following a strategic plan.

### **Toward development of a human resources strategy: the first step is assessing the workforce**

Creating a sustainable workforce requires quantifying the actual workforce needs, forecasting future workforce demands, having policies in place to guide interventions, and identifying the needed competencies and skill set for each cadre. Toward this end, stakeholders recommended developing a program to assess the current pharmaceutical workforce situation and develop a human resource planning, management, and development strategy. The program's purpose will be to identify competencies, analyze data to characterize problems, and develop solutions to achieve

strategic objectives in line with the needs of the country's health sector. Before the development of a strategy or any interventions to address these issues, there should be an evidence-based assessment of the overall human resource situation in the pharmaceutical sector.

The General Directorate of Pharmaceutical Affairs and Ministry of Public Health is working with the Strengthening Pharmaceutical Systems Program to examine policies and planning at the national level, workforce and practice distribution at the provincial level, and workforce competencies at the individual level. Understanding the importance of sustainability and country ownership, the General Directorate of Pharmaceutical Affairs and the Ministry of Public Health have engaged in the assessment process from the beginning. They identified the pharmaceutical human resources problems, developed the assessment objectives, and identified competency areas in pharmaceutical services that need to be examined.

A forum was held to engage national stakeholders in the assessment process, and they reached consensus on a competency framework for pharmaceutical services. The assessment will require coordination among departments and offices involved in the pharmaceutical human resources development process to facilitate information collection from providers of pharmaceutical services (pharmacists, pharmacist assistants and other pharmacy workers); sales and distribution agents; and personnel involved with pharmaceutical supply, import, manufacture, quality assurance, and inspection to set objectives for the country's pharmaceutical sector.



HR Core Team

The Pharmaceutical Human Resources Assessment Core Team is currently undertaking the first phase of the assessment, which will include gathering national data on human resources and service providers in the pharmaceutical sector. The team will conduct the second phase of surveys at the health facility and individual levels in ten provinces between June and August, 2011. The team will share findings from this assessment with stakeholders and solicit their input to draft a strategy for pharmaceutical human resources planning, management, and development that will be specific to the Afghan context. The extensive involvement and contribution from local stakeholders encourages political commitment and adaptation of the strategy and will ultimately lead to a sustainable pharmaceutical system that delivers accessible, affordable, and quality services in an efficient and equitable manner.

#### ACKNOWLEDGMENT

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#### AUTHORS' INFORMATION

**Heidarzad, N, Amarkhail S.**

General Directorate of Pharmaceutical Affairs, Ministry of Public Health, Afghanistan

**Hakimyar S.**

General Directorate of Human Resources, Ministry of Public Health, Afghanistan

**Ehsan, J., Ayoobi, N., Wong, S., Morris, M.**

Management Sciences for Health, Strengthening Pharmaceutical Systems Program

**Wuliji, T.**

Pharmaceutical Systems and Workforce Consultant

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# SUSTAINING PHARMACY EDUCATION

## *WHERE PHARMACISTS ARE FEW*

*Andrew Brown*

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The region of the South Pacific has a population of approximately 9.6 million people distributed among a number of small island states with populations varying from 1350 (Tokelau) to 6,000,000 (Papua New Guinea – PNG). Within these countries there exists a diverse range of cultures including: Melanesian, Micronesian and Polynesian.

Limited human resources are widely recognised as an impediment to achieving the health-related Millennium Development Goals (MDGs) in this region with recognition that many maternal and child health related deaths in Pacific Island Countries (PICs) may be prevented with readily available essential medicines provided by suitably trained health personnel (WHO 2006).

It is noted that on average across PICs there is less than 1 pharmacist per 10,000 population (Brown 2009), a ratio similar to that found in sub-Saharan African countries (FIP 2009).

The International Pharmaceutical Federation (FIP) acknowledges that healthcare facilities cannot operate without medicines. The availability of both medicines and a pharmacy workforce in adequate numbers with appropriate competencies is crucial to ensuring a well-functioning pharmaceutical system (FIP 2009).

This FIP observation is supported by the World Health Organisation (WHO), Australian Agency for International Development (AusAID) and other agencies active in the region, which report continued problems in maintaining the supply of essential medicines to the clinics and aid posts of PICs. The majority of the population in PICs resides in rural areas which are serviced by primary health care facilities. The inadequacy of human resources is identified as one of the key factors affecting essential medicine supply to these facilities and the people who rely on them.

Strengthening the pharmaceutical sector has been a long-term political priority for PICs. This priority has arisen from recommendations from the meetings of Ministers and Directors of Health for PICs held in Yanuca Island, Fiji, (March 1995), Rarotonga, Cook Islands (August 1997), Palau, (March 1999) and more recently Madang, Papua New Guinea (July 2009).

This need to improve pharmacy services in PICs has prompted the United Nations Population Fund (UNFPA) and the University of Canberra (UC) to investigate the knowledge required to develop sustainable approaches to health personnel competency development in the area of essential medicine supply security, using reproductive health commodities (RHCS) as tracer medications in the medication supply system. The following sequential questions form the basis of this action research:

- I. What culturally sensitive principles need to be considered when assessing the learning needs of South Pacific pharmaceutical health personnel?
- II. What information currently exists, addressing competencies and training requirements for health care workers involved in essential medicines supply management (EMSM) in PICs?
- III. What are the competencies required by the various cadres of health care workers in the area of EMSM?
- IV. What is the assessment of training materials currently used for any health care worker involved in EMSM in PICs?
- V. What effective pedagogical approaches can be developed that show the development of country and cadre specific competencies in the area of EMSM?
- VI. Can these new pedagogical approaches be applied to a variety of PICs?
- VII. Can these new pedagogical approaches be transferred to local institutions of learning for sustained use?

This paper seeks to present the main workforce issues surrounding the practice of pharmacy in PICs and outlines a process that may lead to a sustainable approach for the ongoing development of EMSM competencies in various cadres within the region.

### Pharmacy Workforce Issues

During the period January 1998 to December 2009 the author conducted an unpublished review of the published and “grey” literature investigating competency, training and work force requirements for health personnel involved in essential medicines supply management in PICs (Brown 2009). The following were the main themes generated by the review:

*Competency.* There is a scarcity of information documenting the EMSM competencies required by health personnel in the region. Currently available competency documentation is limited to higher domain competencies of healthcare or to certain cadres including: PIC nurses, pharmacists in Papua New Guinea and Fiji, and pharmacy assistants/technicians in Fiji. Detailed EMSM competencies were not included in these competency frameworks.

The review shows that there is a definite lack of defined competency frameworks essential as a basis for developing suitable training for the cadres of staff involved in EMSM.

*Workforce Planning.* Individual health workforce plans exist for a number of PICs but these are not universal and their usefulness is limited by a number of factors including: significant variations in the availability of workforce data due to a lack of robust Human Resources for Health (HRH) data repositories, a lack of disaggregated workforce data, limited pre-service training and continuing education & professional development offered in PICs, and limited coordination with external partners engaged in HRH within PICs.

*Education and Training.* The majority of data relating to education and training in the region was extracted from individual PIC workforce plans from 1998, more recent in country reviews of the pharmaceutical sector and medicines supply systems of individual PICs (2006-2009), and regional workshops where issues relating to human resources development for the pharmaceutical sector were discussed.

These reports highlight a number of key findings: the need for education and training is clear, an individual country approach is desired, a systematic approach to human resources management is desired, support from regional institutions is requested, the approach to training needs specific structural features for it to be understood and used, a collaborative regional workforce is ideal, a collaborative approach to training is ideal, a review of available training materials is essential, external vertical programs should work to integrate into PIC health system structures.

This literature review confirmed that the data available to inform decision making is limited and a more consistent systematic approach to the collection of human resource data is required for sustained improvement to occur.

### Current Pharmacy Education and Training in PICs

The Fiji National University and the University of Papua New Guinea are the only universities in the region providing locally trained pharmacists to a diploma or degree level with most of these graduates going to the private sector. Limited vocational training is available for the pharmacy support workforce (e.g. pharmacy assistants/technicians) in the region, apart from semi structured localised training in the Solomon Islands and Tonga. The majority of training for the pharmacy support workforce is conducted as unstructured on the job training.

