1. Background

Over the year’s pharmacists have gained prominence and they are classed as the third largest healthcare professional workforce after doctors and nurses. However like in many low and middle-income countries, they are not yet recognised in Pakistan. Globally there is a substantial amount of economic and clinical evidence showing pharmacists’ contribution at primary, secondary and tertiary care levels in both high income and low-income countries. This is evident from a range of policy examples from the development of national medicines policies, to improve the use and access to medicines; pharmacists have played a significant role to improve patients’ well being.

With the advancement in treatment and changing global health landscape we see that this role is set to expand. Though a lot of work is being done recognising pharmacists as an effective health workforce, we still see gaps in consumers’, health professionals and policymakers’ understanding towards the role of the pharmacist in Pakistan at all levels. This includes key decision-makers in medicines use and access, academia, industry, community pharmacy, hospital as well as in the regulatory setting.

Pharmacists can play an important role to improve medicines use as well as to improve patient health outcomes in Pakistan. This is a large health workforce in the country, though the exact numbers are not known however it is estimated that a large number of pharmacies are run without pharmacists in the country. Only 5 per cent of more than 40,000 pharmacies in Pakistan have qualified pharmacists.

This poses significant challenges and to fully utilise the potential and unique skills of this workforce there is a requirement for structural, policy, and regulatory reforms at all levels. If provided ample opportunities, it can contribute to significantly improve public health, chronic disease prevention and management as well as minor ailments diagnosis and treatment in primary care community settings.

The countries where we see the pharmacist’s role evolving are the ones that are mostly high on the socio-economic ladder. However, in the recent past, many middle-income countries have gone up the ladder and many of them have successfully used pharmacists to improve the health of patients and the public. These countries include South Korea and Taiwan where dispensing separations were done and the pharmacist’s role strengthened as a result of the effort.
Pakistan can learn lessons from these countries to overcome these challenges. This brief report identifies some of the challenges pharmacists in Pakistan are facing; opportunities needed for capacity building and policy reform recommendations. An informal poll was conducted using a closed Facebook group ensuring engagement and comments from pharmacists across the various pharmacy sectors. The poll asked the pharmacists to comment on the concerns and challenges that the workforce in Pakistan is currently facing. 342 comments were received and analysed. Key themes were identified and aligned to the FIP Workforce Development Goals (WDG).
2. Key themes

Workforce Policy Formation

a. The Drug Act 1976

Drug Act 1976 of Pakistan is an Act to regulate the import, export, manufacture, storage, distribution and sale of drugs. After 18th amendment known as devolution, DRAP act was introduced in 2012 which is modern extension of the 1976 drug act. Although it is established to provide for effective coordination and enforcement of Drug Act 1976, its role is lacking in making sure that wherever there is sale of medicine there must be a pharmacist present especially in every retail/community pharmacy.

Currently, there is no implementation of the mandatory presence of a pharmacist at the point of medication sales in all-healthcare settings.

Prescriptions requirements need updating and implementing. Prescription Only Medicines should not be sold without a valid prescription.

b. The Pharmacy Act 1967

Pharmacy Act 1967 is an act to establish Pharmacy Councils to regulate the practice of pharmacy and to provide to matters connected therewith. It was last amended on 8th February 1973.

There is an immediate need to amend the law to align it with current pharmacy practices and matters concerning regulation. For example, definitions of a pharmacist and terms related to the pharmacy profession requires updating & their remit within the profession and wider healthcare team needs to be redefined.

The scope of practice must be widened and explored within other settings e.g. public health and military and academia.

Currently, the pharmacist to patient ratio is set at 1:50. With an increasing population and increase in healthcare needs, this requires an immediate review to meet the population demand and to support a high quality and efficient medicines management system.

c. The Pharmacy Council Pakistan

The Pharmacy Council Pakistan (PCP) is an autonomous body established under Pharmacy Act, 1967 to regulate pharmacists, pharmacy support personnel and pharmacy premises in Pakistan. Their mandate is to protect, promote and maintain the health, safety and wellbeing of patients and the public who use pharmaceutical services in Pakistan.
However, the current central Council is devolved which is causing misdirection and lack of regulation of the profession. There is an absolute immediate need for the Council to be re-instated and restructured with a clear scope and leadership in order for it to implement any changes that the profession requires (including policy changes).

Registration of pharmacists is currently via a paper based system and this must be updated to a digital system to maintain an accurate database of pharmacists; there is currently no official data of the number of pharmacists in Pakistan.

### Academic Capacity

*Curriculum design*

Issuing of a Non Objection Certificate (NOC) and pharmacy curriculum design for the Doctor of Pharmacy (Pharm D) programme is at the prerogative of the PCP and its provincial councils.

The existing curriculum is heavily science based with very little emphasis on pharmacy practice. There is a need to review the curriculum to make it more representative of the role of the pharmacist in various settings. Having practising pharmacists deliver this component of the course would be a valuable teaching and learning intervention.

In light of the recent COVID19 pandemic, considerations should be made to include a public health element to the Pharm.D course.

### Foundation Training

Within the pharmacy curriculum there are limited opportunities for pharmacy practice placements. There is a huge requirement for Pharm.D graduates to engage with a training programme post graduation to develop their clinical, consultation and patient interaction skills.

