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Abstract

Planning and development of the pharmaceutical workforce is fundamental for achieving universal health coverage and the United Nations Sustainable Development Goals by 2030. The International Pharmaceutical Federation (FIP) has recognized the importance of constructing mechanisms for transforming the global workforce. FIP has launched a developmental roadmap in order to support and facilitate global, regional and national transformations of pharmaceutical education and the workforce. However, the limited existing literature on the pharmaceutical workforce in the WHO Eastern Mediterranean Region (EMR) report persistent workforce challenges. This necessitates stronger engagement across all EMR countries to develop workable and sustainable strategic plans for workforce and educational development based on the ‘adopt and adapt’ approach to national transformation needs and the FIP roadmap. EMR countries have an opportunity to engage with FIP in collaborative programmes to implement the FIP roadmap locally, provide proof of concept and leadership model for other WHO regions.

Keywords: Pharmaceutical workforce; universal health coverage; FIP roadmap; pharmaceutical workforce development goals, regional transformation

A global roadmap for the pharmaceutical workforce

In September 2015, the United Nations (UN) General Assembly launched seventeen Sustainable Development Goals (SDGs) that included targets relating to health and health care delivery. One of the SDGs describes achieving Universal Health Coverage (UHC) by 2030, which is dependent on access to quality health services including the safe and effective use of medicines and vaccines (1). In line with this, three of the six building blocks in the World Health Organization’s (WHO) policies for health systems relate to health workforce, health service delivery and access to essential medicines (2). Recognizing the importance of the health workforce in strengthening systems, the WHO launched the ‘Global Human Resources for Health Strategy: Workforce 2030’ in 2016; the strategy calls for swifter progress towards meeting both the SDGs and universal health coverage through ensuring equitable access to a competent and capable health workforce (3). Considering the UN targets, WHO policy building blocks, and the WHO Global Strategy on the health workforce, it can be argued that the planning and development of the pharmaceutical workforce – collectively the healthcare experts in medicines – is fundamental in strengthening health systems, and for achieving the SDGs and UHC by 2030 (4).

FIP is the global leadership body with an outreach to over 4 million pharmacists and pharmaceutical scientists around the world (5). FIP, through its formal relations with WHO and official partners, have recognized and communicated the importance of programmes for transforming pharmaceutical workforce, with a key focus on global mechanisms for workforce development and education (6). FIP, through its relations with WHO, advocates for pharmacists’ and pharmaceutical scientists’ roles in the global health agenda.

FIP has continuously worked to expand the evidence on the education and workforce development through a series of global reports (5,7,8). These reports collectively represent a call for action with regard to global pharmacy workforce transformation (5). They include recommendations on integrating pharmacy workforce planning into broader national health workforce planning (7), emphasizing the significance of a ‘needs-based’ approach in the development of a locally (nationally) relevant workforce development (8). Regular trends reports
continuously provide comprehensive up-to-date analyses of the global pharmacy workforce (9).

In 2016, FIP led the co-creation of a developmental roadmap to facilitate the global transformation of pharmaceutical education and workforce. The roadmap was developed in collaboration with national leadership bodies and was approved by consensus at the Global Conference on Pharmacy and Pharmaceutical Sciences Education held in Nanjing, China in 2016. The roadmap is composed of three major elements: a Global Vision for Education and the Workforce; a set of Pharmaceutical Workforce Development Goals (PWDGs); and a set of Statements on Pharmacy and Pharmaceutical Sciences Education (the ‘Nanjing Statements’) (10).

The Global Vision for Education and the Workforce describes the future professional directions for workforce transformation and how education supports the evolution of practice and science. The thirteen PWDGs provide a systematic framework for clear measures and indicators to facilitate national workforce planning, implementation, and monitoring towards the achievement of the Global Vision. The Goals are purposefully aligned with the UN SDGs and WHO strategies for human resources for health and health workforce transformation. The PWDGs are grouped into three clusters: ‘academy’, with a focus on education providers primarily for initial education and training; ‘professional development’ with a focus on pharmaceutical workforce development; and finally ‘systems’, that has a focus on systematic policy development, governmental and leadership strategy (11).

The Nanjing Statements are primarily intended for providers of initial education and training as well as providers of continuing professional development and education. The document comprises sixty seven statements on education and training, grouped into eight clusters: shared global vision; professional skills mix; recruitment of students; foundation (early years) training and professional leadership; experiential education; resources and academic faculty; quality assurance; and finally continuing, professional development (12).

**Evidence and implementation in the Eastern Mediterranean Region**

Published literature on the pharmaceutical workforce in the EMR is limited compared with other health care professions (13,14) and to other WHO regions that have been substantially developing their health workforce intelligence strategies and processes (15,16). The lack of critical literature on human resources and health workforce is evident across the WHO Eastern Mediterranean Region in general (17), a situation that negatively impacts on workforce intelligence and monitoring in the health sector (18). However, it is worth noting from this available literature an indication that one principal challenge is the evident imbalance in the distribution and capacity of the pharmaceutical workforce. This implies an urgent need for better
coordination and monitoring efforts of the workforce both regionally and globally (19) while learning from intelligence generation experiences of other countries. For example, in New Zealand, Health Workforce has moved from predictive analytics using quantitative methods that estimate future numbers of health workers to the use of strategic foresight philosophy, which is focused on aggregated service models. These models consider realities of healthcare futures, advocate for contextual operational flexibility, and collect qualitative and behavioural information of workforce professionals in addition to their professional registration data, in order to improve health workforce distributions and provision (15).