Nursing schools throughout the region continue to provide local training for various cadres of health care worker. Health care workers including nurses need to understand medicines management in order to use the country’s medical supply systems effectively. This material is often missing from the health curriculum. Skills in appropriate medicines management often assumed with the result that most health care workers and nurses lack the skills they require for this essential part of their day to day work.

### Staff Retention and Job Satisfaction

Initial education and training for health care workers is an essential component of developing a strong health workforce base but this initial work needs to be supported by strategies to ensure staff satisfaction and retention to build capacity and workforce sustainability into the future.

In 2009-2010 the author conducted field visits to the Federated States of Micronesia, Kiribati, Tonga, PNG, Vanuatu, Solomon Islands and Tuvalu as part of the UC-UNFPA research program. Informal interviews and discussion groups conducted in training workshops indicate that: issues of geographical isolation in rural and remote environments, a lack of supervision and contact with supervisors, inadequate professional and personal facilities, access to training and workload were all significant issues that affected staff satisfaction and the ability of staff to complete their job satisfactorily. Hawthorne and Anderson (2009) in their review found similar factors affecting pharmacist retention. WHO also focused on this area with the release of their report in 2010, *Increasing Access to Health Workers in Remote and Rural Areas, Through Improved Retention* (WHO 2010). *Figure 2.*

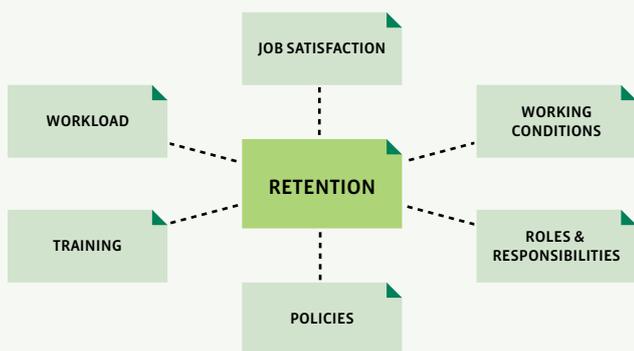


Figure 2: Factors Affecting Pharmacists Retention (Hawthorne and Anderson 2009).

### Pharmacy Support Workforce – An overview of the variety of cadres and their roles

Medicines supply management is seen as the main activity of the pharmacy services division within the Ministries of Health in PICs. In medicines supply management the expected competencies for various health workers differ depending on their level of work: primary (Level 1), secondary (Level 2), tertiary and at the national medical stores level (Level 3).

At the primary level there are mostly nurses and nurse aides managing medicines supply. At secondary levels there are pharmacy assistants/ pharmacy technicians who have the additional responsibility of supplying primary level facilities. The tertiary level, often with country wide responsibilities, is mainly serviced by pharmacists or senior stores personnel.

*Figure 3.*

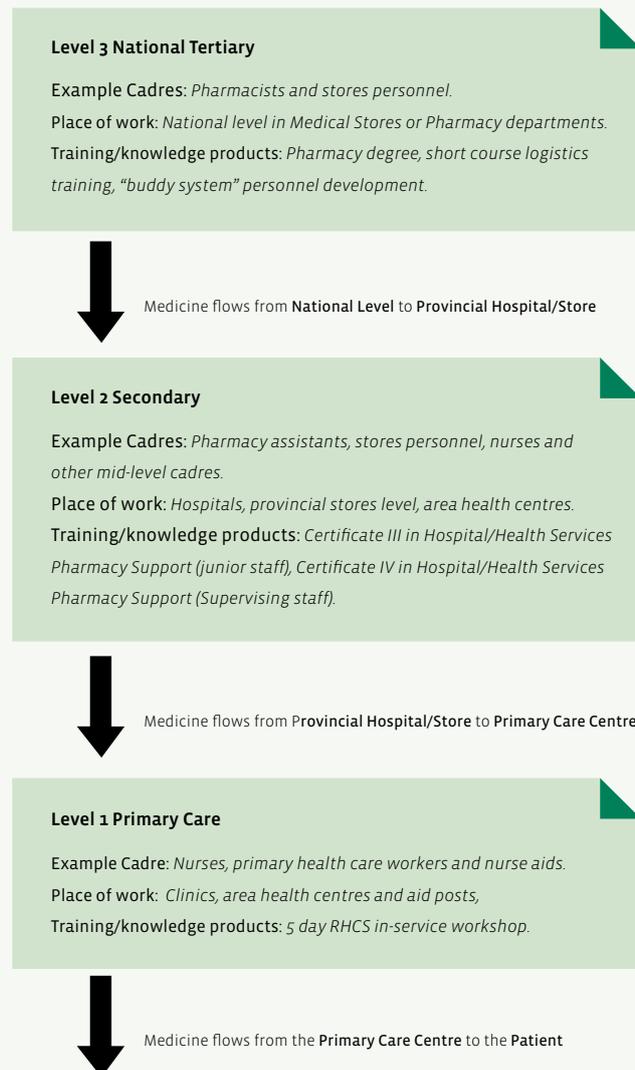


Figure 3. An overview of Pharmacy Support Workforce Cadres in PICs.

With an undersupply of pharmacists in the region assistant pharmacists, dispensers, pharmacy assistants, pharmacy technicians, nurses, stores personnel and other cadres are often required to take on roles that would normally be filled by pharmacists within the supply system. A variety of cadres are used and these cadres may have varied definitions between countries.

The varied use of pharmacy assistants, pharmacy technicians and other mid-level cadres has been noted globally by FIP (2009) and the Global Health Workforce Alliance (GHWA, WHO 2010).

Smith provides the following definitions for Pharmacy Technicians and Pharmacy Assistants following her review in Fiji in 2006 (Smith 2006).

*“Pharmacy Technicians are performing a variety of tasks associated with dispensing medicinal products under the guidance of a pharmacist OR, unsupervised if a pharmacist is*



Pharmacy Services in the South Pacific

not available. A pharmacy assistant is defined as performing a variety of tasks associated with dispensing medicinal products under the guidance of a pharmacy technician”

It should be noted that these definitions differ from the International Labour Organisation definition (ILO 2008);

“Pharmacy technicians and assistants perform a variety of tasks associated with dispensing medicinal products under the guidance of a pharmacist, or other health professional”.

Smith’s definition reflects the reality of the practice of pharmacy in Fiji, which is similar to the practice of pharmacy in other PICs where pharmacy technicians and some assistants work unsupervised in many facilities.

In July 2010 the author conducted a three week detailed field visit to Vanuatu to conduct competency mapping of the various cadres involved in pharmacy services. The range of posts that exist within the pharmacy department across Vanuatu include: pharmacists, pharmacy manager, pharmacy intern, assistant pharmacist, dispenser and store person.

Locally these cadres are defined as:

*Pharmacist:* Staff member that has completed a traditional Bachelor of Pharmacy degree or equivalent.

*Pharmacy manager:* The staff member in charge of a provincial pharmacy who does not have a pharmacy degree.

*Pharmacy intern:* A staff member having completed a bachelor of pharmacy degree but undergoing twelve months local internship training.

*Assistant pharmacist:* A staff member who has significant pharmacy experience but does not hold a pharmacy degree. She/he may hold a certificate.

*Dispenser:* A staff member with the main task of outpatient dispensing including associated pre-packing.

*Store person:* A staff member with the main task of completing orders for dependent facilities and responsible for the movement and organisation of pharmacy stock.

Although each of these posts exists within the Ministry of Health in Vanuatu, a consistent application of cadres across provinces does not appear to exist, except for the cadre of pharmacist and dispenser.

Regardless of the cadre of the pharmacy staff available, and their level of training, the full range of pharmacy activities is still expected and was provided including: outpatient and inpatient dispensing, ward supply and clinic supply activities. Staff availability may change at any point in time with the services made available remaining constant.

A clear distinction was made regarding the clinical functions of participating in ward rounds, adverse drug reaction reporting and medication consultation with doctors regarding medication options in the event of a stock out. These functions were clearly seen as the role of the pharmacist.