*a. Internships Programme*

This should be incorporated into the curriculum for a suitable duration of the course; or can be peppered throughout the course. Currently very few hospitals are offering such programmes e.g. SKMCH in Lahore in collaboration with Karachi Diagnostic Centre and Clinic is offering internships during vacation times for pharmacy students.
b. Residency Programme

PCP should introduce a one-year paid residency program (6-month hospital & 6-month community), which should be mandatory for all 5-year pharmacy courses. Again, very few hospitals are offering such programmes for graduates e.g. SKMCH in Lahore\textsuperscript{12}.

Competency Development

Clinical skills of the pharmacy profession are somewhat lacking in Pakistan for a variety of reasons as discussed above. In addition, soft skills such as communication and patient counselling skills also need to be addressed. Below are some of the aspects respondents of the poll identified as areas of competency building.

- Prescription screening
- Aspects of pharmacovigilance
- Identifying and reporting medication errors
- Medication use review
- Pharmacy practice research in collaboration with academic institutions

Service provision and Workforce Education & Training

Continuous education and training is much desired in Pakistan. This is something the professional body can take ownership of in partnership with national and international organisations.

The Pakistan Pharmacists Association (PPA) is the national professional body of pharmacists engaged in various facets of the profession of pharmacy. It was established under the Pharmacy Act 1967.

In Pakistan, pharmacists are mostly employed in the pharmaceutical industry and their role is being neglected as public health professionals. There is a need to recognise this role and develop and train pharmacists in areas such as patient counseling, safe use of medicines, and in the diagnosis and treatment of minor ailments. The knowledge and skills in these areas are needed in order for pharmacists to improve patient health outcomes.

Pharmacist's involvement in improving the use of medicines is also needed; especially in the country where irrational use of medicines is on the rise and medication errors are common.
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<th>CPD Strategies</th>
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| Mandatory CPD for pharmacists before annual re-registration should be made a requirement. This process can track and document the skills, knowledge and experience of the profession as well as areas that require support and re-enforcing.  
PCP should incorporate a CPD strategy for pharmacists in Pakistan who can engage with reflective practice, which in turn improves patient health outcomes. |

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<th>More Opportunities for Women in Pharmacy</th>
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| More than 70% of the global health workforce are women. By 2030, 73% of the global pharmacy workforce will be women.  
Female pharmacists bring unique perspectives to the field. Improving gender equality within the pharmaceutical workforce requires urgent action. Research shows that decent work environments, flexible work hours, day care centres, breast-feeding breaks and paid maternity leaves are essential policy tools to improve women's inclusion in the workforce. Similar initiatives are needed in the pharmaceutical workforce.  
The National Alliance for Women in Pharmacy, a PPA initiative sets out to support, enable and recognise female pharmacists in the workplace and to provide a supportive environment and mentorship for the advancement of women leaders. This will then in turn contribute to the sustainability of the pharmaceutical workforce.  
NAWP are committed to work with the pharmacy professional body and regulator to inform and influence policy and advocate for female pharmacists. |

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<th>Advocacy – to the public and other healthcare professionals</th>
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| The pharmacy profession in Pakistan is still struggling to make its place within the healthcare team. There needs to be an advocacy campaign around the role of the pharmacist for patients, public and other healthcare professional.  
Pharmacists are an integral part of the healthcare team, being the experts in medicines. |
3. Identify Priority Areas

From the 8 identified themes, 5 areas have been prioritised. The first priority is WDG1.3. Until and unless the legislation and policies are reformed with an implementation strategy, the other WDG areas highlighted cannot be addressed. Stakeholders such as the Drug Regulatory Pakistan (DRAP), PPA and PCP must collaborate to reform and implement policy.

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4. **Key Recommendations**

1. To reform regulations and laws about pharmacy to align with a competent professionally developed pharmacy workforce

2. To strengthen and empower female pharmacists and their roles in the key leadership positions in the country

3. Pharmacists’ competency development as of international level to meet local and global needs

4. To develop a mandatory continuing professional development programme

5. To update the pharmacy curriculum and professional standards for academic pharmacists

**Workforce Transformation Programme – Pakistan**

The FIP Workforce Transformation Programme (WTP) is a global programme that supports FIP’s member organisations and stakeholders in leading the advancement of their national pharmaceutical workforces. The programme is designed to strategically support countries in developing needs based, national workforce development strategies, workforce planning and actions. The WTP vision is for every country to have a needs-based, national strategy and action plan for pharmaceutical workforce development. FIP are in the process of signing a MoU with the PPA to commence the programme in Pakistan; addressing some of the areas which have been identified in this report.
References

   http://store.elsevier.com/product.jsp?isbn=9780128037003&pagename=search

2. BABAR, Z.U. Pharmaceutical policy in countries with developing health systems (Print ISBN: 978-3-319-51672-1) Adis/Springer, April, 2017


10. Pharmacy Council of Pakistan Website
    https://www.pharmacycouncil.org.pk/

11. Pharmacy Internship Program – Karachi Diagnostic Centre and Clinic

12. Pharmacy Residency Program – SKMCH&RC, Lahore

13. The FIP Workforce Transformation Programme (WTP)