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## International Series: Integration of community pharmacy in primary health care

# Primary health care policy and vision for community pharmacy and pharmacists in Jordan

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### Abstract

Jordan is considered a low middle-income country with a population of 9.956 million in 2018. It is considered the training center for healthcare professions in the region, as the Jordanian healthcare sector has seen remarkable development. In 2017, the expenditure on health as a percentage of Gross Domestic Product (GDP) was estimated to be around 8%. The healthcare sector is divided into two main sectors; the public and the private sector with both including hospitals, primary care clinics and pharmacies. The Jordanian government has a strong commitment to health and educational programs; hence, an increase in the number of pharmacy schools and pharmacy graduates has occurred in the past few years. Health authorities, such as the Jordan Food and Drug Association (JFDA) and the Jordan Pharmaceutical Association (JPA) have played an important role in ensuring the availability and affordability of medications, and has influenced the practice of pharmacists. Protecting the pharmaceutical market and professional interests, preserving pharmacists' rights, building needed cooperation with the internal federation, and maintaining professional ethics are some of the objectives for the JPA. Hence, the integration of community pharmacists into the primary healthcare system is considered vital to the different health authorities in Jordan, emphasizing the fact that community pharmacists are the most trusted, accessible, and affordable healthcare providers in the country. There have been many developments in the pharmacy practice in the past recent years, including the establishment of 'Good Pharmacy Practice', new curricular development based on the international accreditation (the ACPE), a new immunization program, and health services research aimed to save patients' lives, influence expenses, and improve patients' quality of life. Although these developments in pharmacy practice are promising, challenges continue to exist, specifically the establishment of an evidence base for pharmaceutical care services such as the medication management review service.

### Keywords

Pharmacies; Primary Health Care; Delivery of Health Care, Integrated; Ambulatory Care; Community Health Services; Pharmacists; Community Pharmacy Services; Professional Practice; Jordan

### Introduction

Jordan is considered a low middle-income country with a population of 9.956 million in 2018, with a population growth rate of 1.39% in 2019.<sup>1-3</sup> Due to the security and stability of the healthcare sector in Jordan, the country has been recognized as one of the best healthcare schemes in the Middle East.<sup>2</sup> In recent years, the healthcare sector has developed rapidly, reflecting positively on the healthcare status of the Jordanian and non-Jordanian citizens.<sup>1,4</sup> The overall average life expectancy in Jordan was estimated to be 74.6 years in 2020, showing an increase of 0.18% from 2019.<sup>5</sup> The maternal mortality rate dropped to 29.8 deaths for every 100,000 live births in 2018.<sup>6</sup> Public health

insurance has been expanded, providing more government subsidies and health coverage for all citizens, including pregnant females, the elderly, children under the age of six, and residents of remote areas.<sup>4,7</sup> The proportion of the population with public health insurance has reached 70% of Jordanians, and 55% of the Kingdom's overall population.<sup>2</sup> The World Bank, based on World Health Organization (WHO) data, reported that the total expenditure on health per capita (USD 798, in 2014) and the total expenditure on health as a percentage of Gross Domestic Product (GDP) was estimated at 7.5% in 2014 vs. 8.1% in 2017.<sup>8</sup>

### Healthcare sectors in Jordan

In Jordan, there are two main sectors in the healthcare scheme: public and private sectors. Both sectors include hospitals, primary care clinics, pharmacies and international organizations.<sup>2,4</sup> Community pharmacies are part of the private sector. Non-governmental and international organizations provide services through the United Nations Relief and Works Agency (UNRWA) clinics for Palestinian and Syrian refugees, the United Nations High Commissioner for Refugees (UNHCR), King Hussein Cancer Center and charity association clinics.