### Education as Part of Sustainable Health Systems Strengthening

Potter and Brough (2004) provide a systematic approach to achieving sustainable health systems including pharmacy, describing the interrelationship between: tools; skills; workers and infrastructure; and structures, systems and roles in the wider health system. From this model it is clear that unless education is considered in the light of these elements it may not be relevant and certainly will not be effective or sustainable. *Figure 4.*

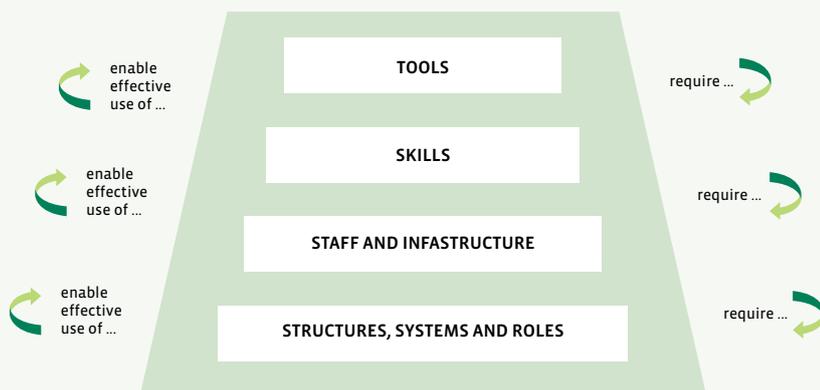


Figure 4. Capacity pyramid (Potter and Brough 2004).

Furthermore, Potter and Brough identify nine component elements and their scope which form part of these elements and demonstrate that education needs to be embedded in a larger system to be effective. *Table 1.*

Component	Scope
Performance capacity:	Are the tools, money, equipment, consumables, etc. available to do the job?
Personal capacity:	Are the workers sufficiently knowledgeable, skilled and confident to perform properly? Do they need training, experience, or motivation? Are they deficient in technical skills, managerial skills, interpersonal skills, gender-sensitivity skills, or specific role-related skills?
Workload capacity:	Are there enough workers with broad enough skills to cope with the workload? Are job descriptions practicable? Is skill mix appropriate?
Supervisory capacity:	Are there reporting and monitoring systems in place? Are there clear lines of accountability? Can supervisors physically monitor the workers under them? Are there effective incentives and sanctions available?
Facility capacity:	Are training centres big enough, with the right workers in sufficient numbers? Are clinics and hospitals of a size to cope with the patient workload? Are workers residences sufficiently large? Are there enough offices, workshops and warehouses to support the workload?
Support service capacity:	Are there laboratories, training institutions, bio-medical engineering services, supply organizations, building services, administrative workers, laundries, research facilities, quality control services? They may be provided by the private sector, but they are required.
Systems capacity:	Do the flows of information, money and managerial decisions function in a timely and effective manner? Can purchases be made without lengthy delays for authorization? Are proper filing and information systems in use? Are workers transferred without reference to local managers' wishes? Can private sector services be contracted as required? Is there good communication with the community? Are there sufficient links with NGOs?
Structural capacity:	Are there decision-making forums where inter-sectoral discussion may occur and corporate decisions made, records kept and individuals called to account for non-performance?
Role capacity:	This applies to individuals, to teams and to structure such as committees. Have they been given the authority and responsibility to make the decisions essential to effective performance, whether regarding schedules, money, workers appointments, etc?

Table 1: Nine component elements of an effective health system (Potter and Brough 2004).

Building on Potter and Brough (2004), WHO points to six “building blocks” that form the foundation of a framework for sustainable health systems: service delivery, health workforce, information, medical products, vaccines and technologies, financing, and leadership and governance (WHO 2007).

These “building blocks” clearly identify what is essential within the health system. The blocks cannot be considered in isolation, as the six “building blocks” are interrelated. Within this model education forms part of a subset of elements that contribute to “health workforce”.

With an increasing understanding that health workforce is the rate limiting step to the improvement of health systems in many countries the first Global Forum on Human Resources for Health in Kampala, Uganda in 2008 endorsed the Kampala Declaration and Agenda for Global Action. This declaration sets out areas for action over the next decade by all partners in response to the health workforce crisis.

Translating these strategies into action at the country level has in many cases been challenging, particularly given the complex and ever-changing nature of the human resources for health arena and the wide variety of stakeholders involved. The second Global Forum on Human Resources for Health was held in 2010 in Bangkok, Thailand with the outcome statement from that meeting emphasising the multifaceted and complex nature of health workforce development.

In response to the need for enhanced coordination between various stakeholders in the area of health workforce at a country level, the document “Human Resources for Health: Good Practices for Country Coordination and Facilitation (CCF)” drafted on the basis of the Kampala Declaration and Agenda for Global Action, describes the rationale for a coordination mechanism and proposes a set of good practices for effective coordination of the efforts of local alliances working to improve the HRH situation (GHWA, WHO 2009).

The “health workforce” building block is made up of a number of interrelated components or action fields as described in the “Health Action Framework” (Capacity Plus, WHO 2010): human resource management systems, leadership, partnership, finance, education and policy.

The WHO Health Action Framework demonstrates the interrelationship of the action fields while also identifying a four phase process to follow to ensure a comprehensive and sustainable approach to HRH (Capacity Plus, WHO 2010). *Figure 5.*

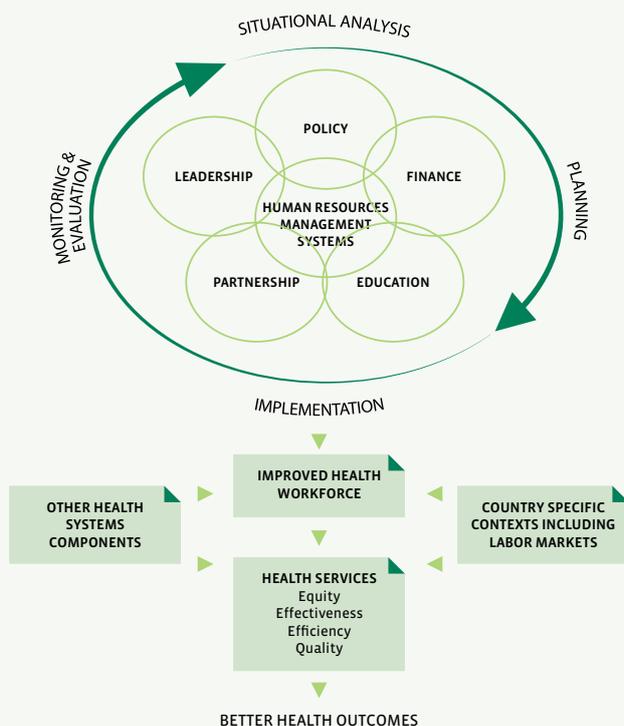


Figure 5. Capacity Plus, WHO (2010), Health Action Framework (HAF)

It is clear in this framework that education forms one of an interrelated set of action fields within the health workforce building block, while this building block interrelates with five other building blocks which make up a framework for sustainable health systems all must be considered together for a sustainable approach to be maintained. Pharmacy education must not be considered in isolation if it is to make an impact on sustainable health system development.

When considering health system interventions, including those involving pharmacy education, anticipating how an intervention might flow through, react with, and impinge on these “building blocks” is crucial and forms the opportunity to apply systems thinking in a constructive way. In 2009 WHO produced a report on systems thinking and how it can be applied to health systems as a tool for those whose role it is to implement sustainable change (WHO 2009).

**Next Steps in the Pacific**

The United Nations Population Fund (UNFPA) – University of Canberra (UC) research team has used these documents, principles and recommendations to develop a plan that has engaged governments, pharmacists, doctors, nurses, pharmacy assistants and other pharmacy support workforce cadres to seek a combined solution to identified EMSM competency deficiencies in Pacific Island Countries (PICs).