The workforce trends reports released regularly by FIP provide detailed analysis of capacity, production, gender trends across various WHO regions (9,20). Both the 2015 and 2018 FIP workforce intelligence reports indicated that EMR is showing a relative and absolute increase in capacity, as well as the largest proportional increase in pharmacist workforce and production compared with other WHO regions. Furthermore, the reports indicated that based on available data, Egypt and Jordan have some of the largest current graduate production capacities in the world (9) per capita. However, these observations, as pointed out in the 2018 report, are based on a limited number of EMR countries providing data (N=6 from the 21 EMR countries). This data gap necessitates the need for a broader and stronger engagement across all EMR countries, coordinated by FIP, in order to gain the required data for future workforce intelligence analysis and evidence-based recommendations. Furthermore, collective action by the region’s pharmacy leaders is needed to strengthen workforce planning and development across all countries. Other research conducted in the EMR highlighted an increasing number of pharmacy schools being established in some EMR countries. This potentially has an impact on pharmacy practice and the supply of pharmacists to other countries through mobility and migration trends. Taken together, this may be indicative of a continued disconnect between the education, regulation and practice sectors that could be associated with lack of involvement of professional leadership bodies in workforce related issues (9,21–24), including the significant, but largely unmeasured, impact of transnational professional migration.

The increased production of graduates and pharmacists in the EMR, linked with inadequate data intelligence and workforce planning and career pathways, raises the issue of effective regulation and policy formation by policymakers and professional leadership bodies. This is a critical issue and further raises concerns for the policymakers in the region (9). This is a compelling argument that requires urgent concerted action across the EMR, utilizing a needs-based approach in the development of a regional workforce development vision; we argue that based on evidence, implementation strategies and workforce monitoring measures should ideally be mapped to the FIP global call for country case studies released in 2017 (9). This call aims to promote and align national workforce development projects with the systematic PWDGs in order to provide both a concerted and collaborative incentive for workforce transformation. By utilizing the PWDG framework and Nanjing Statements to identify national gaps and needs, EMR countries will be able to identify policy and ‘mechanistic’ gaps, and develop workable strategic plans for workforce development and educational policies based on
the ‘adopt and adapt’ approach to national transformation needs. Furthermore, working collectively, stakeholders in the EMR could demonstrate a pilot regional case study in leadership, enabling other WHO regions to establish similar proposals for the development of workforce planning and strategies based on identified need – a global cascade of concerted action and activities.

**A call for action: from country-level commitment to regional transformation**

The FIP 2018 workforce trends report concluded that further focused work is needed at regional levels to initiate specific discussions around needs-based approaches and inter-regional commonalities for health workforce transformation. Therefore, stronger engagement and commitment to workforce development is needed by all EMR countries to foster change on a regional level.

The EMR region can benefit from examining experiences in other countries in strengthening the capacity and capability of the health workforce after realizing the demand for basing local action on local intelligence. For example, achieving a critical mass in the public health workforces by evaluating entry-level education and training, and conducting structured work-based education and training models through traineeship schemes (such as foundation training) or re-structuring continuous professional development activities and by facilitating specialization opportunities (often through further postgraduate training in management and leadership, for example (16)).

Collectively, individual national-level commitments would result in regional transformation in the EMR. Such a regional-level transformation would offer a ‘regional case study’ for other WHO regions. Coordinating a concerted regional effort requires better collaboration and participation of academic, practice, professional, and governmental sectors across the region, in order to collectively engage with transformational mechanisms, namely the PWDGs and Nanjing statements, in order to identify, address and monitor workforce trends, needs and progression. FIP has developed mechanisms to utilize and implement the Nanjing outcomes; for example, development self-assessment tools from the Nanjing statements and piloting a Workforce Transformation Programme that facilitates national-level partnerships to transform the global workforce one country at a time.

Concerted regional action across the EMR provides opportunity for collaboration for mutual benefit and joint leadership across the region and the countries within. Such a regional commitment would build on the four strategic objectives of the “Framework for action for health workforce development in the Eastern Mediterranean Region” that was developed by WHO’s EMR Office in 2018 to implement the Global Strategy on Human Resources for Health (25). This would also progress and support the operationalization of the recently released “Amman
Commitment" to action on primary healthcare reform for EMR (26). Furthermore, establishing an EMR-wide pharmaceutical workforce pilot case study provides a better pragmatic basis for workforce intelligence planning, educational reform, policy development and leadership advocacy by engaging all countries across the region to contribute and share data for a systematic needs-analysis. Transformative change at regional level relies on the full commitment and engagement of each of the EMR’s 21 countries; only then can we progress the WHO Global Strategy on Human Resources for Health in line with the regional framework for action for health workforce development.

The evidence obtained from a needs-based analysis of pharmaceutical workforce and education policy can be used in the development of a focused and credible region-wide vision for workforce planning, and the creation of education and transformative policies for professional careers. These evidence-led policies would address the region-wide challenges, such as: long-term conditions requiring complex medicines, the medicines-related complexity of co-morbidity, transformation into pharmacy-led patient-focused services, improvement of pharmacy input into public health policy and impact, and the development regional leadership in professional practice for young and advanced practitioners. There is no healthcare without a workforce and the time has come to pay more attention to this critical factor in the improvement of health for the EMR nations.

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