The Ministry of Health (MoH), the Royal Medical Services (RMS), the University Hospitals, and the Center for Diabetes and Endocrinology and Genetics are the main providers in the public healthcare sector. The MoH has many responsibilities, including establishing legislation, provision of licenses for community pharmacists in association with the Jordan Pharmaceutical Association

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(JPA), controlling and regulating the different healthcare professions and healthcare institutions in Jordan.<sup>1</sup>

The MoH employs pharmacists to work in the governmental primary care centers with requirements that pharmacists must be licensed, registered with the JPA, have good English language and have good follow-up and accuracy skills. In addition, they should be able to use any medical equipment needed in the pharmaceutical field, apply international standards while performing their pharmacy work, have a good familiarity with the regulations and laws that govern the profession, have attended successfully the local civil defense and Cardiopulmonary resuscitation (CPR) courses, in addition to any other technical courses related to their specialization in their field. They emphasize that they need to have communication and interpersonal skills.<sup>9</sup>

The Higher Health Council pursuant to Law No. 9 of 1999 is primarily responsible for general policy for the healthcare sector. The Jordan Food and Drug Administration (JFDA), the Joint Procurement Department, the Jordanian Medical Council, the Supreme Council of the Population, the Jordanian Nursing Council, and the National Council for Family Affairs are all important institutions that are part of the healthcare sector, and are involved in the healthcare policy for the local healthcare system.<sup>10,11</sup>

According to The National Strategy for the Healthcare Sector in Jordan, the MoH manages primary healthcare centers (95 comprehensive healthcare centers, 375 primary healthcare centers, and 205 healthcare sub-centers, as at 2013).<sup>1</sup> Primary healthcare services are also provided by the RMS through field clinics and eight comprehensive medical centers. The UNRWA also provides primary healthcare services through 24 different medical clinics.

#### Health insurance in Jordan

Around 82.3% to 86.0% of the Jordanian population has health insurance.<sup>1,11</sup> According to the 2011 insurance coverage data, the largest insurer in the healthcare sector in Jordan is the MoH, covering 35% of the population, followed by the RMS, covering 27% and , UNRWA covering 8%. Private health insurance covers 10% of the population, while the rest of the population is covered by the University Hospitals (covering 2.3%). Approximately 17.7% of the Jordanian population does not have any formal health insurance.<sup>11</sup>

In public healthcare facilities, medications are provided free to patients with medical insurance. For patients with private insurance, the medical coverage, and the degree of copayment (out-of-pocket payment) rely upon the particular insurance product that has been purchased. Patients with no medical insurance (Jordanians or non-Jordanians) pay for their medications or obtain their medications from the UNRWA, UNHCR, or another charitable organization.<sup>2</sup> Individuals without health insurance may benefit from an "exemption" provided by the MoH, and pay 15% of the total cost.<sup>12</sup>

The JPA's Drug and Pharmacy Law, established in 2001, alongside the MoH Public Health Act (2008) and the Narcotic Drugs and Psychotropic Substance Law (1988), govern pharmacy practice in the country.<sup>13</sup>

#### Community pharmacy in Jordan

The JPA is the main Jordan professional organization, established in 1957, with about 25,700 member pharmacists (October 2020).<sup>14</sup> The JPA has several goals that revolve mainly around protecting the professional interests, cooperating with the internal federation, preserving pharmacists' rights, maintaining professional ethics, encouraging scientific research, and protecting pharmacists and their families in case of need and old age.<sup>15</sup>

The JPA membership is mandatory for all pharmacists, which means that a pharmacist cannot practice in Jordan unless he/she is registered with the JPA. In order to register with the JPA, pharmacists must complete their pharmacy degree (Bachelor of Science in Pharmacy or Doctor of Pharmacy degree) from an accredited faculty of pharmacy, complete a total of 1,440 hours of professional training under the supervision of a licensed pharmacist, or in a pharmaceutical factory approved by the faculty, and finally pass an examination prescribed in accordance with the law of practicing the profession of pharmacy in Jordan.<sup>16,17</sup>

In 2016, there were 2,810 community pharmacies distributed across the 10 country governorates.<sup>14,18</sup> In 2020, there are 3,500 community pharmacies distributed across Jordan. Chain pharmacies have grown to 56 community pharmacies in 2017 from one in 2001.<sup>19</sup> No data has been published regarding the economic status of community pharmacies in the country other than the profit ratio of medications allowed for community pharmacies, as set by the JFDA, which ranges from 20-26% of the total drug price sold. Drug prices are set by the JFDA.<sup>20,21</sup> The minimum monthly salary of a community pharmacist is estimated to be around JD 300 (USD 423) by the JPA and JD 500 (USD 705) for inpatient clinical pharmacists.<sup>22</sup>