This approach has:  
*Identified culturally sensitive principles to consider when developing training packages (Brown 2010).*

*Reviewed currently available information on EMSM competencies and training in PICS (Brown 2009).*

*Prepared competency maps that relate to the local role of cadres in EMSM (Brown 2011).*

*Reviewed locally available materials used in EMSM training in PICs (Brown, Zinck 2010a).*

*Developed training packages addressing EMSM competencies suitable for Level 1(country specific five day workshop) and Level 2 (blended learning with in-country delivery of Certificate III/IV in Hospital/Health Services Pharmacy Support) (Brown, Zinck 2010b).*

Future aspects of this project require evidence to support the effectiveness of these training packages, the transfer of these training packages, together with the learning and teaching principles that surround them to tertiary academic, vocational education and training institutions of the region to ensure sustainable pharmacy support workforce strengthening for the future.

In the broader context of health systems strengthening there is a need to apply systems thinking and a collaborative approach to engage all the stake holders within the health system of each country. Education is only one aspect of

system strengthening and consideration needs to be given to the full set of six building blocks which make up the health systems framework within individual countries of the region if the desired MDGs are to be achieved.

#### AUTHOR'S INFORMATION

**Andrew Brown, B.Pharm**

GCHE, CertIV Training & Assessment, AACP, MPS

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# PHARMACEUTICAL SYSTEMS DEVELOPMENT IN SUB-SAHARAN AFRICA

## *A CALL TO ACTION*

*Hiba Yassin Abuturkey, Edith Andrews,  
R. Shija, Helen Tata, Tana Wuliji*

Access to health and therefore medicines is a human right. Achieving Millennium Development Goals (MDGs) 4, 5 and 6 relies on the availability and rational use of medicines.<sup>1</sup> There are significant efforts worldwide to strengthen pharmaceutical systems to provide equitable access, availability, affordability and rational use of medicines; however in order for these developments to be sustainable, there is a need to ensure sufficient, appropriately deployed and skilled pharmaceutical human resources (HR).

There is a pressing need for appropriate pharmaceutical HR planning to develop local strategies to address workforce challenges. This article summarizes these challenges and proposes key actions.

### **Mismatched investments and resource constraints**

In many countries, the substantial growth of investments in medicines supplies have not been supported by corresponding growth in investments in pharmaceutical systems and pharmaceutical HR to manage the increasing complexity and volume of medicines. Between 2005 and 2007 alone, a 50% increase in pharmaceuticals expenditure was observed in Sudan, with an increase in public sector spending from 39 million USD to 61 million USD and private sector spending from 153 million USD in 2005 to 268 million USD in 2007.<sup>2</sup> In Tanzania, the budget for medicines has been increasing year on year, without increased investments in the training, recruitment and retention of pharmaceutical workforce.

The all too common scenario of overwhelmed and weak pharmaceutical systems in low and middle income countries unable to cope with such trends is a significant threat to the sustainability of efforts to improve access to medicines. Whilst funding mechanisms exist to support the procurement of medicines, there is limited funding for the development of pharmaceutical systems and HR.

For example, in Cameroon, funds received from the Global Fund to Fight Aids, Tuberculosis and Malaria (GFTATM) increased over five fold between 2004 and 2010. However the number of pharmacists in the public sector to manage these pharmaceuticals remained critically low with less than 0.004 pharmacists per 10,000 population.<sup>8</sup>

An encouraging trend can be seen in Tanzania, where the GFATM will provide support for health systems strengthening through USD 176 million over 5 years. More than half of the funds will be targeted to human resources for health (HRH) development, including USD 57,843,731 for improvement in the production of health workers and USD 44,335,583 for enhancing workforce recruitment and retention to scale up services. It is hoped this funding will also support pharmaceutical training institutions and HR development.<sup>3</sup>

A 2006 study in Tanzania mapped the financial flows from government and development partners for the procurement and supply chain management (PSM) of medicines. Overall Government funding was over USD 166.6 Million (53%), followed by Global Fund amount USD 100.6 Million (32%) and development partners contributed over USD 46.2 Million (15%). However, there is a significant shortage of pharmaceutical human resources to manage these investments in PSM.<sup>4</sup> The density of Pharmacists varies tremendously across regions, eg 0.01- 1.37 per 10,000 population, and between 0.02-0.56 for technicians.<sup>5</sup>

Resource constraints have impacted the ability of the public sector and other employers to provide adequate salaries, improve recruitment and retention (especially in rural areas) and institute performance management systems to build the capacity of pharmaceutical human resources to manage the growth of pharmaceutical systems. For example, there is a current embargo on public sector employment in Ghana resulting in a situation of unemployed pharmacy graduates.

In Sudan, the differences in public and private sector salaries has led to the attrition of pharmacists from the public to private sectors and even abroad (Sudan Pharmaceutical HR Assessment Report 2009). However, public sector salaries are difficult to change as they are set by the Ministry of Labour and Ministry of Finance although other types of incentives should be provided, especially in rural areas, such as CPD training, housing especially in rural areas, medical insurance coverage. Another incentive that is now implemented by

Ministry of Health is reducing the minimum number of years of experience years required by the pharmacist to obtain a scholarship for postgraduate studies. Pharmacists who serve in a rural area require less years of experience in order to qualify for the scholarship. The 2010 Sudan strategic pharmaceutical HR framework addresses this issue. It states that a clear recruitment policy and incentives package should be set to attract and retain HR, especially in rural areas.

The lack of trained pharmaceutical HR impacts the capacity for pharmaceutical manufacturing as well as the supply and distribution of medicines. In low and middle income countries investment in local manufacture of medicines is almost non-existent because of the high initial capital requirements and the lack of trained HR for manufacture of good quality medicines. Only a few countries in the African Region have obtained WHO prequalification for the medicines for priority diseases and therefore can mobilise funds from Global fund resources to support the local manufacturing industry. In Ghana, the lack of trained pharmaceutical personnel to improve access to and rational use of medicines in rural areas where much of the population reside is a major concern.

The pharmaceutical HR study in Tanzania found that in many instances, doctors, laboratory technicians, and other clinical workers such as clinical officers, counselors, nurses and midwives were also providing pharmaceutical services in the sampled facilities. This situation has arisen in part due to the lack of pharmaceutical human resources, but may negatively impact of pharmaceutical services.

Various strategies are in place to improve the recruitment and retention of health workers in Tanzania, including an emergency hiring initiative supported by the Benjamin Mkapa AIDS Foundation. Newly recruited health workers used to face long delays in salaries after being deployed, funds are now disbursed to councils to ensure the prompt payment of salaries. Two year renewable contracts are also offered to retired health workers if they are willing to continue providing services.



### Pre-service education and sustainable development of needs-based pharmaceutical human resources

The lack of academic institutions, academic faculty and needs and competency based approaches to train the required pharmacists, technicians and assistants has been widely recognized, particularly in sub-Saharan Africa.<sup>6,7</sup> This affects the ability to sustainably develop pharmaceutical human resources to meet country needs.

Training institutions in Tanzania face many challenges including: lack of lecturers for various pharmaceutical disciplines, lack of funds, inadequate classrooms, laboratories and hostel facilities, inadequate re-training of tutors and teaching aids.<sup>5</sup>

In Ghana, pre-service education does not adequately meet current needs and there is a disconnect between education and practice. There are a number of new developments in pharmacy education with the opening of two new schools of pharmacy (one public and one private) over the past three years, WHO is also currently supporting curriculum review and revision.

Whilst there is no shortage of training institutions in Sudan, there are a number of faculties of pharmacy that have not updated their curricula for decades. If pre-service education can appropriately empower pharmacists with the required skills to perform, then investments in workforce development will be more effective and sustainable. The National Ministry of Health of Sudan used to run a three month internship program to support the development of skills to bridge the gap between education and practice, however this program was reduced to 5 days due to the increased number of graduates and significant decline in funding. The Sudan Medical Council (SMC) is now establishing a system of pre-service accreditation which will require pharmacy education providers to meet specific criteria, including curriculum development. The 2010 Sudan Pharmaceutical HR strategic framework outlines a clear process for the Ministry of Higher Education, SMC and NMoH joint accreditation organ to assess and evaluate curriculum outcomes of training institutions.

### Continuing education

There is a need to strengthen continuing education (CE) and continuing professional development (CPD) systems given the trend of ad-hoc, unsustainable and poorly coordinated training programs that in many instances, have not adequately built institutional capacity or national systems for ongoing competency development. Many countries in sub-Saharan Africa do not have structured systems for CE and CPD (eg – Tanzania, Ghana).

The Sudanese Pharmacist Union established the first pharmacist CPD program in 2004. Unfortunately, this program was suspended due to financial and administrative problems. In 2009, a national CPD program plan was submitted to the NMoH CPD Centre for approval and implementation.

There is considerable investment in African countries on capacity building in medicines supply management but the impact has not yet been evaluated. These trainings are ad-hoc involving many partners with their own specific training modules. Each partner involved may only be interested in a particular category of medicines. Thus in a given country, there could be as many as 50 capacity building workshops a year involving diverse partners and for different categories of products such as medicines for HIV/AIDS, tuberculosis, malaria etc.

Apart from country specific trainings, there are also international supply management workshops organised for those working in medicines supply chain system. Participation in these workshops could be costly, making it possible for only a limited category of participants such as policy makers who handle the budget or those close to the budget office, and may not include the most relevant staff.

### Need for national pharmaceutical human resources planning

Pharmaceutical human resources development is often missing from human resources for health plans due to limited or a lack of HR information, input or representation in decision making forums on health workforce. For example, there are weaknesses in health workforce data management at the central and facility levels in Tanzania. The lack of updated data for health workforce creates a barrier to appropriate planning for recruitment, expansion of schools, and distribution of personnel. Prior to the pharmaceutical HR assessment in 2009, there were significant gaps in information in Tanzania on pharmaceutical HR. The MOHSW is in the process of developing a human resource for health information system for all cadres. The system has been rolled out to seven regions and seven referral hospitals. The Pharmacy Council also has developed a database for pharmaceutical staff. However it should consider validating the database by doing physical follow up of pharmaceutical personnel in collaboration with District and Regional Pharmacists and also from time to time checking the information in the HRH information system.

The HRH strategic plan in Sudan used data from mapping exercises conducted in 2006, however this did not include data on pharmaceutical HR and thus it was missed out from the plan. Now, the NMoH has started to collect data in order to include pharmacists in the next strategic plan for the development of HRH. The newly established Pharmacy Council in Sudan will be responsible for maintaining data on pharmaceutical HR, regulate the pharmacy practice, and support CPD should policies be introduced for license renewal.

There is also a weak link between MOH and Ministries of Education or Higher Education, which leads to poor coordination on the number of pharmaceutical HR to be trained, for example in Sudan there is no dialogue between the ministries on the workforce supply needs. In Ghana there is also a lack of private sector involvement in policy implementation and monitoring.

Well developed, implemented and monitored pharmaceutical human resources plans can address the issues of sustainability and can define solutions to priority challenges. In collaboration with the Ministries of Health and with the support of WHO and the European Commission, the authors have collaborated since 2009 to undertake comprehensive national pharmaceutical human resources assessments and support Ministries of Health in strategic planning in Ghana, Nigeria, Sudan and Tanzania.

### Call for action:

There is a need for greater investments in pharmaceutical HR to strengthen pharmaceutical systems, particularly to ensure needs-based pharmacy education development, scale up the training of pharmaceutical HR to meet needs, develop the labour market for pharmaceutical HR to build pharmaceutical sector capacity, and deploy workforce in underserved and rural areas. Greater measures are needed to improve the retention of staff, particularly in underserved areas.

All national stakeholders have an important role to play:

#### Private sector:

- Invest in the establishment of academic institutions to develop pharmaceutical HR (also public-private partnerships)
- Invest in the pharmaceutical sector labour market to build pharmaceutical systems capacity

#### Ministries of Health:

- Develop recruitment and retention schemes to improve the distribution of pharmaceutical HR in underserved areas
- Build the capacity of pharmaceutical sector staff to assess workforce needs, plan and manage pharmaceutical HR development strategies
- Integrate pharmaceutical HR data in HR information systems and use this as a basis for integrated HRH planning

#### Academic institutions

- Identify opportunities within health science schools to establish pharmaceutical HR training programs by sharing existing infrastructure such as lecture theatres, library facilities and labs
- Review curriculum to be needs-based
- Introduce quality assurance systems and improvement processes
- Develop continuing education programs based on assessed needs
- Develop pharmaceutical HR research studies to provide a local evidence base to inform HR planning

#### Employers:

- Develop clear job descriptions and career pathways to improve performance and retention

#### Professional bodies:

- Support pharmaceutical HR assessments, planning and implementation of strategies
- Support the development of CE and CPD systems
- Provide advocacy for pharmaceutical HR planning and development

#### Pharmaceutical personnel:

- Advocate for the required investments in pharmaceutical HR to strengthen pharmaceutical systems

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### AUTHORS; INFORMATION

#### Hiba Yassin Abuturkey

*Human Resources Development Department, Directorate General of Pharmacy (DGoP), NMoH, Sudan*

#### Edith Andrews

*Country Adviser Essential Medicines, WHO country office, Ghana*

#### R. Shija

*National Program Officer, Essential Medicines, WHO country office, Tanzania*

#### Helen Tata

*Technical Officer, Essential Medicines and Pharmaceutical Policies, WHO, Geneva*

#### Tana Wuliji

*Pharmaceutical Workforce and Systems consultant*

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# THE NEW NEXT GENERATION

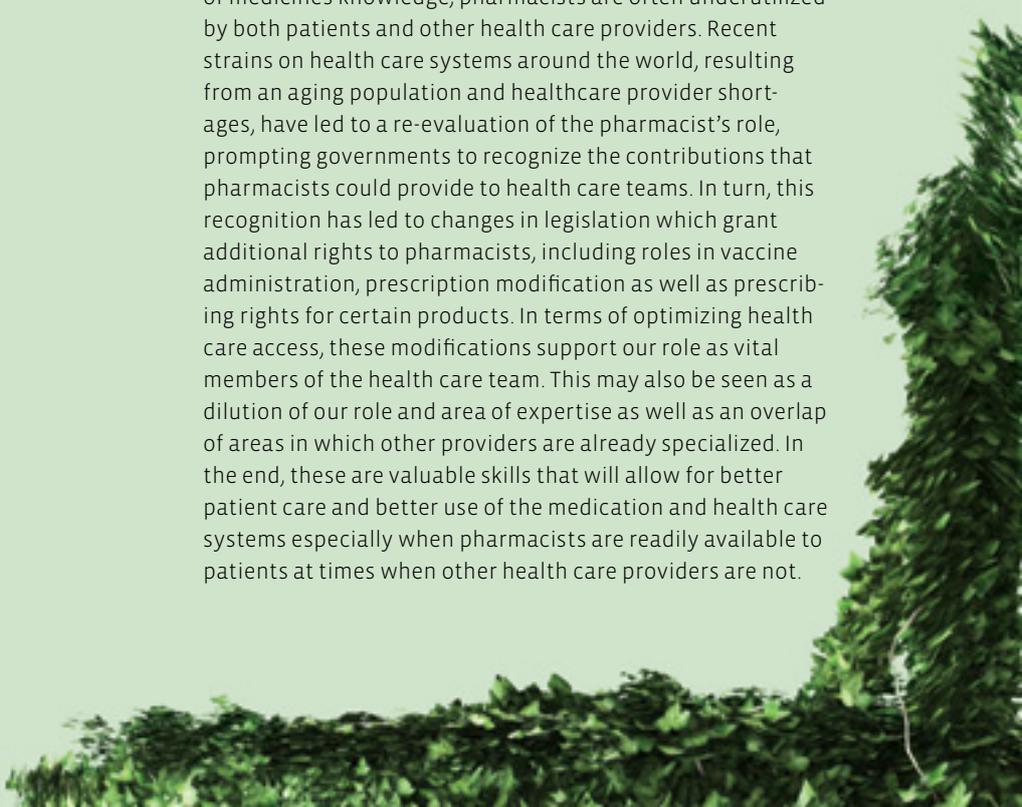
*Jennifer Attwood, Nadia Pawlosky*

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We are fourth year pharmacy students a few months away from graduation at the University of Manitoba Faculty of Pharmacy in Winnipeg, Canada. As part of a seven week electives program, we served as interns with the International Pharmaceutical Federation (FIP) in The Hague. Our futures in the field of pharmacy will differ with one of us heading off to do a hospital residency and the other set for community practice, however we share a common vision for the future of the profession – we are the NEW next generation of pharmacists.