#### The Good Pharmacy Practice (GPP) blog launched by the JPA

Patient-oriented pharmaceutical care in Jordan is not as developed as it is in other countries, primarily due to the lack of services offered by the community pharmacies.<sup>23-26</sup> Nevertheless, the JPA has become more active and has launched the Good Pharmacy Practice (GPP) blog in 2010 to stimulate the delivery of patient-focused healthcare and improve the role of community pharmacists. The GPP aims to introduce the concept of pharmaceutical care, good practice, professional responsibility of the pharmacist, and standards of good medications dispensing in the country. The GPP blog also contains a detailed description of the ethics of the pharmacy profession in the country. The JPA provides in the GPP blog the main concepts of pharmaceutical care including 1) establishing a relationship between the pharmacist and the patient; 2) gathering all the information regarding the patient's health condition and the medications he/she takes in order to build a health database for the patient; 3) evaluating the information in order to identify any problems related to the treatment; 4) providing patients with a pharmaceutical care plan in terms of the choice of their medications, dosages, method and duration of use; 5) providing appropriate counseling for each of the medications prescribed; and 6) implementing and monitoring the pharmaceutical care plan provided in

order to achieve the best health outcomes possible. The JPA promotes the need for pharmaceutical care services, aiming to improve patient's quality of life, relieve patient's symptoms or at least reduce their severity, and provide health awareness which can contribute to the prevention of diseases.

The JPA recommended that Jordanian pharmacists must accept personal responsibility to the provision of optimal pharmaceutical care, following the philosophy of the pharmacist being a professional healthcare provider and not a commercial seller.

A study by AbuRuz *et al.* stated that more than 70% of pharmacists in Jordan recognize the main goal of pharmaceutical care and the role of the pharmacist, and that over 62% of them were found to have the correct understanding of the basic concept of pharmaceutical care. Yet, only 45% were able to provide an acceptable and accurate definition of what is pharmaceutical care.<sup>27</sup>

### Pharmacy education in Jordan

There are 19 universities, 5 of which are public and 14 private, offering the 5-year Bachelor of Science in Pharmacy degree. Two of the public universities offer the 6-year Doctor of Pharmacy degree. Many faculties offer the Master of Science in pharmaceutical sciences or the Masters in clinical pharmacy.<sup>2,19</sup> In the previous five years, many of the faculties have moved towards international accreditation, the Accreditation Council for Pharmacy Education (ACPE), to assure and progress the quality of pharmacy education in the country.<sup>19</sup> About 25% of the faculties of pharmacy in Jordan have achieved this goal.

### The role of community pharmacists in Jordan

Most of the pharmacists in Jordan work in the community field.<sup>16</sup> The integration of community pharmacists into the primary healthcare system is of the utmost importance for the future of the pharmacy profession and society since they are considered to be the most trusted and accessible healthcare providers in the country.<sup>26,27</sup> The government has emphasized the importance of the role of the pharmacy profession and the role of the pharmacist in the primary healthcare. The government's strategic plan for 2018-2022 highlighted the importance to raise the level of pharmacy services provided to patients in hospitals, employ in all primary centers with pharmacy workers, improve working environments, update pharmaceutical policies and procedures, follow-up on reports published (30 pharmaceutical protocols have been updated and published on the website of the Ministry so far), work on plans to rationalize the use of drugs and its implementation, follow-up on their application and modernization periodically. The ministry reported in their plan that more pharmacists are needed to cover all the healthcare facilities in an acceptable manner, and that more capacity building is still needed. Hence, within the ministry's future action plan included are, training of hospital pharmacists as a priority, review and circulation of the pharmaceutical bulletins received from the JFDA, preparation and approval of plans to adjust the dispensing of drugs in ambulances, emergencies, anesthesia and resuscitation sections in hospitals, the preparation,

distribution, and activation of treatment protocols, improving procedures including pharmacist's job description, drug dispensing systems used in hospitals, the activation of the 'double-check' procedure during drug dispensing, commitment to a patient record the dispensed drugs, updating of the pharmaceutical policy guide, provision of pharmaceutical advice to patients, their family and the healthcare team, and capacity-building workshops for pharmacists.<sup>28</sup>