Throughout the course of our education, our professors have consistently stressed that pharmacy is undergoing a period of dramatic change and have encouraged us, as students and future practitioners, to be advocates for change. The ability to adapt and take advantage of opportunities to expand our role is essential for the sustainability of pharmacy. Gradually, pharmacy technicians have taken on many of the dispensing roles often associated with pharmacists, leaving pharmacists free to provide patient-centered care revolving around optimization of medicine therapy. For pharmacists to remain relevant within the health care field, they must embrace this new role. The health care needs of our patient population are changing and with increasing emphasis on prevention and monitoring, the pharmacist plays a key role now and in the years to come.

Society, especially those individuals who have not had much interaction with pharmacists, sometimes views pharmacists as glorified pill counters. As such, despite possessing a wealth of medicines knowledge, pharmacists are often underutilized by both patients and other health care providers. Recent strains on health care systems around the world, resulting from an aging population and healthcare provider shortages, have led to a re-evaluation of the pharmacist's role, prompting governments to recognize the contributions that pharmacists could provide to health care teams. In turn, this recognition has led to changes in legislation which grant additional rights to pharmacists, including roles in vaccine administration, prescription modification as well as prescribing rights for certain products. In terms of optimizing health care access, these modifications support our role as vital members of the health care team. This may also be seen as a dilution of our role and area of expertise as well as an overlap of areas in which other providers are already specialized. In the end, these are valuable skills that will allow for better patient care and better use of the medication and health care systems especially when pharmacists are readily available to patients at times when other health care providers are not.



Pharmacists are often cited as the “medicines experts” and after completion of an extensive five to six year program, pharmacists certainly possess a wealth of medication information. As new medicines are frequently being introduced to the market and new developments within the field of health occur almost daily, if pharmacists wish to remain the so-called medicines experts, they must dedicate themselves to lifelong learning. We’ve often been overwhelmed by the amount of information presented during lectures at school and felt as if it was near impossible to remember it all. Fortunately, there are ample references available for consultation, at least in practice, if not during exams. Knowing how to quickly access relevant information is another important skill that will enable pharmacists to provide correct information to patients and other health care workers. Based on our experience, journal clubs seem to have become a staple of hospital practice and although time is perhaps too limited for these formal presentations in the community setting, journal clubs provide an excellent opportunity to keep up to date on some of the major developments in medicine. The thought of committing to a life of learning seems a bit daunting at times, however journal clubs, continuing education seminars and conferences held in exciting locations (the FIP’s next Congress in Hyderabad, for example) make these responsibilities more appealing.

Knowledge alone won’t make pharmacists a valuable resource. The value of this expertise lies in the accessibility of the pharmacist to both patients and other health care providers. Campaigns promoting pharmacists as a resource for medicine information serve to increase awareness among patients and health care providers making them more likely to utilize pharmacy services. Community pharmacies are often conveniently located and as a result, the pharmacist is the easiest health care provider for most patients to reach. The move towards increased dispensing responsibilities for pharmacy technicians will only serve to make pharmacists more accessible to the public by allowing them to spend more time answering questions and providing recommendations.

Communication skills are critical for pharmacists in order to clearly convey information to both patients and other health care workers. In the community pharmacy setting, pharmacists spend time answering questions, assessing patients and providing recommendations. Pharmacists must be able to provide this information in patient-friendly language to ensure that their directions and questions are understood. Practical rotations in workplace settings as well as Objective Structured Clinical Examinations (OSCE) are useful in helping students develop these skills. The OSCE is a standardized test of the candidate’s ability to effectively communicate clinical knowledge. These exams are designed to ensure competency upon entrance to the profession and uphold a national pharmacy standard of practice.

Our experience in the actual work field has been fairly limited to date, consisting of community pharmacy work throughout the summer as well as rotations in both hospital and community settings. These experiences were rather intimidating in

first year pharmacy when we had little medicine knowledge or confidence in our abilities to provide information to patients. Through these experiences, we’ve encountered various obstacles that challenge our communication skills, from language barriers to elderly patients with hearing impairments to emotionally-charged situations. Throughout the course of the program, our ability to overcome these obstacles has improved remarkably and while it is still a little daunting to consider that in a few short months we will be practicing pharmacists, our training has provided us with the required knowledge and skills, as well as the confidence to succeed.

With confidence comes assertiveness and when dealing with other health care professionals, it seems crucial to assert oneself as a medicines expert in order to gain the respect of fellow health care team members. The addition of a pharmacist to a health care team allows the other members to focus on their respective specialties as well as for a collaborative effort that ensures both learning opportunities for members of the team and better patient care. In the hospital setting, pharmacists are often called upon to provide recommendations and as 4<sup>th</sup> year pharmacy students, we were often asked for our input as well. It is a bit nerve-wracking to be asked a question on the spot with a whole team of professionals looking on, but it’s important to provide a clear answer in an assertive tone. Of course, equally important is providing correct information and knowing when and where to look up information if in doubt. Pharmacists have a promising future as members of interdisciplinary health care teams and in order to secure their role within this team, it is crucial that pharmacists communicate with other professionals with as much clarity and confidence as when they are dealing with patients. Pharmacists have a voice and a role to play on these teams and if pharmacists want to move forward towards a future in patient-centered care, they must assert themselves.

Change occurs frequently and rapidly within pharmacy and healthcare. Not only are new medicines always on the way, but the scope of practice is actively changing as well. Pharmacists need to be adaptable. We’re lucky that our pharmacy education has been geared towards preparing us for this change. There is often some reluctance to accept change and while that’s understandable, pharmacists need to accept that change must occur within the profession if it is to move forward.

Each year Gallup surveys Americans to determine how the public views the honesty, ethics, and overall trustworthiness of various professions. Pharmacists consistently rank among the top professionals for honesty and ethics.<sup>1,2</sup> While pharmacy has undergone dramatic changes since Gallup began polling Americans about the profession three decades ago, with pharmacists stepping away from the counting tray and focusing more on direct patient care, the public’s trust in pharmacists has remained solid. While it should be taken with a grain of salt, it’s also interesting to note pharmacy’s position with respect to other healthcare professionals. Over the past few years, pharmacists have ranked below nurses, but ahead of physicians. While it is only one factor, this

seems to correlate with the amount of time each respective provider typically spends in direct contact with their patient. Pharmacists are respected for their knowledge, but are also known as the most accessible healthcare provider. Take the 'first-name-basis' relationship many community pharmacists have with their patients; this relationship of trust and respect between the patient and pharmacist is not built overnight or perhaps even through one interaction or counselling session. It is through providing a consistent level of care in doing what is simply our job or responsibility as a pharmacist (our "due diligence" as one of our professors would say), that this relationship has been fostered.

In this same vein, relationships with other healthcare professionals are not established overnight. In the interactions we've had with pharmacists who are well-utilized, valued and well-respected by other members of the healthcare team, it seems that the best way to build these types of working relationships is in the same way we've done so with our patients. That is, through exemplifying the traits discussed above in our day-to-day operations, by having the knowledge base to answer difficult medicine-related questions (or if not, willingly looking them up) and by making recommendations in a respectful, yet assertive way, but not by simply asking for or demanding such respect.

During our hospital pharmacy rotations we've had the opportunity to participate on rounds with the healthcare team, which includes medical students, nursing students and other allied health professional students. We fully support and value interprofessional education and training; this sort of exposure helps to create an awareness of each other's respective roles that is necessary to build a mutually beneficial relationship.

In considering our plans for the year after graduation, we considered the merits of both hospital and community pharmacy and realised that what we enjoy most about each is the interaction with others. Based on our experience working in community pharmacy, we would say the pharmacist typically spends more time with the patient and has less interaction with other health care professionals (usually over the telephone), whereas hospital pharmacy appears to be the opposite. As a result of working more closely with other healthcare professionals in the hospital or clinic setting, the

nature of the pharmacist's relationship with these individuals is inherently closer. As an aside, this also identifies the lack of visibility of the pharmacist in the hospital setting. Increased interaction with the patient would serve not only to better educate the patient on their medicine therapy (which in turn would serve to increase compliance), but also to enhance public awareness of the pharmacist's role.

The recent, actual and future changes in the pharmacist's scope of practice seem to open the door for closer inter-professional relationships in the community setting. New roles of the pharmacist, such as prescribing, prescription adaptation and the administration of vaccines will ensure the sustainability of the profession while also helping to relieve the pressure on an overburdened healthcare system and better serving the patient. It's difficult to predict the long-term future of the profession but we hope that pharmacy will continue to adapt to best serve the needs of our patients and health care system. Pharmacy is already on a path towards change; by providing our patients with a level of care that speaks for itself and embracing our role on the health care team, we will help to ensure that change continues in a positive direction. We're graduating at a very exciting time for the profession and are looking forward to contributing towards the bright future we envision for pharmacy.

#### AUTHORS' INFORMATION

##### **Jennifer Atwood, Nadia Pawlosky**

*At the time of writing the article, Jennifer Atwood and Nadia Pawlosky were completing an internship at FIP Headquarters in The Hague, The Netherlands. Since then, both have graduated from the University of Manitoba Faculty of Pharmacy Class of 2011.*

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# THE FIP YOUNG PHARMACISTS GROUP

*SUPPORTING SUSTAINABILITY*

*FIP Young Pharmacists Group*

The transition from being a full-time student to new practitioner is marked by many challenges. Where once we had the time not only to join professional organizations, but also to volunteer to coordinate projects and hold leadership positions, joining the workforce has made even keeping up-to-date with our memberships a difficult feat in and of itself! As students, we enjoyed the luxury of interning in a variety of practice settings – now, the specter of student loan repayment and keeping up with the cost of living looms over our heads and the flexibility we once enjoyed as students appears to have almost been a dream! And how about the natural progression of life and our relationships that can include getting married, starting families, and having kids...all of these exciting new changes hit us all at once during this transition period – it is no wonder that membership and activism in professional organizations typically take a backseat following graduation!

FIP's Young Pharmacists Group, a network of new practitioners 5 years out of their first pharmacy degrees or under 35 years of age, was created to address these many challenges that new graduates face as they leave school to enter the workforce. We recognize that young pharmacists require a special forum that both accommodates their limited time, as well as, caters to their special needs as up and coming professionals. And at the same time, while we want to stay up-to-speed with the latest in pharmacy news and developments, we also enjoy having a good time with friends and colleagues too.

YPG aims to keep new grads committed to their profession by offering their members opportunities not only to connect to their international colleagues, but also to share and showcase their professional accomplishments. YPG members are able to apply for various grants and awards – sponsorships offered by FIP and YPG – to attend the annual FIP Congress, where they can present their research posters, network with established professionals within the FIP Sections, and also keep things light by attending various social functions with friends. On the members-only pages of the FIP website, a discussion forum offers members a chance to debate various topics, as well as, offer their input year-round to the YPG Steering Committee. In this way, our members are directly connected to their elected leadership and always have a voice in the way the network operates.

More than anything, YPG is a gateway to FIP and its Sections and Special Interest Groups. If you are wondering how to take your career to the next level, how to move forward professionally, YPG can help you get there! The 71<sup>st</sup> FIP Congress will be held in Hyderabad, India from September 3-8, 2011 and the theme of this year's event is "Compromising Safety and Quality: A Risky Path." The YPG Workshop is focused on generic medicines and the patient experience – what the pharmacist's role is in ensuring safe and effective medicines use. YPG will also have several joint sessions with the following FIP sections: Industrial Pharmacy, Community Pharmacy, and Academic Pharmacy. With a variety of social events to



Member of the Young Pharmacists Group

attend, there will be plenty of opportunities to meet new friends, as well as, catch up with the old ones.

Attending the FIP Congress, getting active within the YPG network, taking on leadership positions within national and international pharmacy organizations – these are all very good examples of how we, as young pharmacists and new practitioners, can contribute to, as well as, support the building of a sustainable professional pharmacy workforce. Automation and the relegation of medication preparation (i.e. pill counting, label making, etc.) to qualified support staff, such as pharmacy technicians, have already ushered in an era of increased job freedom and professional opportunity for pharmacists. We no longer have to spend the majority of our time behind the counter, but can focus instead on clinical activities, such as counseling and medication therapy management – things that we have longed to do for so long, but have never had the time for. With pharmacist roles continuing to expand and an ever-changing healthcare environment challenging us to think outside the box, there can be no doubt that young pharmacists stand at the forefront of this exciting movement.

YPG is helping to build a sustainable workforce by equipping its members with the essential tools they need to become effective leaders and advocates for their profession. By creating an international network of new practitioners who work together to share resources, collaborate on cutting-edge research projects, and voice their opinions on worldwide health issues, YPG is doing its part to ensure that our members are empowered and possess the skills/knowledge that they need to succeed. By encouraging our members to join the FIP Sections and SIGs, we are hoping to smooth their transition from students to practitioners and thereby retain them as “actives,” rather than lose them in flux. One of the great things about YPG is that it brings together a diverse and ambitious group of individuals, all of whom are committed to our profession and desire to see pharmacy succeed and persist for years to come.

On the YPG Steering Committee, we strongly believe that the future of pharmacy resides in our hands today and that being a new practitioner or young pharmacist is not an excuse for inaction or indifference. Quite to the contrary, YPG was created with the following idea in mind: despite transition and change, you can still stay involved.

YPG understands your struggles as a new practitioner and as a network within FIP, we strive through a variety of means, to help you reach your professional goals, while enjoying every moment of that journey! We look forward to meeting you and hearing how we can better serve your needs as young pharmacists, as colleagues, and as friends. See you in Hyderabad!

#### AUTHORS' INFORMATION

**The FIP Young Pharmacists Group,** brings together young members of FIP (those under 35 and/or who have graduated in the last five years) and encourages them to act as a critical and innovative force. It acts as a member-to-member gateway to FIP activities, creating opportunities by exchange of information.



# The FIP Centennial

Improving health  
through responsible  
medicines use

**3 - 8 OCTOBER 2012**  
AMSTERDAM, THE NETHERLANDS

[www.fip.org/centennial](http://www.fip.org/centennial)

In 2012, the International Pharmaceutical Federation (FIP) will celebrate its 100 year anniversary and as such will host the FIP Centennial Congress, together with the Royal Dutch Pharmacists Association (KNMP).

The Centennial will take place from 3-8 October, 2012 in Amsterdam, The Netherlands and will welcome thousands of pharmacists from around the world on a global platform of learning and networking.

The 2012 edition of the annual FIP Congress under the theme of 'Improving Health through responsible medicines use' will be a turning point for the profession on a global level. In addition to symposia, poster presentations, an extensive exhibition and a vibrant social programme, a high level Ministerial Summit and Stakeholder Roundtables will set the stage for the future.

The Centennial will offer all participants a venue for enriching their career while at the same time participating in events and decisions that will steer the future of pharmacy and healthcare around the world: The future of Pharmacy, be part of the creation.

# THE AMSTERDAM DECLARATION

CREATING A SUSTAINABLE FUTURE AT THE FIP CENTENNIAL CONGRESS

Warren Meek

In the streets of Verona another brawl breaks out between the servants of the feuding noble families of Capulet and Montague...but then...the feast begins. A melancholy Romeo sees Juliet from a distance and instantly falls in love with her; he forgets about Rosaline completely. Soon, Romeo speaks to Juliet, and the two experience a profound attraction. They kiss, not even knowing each other's names. When he finds out from Juliet's nurse that she is the daughter of Capulet – his family's enemy – he becomes distraught. When Juliet learns that the young man she has just kissed is the son of Montague, she grows equally upset. As Mercutio and Benvolio leave the Capulet estate, Romeo leaps over the orchard wall into the garden, unable to leave Juliet behind. From his hiding place, he sees Juliet in a window above the orchard and Romeo quietly professes his love for her and compares her to various beautiful elements in the world. He remains hidden while Juliet laments over her predicament. Once Romeo is certain that Juliet is as distraught as he is, he makes his presence known. At first, Juliet is startled and slightly angry to know that he invaded her private lamentations. Juliet demands to know why he is there and how he got there. Romeo tells her that the power of his love helped him climb the high walls, and Juliet's demeanor softens. Juliet declares her love to Romeo.