A study by Wazaify *et al.* reported that one in four individuals in Jordan recalled visiting community pharmacies in order to get services not related to medications, such as blood pressure measurement, weight measurement, ear piercing or irrigation, and first aid services. In addition, 50% of the individuals reported that they get these services for free, and 37.4% of them reported that they would be happy to pay for these services in the future.<sup>29</sup> Basheti *et al.* reported that 19.5% of individuals would be willing to pay for pharmaceutical care services, such as the medication management review service. Majority of individuals (50.8%) reported that their major source of advice for medication use and medical management is community pharmacy. Hence, it appears that community pharmacy is well placed to deliver a wide range of services including providing medical advice, general education on medications, counseling on adherence, meeting Over The Counter (OTC) needs, and providing OTC medications or supplements.<sup>26,30</sup> These services could be delivered to in-need populations, similar to the service offered in a previous clinical study delivered to the Syrian refugees in Jordan.<sup>24,31,32</sup>

The introduction of good pharmacy practice in the country has highlighted the importance of the interaction between the pharmacist and the patient, paving the way towards new services becoming a reality.<sup>19</sup> An excellent example is the newly approved immunization pharmacy service, where pharmacists became permitted by the JFDA for the first time, in September 2020, to administer the flu vaccine in the pharmacy.

The implementation of the immunization service by community pharmacists was requested by a group of pharmacists promoting the role of the pharmacy profession as a health care provider within the health care system; the group is led by Goussou, a registered practicing pharmacist and the current vice-president of FIP.<sup>33</sup> The high accessibility, convenience, and suitability of community pharmacies compared to other healthcare facilities in Jordan were considered to be the most important benefits.<sup>34</sup> In addition, the cost reduction for patients made community pharmacies more likely to be visited as that pharmacists do not charge patients for the influenza vaccine. The service was approved on the basis that it will lead to improvements in the provision of healthcare services, reduce the rate of influenza in the community, and improve public health. However, some of the identified barriers were insufficient experience of pharmacists, physicians' attitudes, and lack of private areas in community pharmacies.<sup>34</sup> As a result, the JPA will implement new vaccination training programs for pharmacists focusing on the objectives of vaccinations, safety, contraindications and precautions, dosing, correct

injection technique, and the reporting of adverse drug reactions.<sup>34</sup> In addition, pharmacy schools in Jordan needs to prepare students via different workshops tailored to deliver the required competencies. An accreditation process has been established by the JPA.<sup>15</sup>

#### Pharmaceutical care studies conducted in Jordan

Implementation of clinical pharmacy services and the medication management review service in hospitals and community pharmacies in Jordan have to be shown to improve patients' quality of life, decrease medication-related problems, and enhance patients' adherence to medications by improving their knowledge about their medications and diseases.<sup>25,26,35</sup> Other services have also been studied, such as the pharmacy drive-thru service recently introduced in a chain community pharmacy in Jordan.<sup>32</sup> A number of studies have evaluated the awareness of pharmacists and patient's perception about medication reconciliation service in different settings including community pharmacy, and hospitals.<sup>36,37</sup>

#### Challenges and opportunities

Although pharmacists play a major role in delivering healthcare services to patients, several challenges and barriers exist preventing pharmacists from fulfilling their role. One of the main barriers is the lack of legal regulation and laws. With the increase in competition between the pharmacies, especially the chain pharmacies in Jordan, pharmacists are influenced by business objectives.<sup>30</sup> Hence affecting the counseling time provided for the patients, selling unneeded OTC medications and cosmetics, and affecting decisions in recommending less expensive generic

medications.<sup>30</sup> The lack of pharmaceutical training, therapeutic knowledge, clinical problem-solving skills, acceptability by physicians, in addition to a lack of communication skills result in suboptimal patient trust in the pharmacist are also important barriers.<sup>26</sup>

Despite the challenges that face community pharmacists in Jordan, research has showed that the majority of patients recognize an expanded role than merely the dispensing medications, signaling a significant opportunity.<sup>26</sup> Most patients reported relying on the pharmacist to provide them with information about medications, explaining details about their healthcare problems as well as monitoring their blood pressure and other services. More than half of the patients support a greater role to provide a better pharmaceutical care. The GPP program recommendations include providing continuous training programs to pharmacists, offering a private counseling area to patients, retaining electronic medical records, and using decision support software to help pharmacists identify drug-related medication interactions.<sup>2</sup> With such improvements Jordanian pharmacy practice and community pharmacist's role, a significant enhancement in the quality of healthcare and public health can be foreseen.

#### CONFLICT OF INTEREST

None.

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