*O Romeo, Romeo! wherefore art thou Romeo?  
Deny thy father and refuse thy name;  
Or, if thou wilt not, be but sworn my love,  
And I'll no longer be a Capulet.  
'Tis but thy name that is my enemy;  
Thou art thyself, though not a Montague.  
What's Montague? it is nor hand, nor foot,  
Nor arm, nor face, nor any other part  
Belonging to a man. O, be some other name!  
What's in a name? that which we call a rose  
By any other name would smell as sweet;  
So Romeo would, were he not Romeo call'd,  
Retain that dear perfection which he owes  
Without that title. Romeo, doff thy name,  
And for that name which is no part of thee  
Take all myself.*

And so was Juliet's declaration: declaring her profound love for Romeo, in spite of the family feud, between the Montagues and the Capulets.

We can imagine that if the destiny of Romeo and Juliet was different, some of their children may have made it from Verona to Madrid where they would experience a different type of declaration: the "Declaration on the Vital Importance of Toys" – really – this is true! This declaration claims among its ten points, that:

- Children have played with toys throughout history and in all cultures. Toys promote children's well-being,
- Toys support the right to play in childhood which is essential to healthy child development,
- Toys are vital tools that help foster the mental, physical, emotional and social development of boys and girls,
- Toys support the right to education through encouraging play and learning.

I have shared these two declarations with you to set the stage for a potential declaration that involves pharmacists represented by the member organization of the Interna-



tional Pharmaceutical Federation – FIP. Pharmacists and pharmaceutical scientists have an obligation to care, and an obligation to help society achieve better health through the products and services offered by our profession. Before I comment on the importance of any such declaration, we need to understand the roots of a declaration. What is a declaration and why have so many health, policy and political organizations and congresses made special declarations?

Let's start with a definition: A declaration is generally what we can consider to be a formal or explicit statement, e.g., they issued a declaration at the close of the talks. While not significantly different from a statement, one may see more announcements or proclamations of declarations.

Why make a declaration? The authors of any declaration have a belief or an opinion that they wish to share with their public with a goal for an improvement from the current situation. Other than a “declaration of war”, most declarations appear to offer some hope for a better future. There also appears to be an intent of accountability by the body making the declaration.

From history, we know that “pharmacy” has continued to change through the centuries. If we go back to Greek mythology we find in the Greek legend, Asclepius, the god of the healing art, delegated to Hygieia the duty of compounding his remedies. She was his apothecary or pharmacist. The physician-priests of Egypt were divided into two classes:

those who visited the sick and those who remained in the temple and prepared remedies for the patients. In the 10<sup>th</sup> century a.d. we see the works of Avicenna and his “Canon of Medicine”.

From Wikipedia – the Free Encyclopedia – the word pharmacy is derived from its root word pharma which was a term used since the 15<sup>th</sup>–17<sup>th</sup> centuries. In addition to pharma responsibilities, the pharma offered general medical advice and a range of services that are now performed solely by other specialist practitioners, such as surgery and midwifery. The pharma (as it was referred to) often operated through a retail shop which, in addition to ingredients for medicines, sold tobacco and patent medicines. The pharmas also used many other herbs not listed.

In current history, we are witnessing an explosion in the number and quality of scientific products and thirst for knowledge about how medicines work. As a result, pharmacists are migrating from purveyors of product to be more integral within the health care system – moving from the dispensing of medication to the delivery of education and knowledge and clinical service.

The future will happen in one form or another, with or without a sustained pharmacy profession. As pharmacists and scientists, are we willing to accept just any future, or do we not aspire to a preferred future – one where we can truly be participants, and not just spectators? Any declaration that may be forthcoming from FIP may reflect on the history of

Pharmacy, but must sincerely declare to be interested in a preferred future of the profession for the benefit of society through a strong and integrated professional and scientific body. Pharmacists and pharmaceutical scientists must meet and exceed the extreme current and future challenges affecting Society. What are some of those current and future challenges?

- The growing prevalence of poverty, aging of populations and health distribution in urban/rural developments is affected by unequally distributed patterns in world population and economy.
- Leading causes of disease are a mix of communicable and non-communicable disease with large variation in high-income, low-income, and middle-income countries.
- Cost, accessibility and the ability to provide high quality healthcare with the best possible outcomes are growing worldwide concerns, compounded by escalating health-care worker shortages.
- Two billion people have no regular access to essential medicines and it is estimated that 90% of the world's pharmaceuticals are consumed by 15% of its population. It is estimated that by expanding access to existing interventions, mostly essential medicines, over 10.5 million lives a year could be saved by 2015.
- Less than 5 cents per every healthcare dollar is spent on health promotion and prevention initiatives.
- Education and training of pharmacists and pharmaceutical scientists vary around the world, resulting in an unavailability or inadequate distribution of trained and competent pharmacists to meet population needs.
- Questions of efficacy, safety and counterfeiting of pharmaceuticals are more prominent and pose a challenge to public confidence.
- More and closer collaboration is required within and among the various global health professions.

Recently, I had the pleasure of volunteering for the Canada Winter Games 2011 in Halifax Canada. One of the themes established early on for all volunteers and all athletes was "What will you bring to the Games?" The answers were as broad as the range of volunteers and athletes, cultures and backgrounds, age and experience. Some brought tangible things, others brought spiritual things. Some brought ideas, others brought hot chocolate (it can be cold in Halifax in February!). Those games have now come and gone. The issues of post-games sustainability relate primarily to infrastructure and volunteerism.

Sustainability for our profession is more than infrastructure and volunteerism. Sustainability for our profession requires a dedication to eliminate counterfeit medicines, proper remuneration for products and services, discovery of novel medicines, a will to work collaboratively with all health providers, ethics, a continual embrace of new technology, and knowledge transfer.

Does Society benefit from the profession of Pharmacy? Yes. Unequivocally. From the ancient times to today. And with the continuing support of pharmacists, pharmaceutical scientists, industry, governments and pharmacist Associations – well into the future.

How will Society benefit from a sustained Pharmacy profession? The benefits derive everywhere from the local village pharmacy and pharmacist to the executive offices of the largest government organizations, from professionals who practice pharmaceutical care, who source life-saving medications for their patients, who speak at the local senior citizen complex, who identify counterfeit medicines in the medicine-cabinets of patients, who spend countless hours in scientific and practice research, looking for a better way to practice, looking for a better medicine, looking for a new standard of practice.

2012 is the Centennial of the International Pharmaceutical Federation. Other notable events that occurred in 1912 were:

- Republic of China established
- The Boy Scout Association established throughout the Commonwealth
- First parachute jump from a moving plane
- Sinking of the Titanic
- Boston Fenway Park opens

Most of us will never experience the second centennial of FIP. This presents the members of FIP with a perfect opportunity to reflect on the past 100 years, and to prepare a forward looking document to address the current challenges and create the opportunities to produce better health outcomes. I hope that should the member organizations of FIP choose to prepare a declaration on the rational use and development of medicines (or something similar), that the declaration will be meaningful, measureable, and honest. The challenges are great. People everywhere are depending on us for better health outcomes with more safety, new therapy, and less costs.

In spite of the challenges, Juliet declared her love for Romeo. How much more should we declare our intentions to the people we serve.

AUTHOR'S INFORMATION

**Warren Meek**

*Is the President of C7 Consulting in Halifax Canada and a member of the board of the Community Pharmacy Section – FIP.*



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The FIP Congress is the ONLY truly global event of its kind. Join us and become a part of our growing network at the FIP Congress in Hyderabad.

We're waiting to meet you!



71<sup>st</sup> FIP World Congress  
of Pharmacy and  
Pharmaceutical Sciences

“ You never truly arrive at the final destination of a sustainable practice model. To sustain a leading practice, we must constantly improve. ”