

International Series: Integration of community pharmacy in primary health care

Primary health care policy and vision for community pharmacy and pharmacists in Lebanon

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Abstract

Within a crippling economic context and a rapidly evolving healthcare system, pharmacists in Lebanon are striving to promote their role in primary care. Community pharmacists, although held in high esteem by the population, are not recognised as primary health care providers by concerned authorities. They are perceived as medication sellers. The role of the pharmacist in primary health care networks, established by the Ministry of Public Health (MOPH) to serve most vulnerable populations, is limited to medication delivery. The practice of the pharmacy profession in Lebanon has been regulated in 1950 by the Lebanese Pharmacists Association [Order of Pharmacists of Lebanon] (OPL). In 2016, the OPL published its mission, vision, and objectives, aiming to protect the pharmacists' rights by enforcing rules and procedures, raise the profession's level through continuous education, and ensure patients' appropriate access to medications and pharmacist's counseling for safe medication use. Since then, based on the identified challenges, the OPL has suggested several programs, inspired by the World Health Organization and the International Pharmaceutical Federation guidelines, as part of a strategic plan to develop the pharmacy profession and support patient safety. These programs included the application of principles of good governance, the provision of paid services, developing pharmacists' core and advanced competencies, generation of accreditation standards for both community pharmacy and pharmacy education, suggesting new laws and decrees, continuing education consolidation and professional development. There was an emphasis on all decisions to be evidence assessment-based. However, OPL faces a major internal political challenge: its governing body, which is reelected every three years, holds absolute powers in changing strategies for the three-year mandate, without program continuation beyond each mandate. Within this context, we recommend the implementation of a strategic plan to integrate pharmacy in primary health centers, promoting the public health aspect of the profession and taking into account of critical health issues and the changing demographics and epidemiological transition of the Lebanese population. Unless the proposed blueprint in this paper is adopted, the profession is unfortunately condemned to disappear in the current political, economic and health-related Lebanese context.

Keywords

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

BACKGROUND

Lebanon, a developing Middle Eastern country situated to the Eastern side of the Mediterranean Sea, is currently undergoing demographic changes. In 2012, the Lebanese population was estimated at 4.5 million and by 2017 had reached 6.5 million. This increase was related to the inflow of Syrian refugees upon the declaration of war in 2012.¹ According to the World Bank, 24% of the population is below 15 years of age, and 8% above 65 years of age, which indicates that almost half of the population is active, with an age dependency ratio of 47%.²

The country is also facing public health challenges: the fight against non-communicable diseases (85% of the burden of disease), the lack of health promotion across the life cycle, and the establishment of health preparedness and surveillance systems.³ Although Lebanon is an upper-middle-income country, the healthcare system is struggling due to several events the country has endured. The civil war (between 1975 and 1990), the Syrian interference (1991-2005), the Israeli war and its consequences. The Syrian refugees' influx has led to an unprecedented

economic crisis.⁴ Coupled with mismanagement at the political level, instability and financial crises were followed in December 2019 by the COVID-19 pandemic, which added to the collapse of the Lebanese economy.⁵

Within a struggling and rapidly evolving healthcare system, the pharmacists are striving to promote their role in the community and the hospitals; the clinical aspect of the profession still needs to be established. On another hand, collaboration with the pharmaceutical industry has a legal framework that is limited to trade and product sales, while regulations related to ongoing marketing and research activities are missing. To date, pharmaceutical products managed by pharmacists are considered goods for the median to high socioeconomic levels populations, while the poorest categories acquire their medications through institutions where non-pharmacists manage medications procurement, storage, distribution and administration, mainly through charity and a public network of primary healthcare centers (mainly dispensaries).

PRIMARY HEALTHCARE IN LEBANON

According to 2016 WHO data, the total Lebanese population estimated at 6 million spends 6.4% of the GDP on health – 47.6% from public funds, 36.4% from out-of-pocket payment, and the rest (16%) from private insurance companies. Importantly 5.2% of households experience catastrophic health expenditure.^{2,6} The Lebanese healthcare system relies primarily on the private sector that

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represents 80% of hospitals and 68% of primary health centers (PHC) owned by non-governmental organizations, religious instances, and political parties. Thirty two percent of PHC are owned by the government. The public sector serves the lower socioeconomic status vulnerable populations and refugees, through its hospitals and primary healthcare network.⁷ It is noteworthy that during the COVID-19 crisis and as of February 2020, the public sector was more involved in patient screening and treatment, with the objective of implementing a long-term expansion strategy, such as the provision of public hospitals with modern equipment, the restructuring of their human resources and the renovation of their buildings. However, public health coverage for all the Lebanese population is far from being achieved. Despite the presence of the social security fund, private insurance companies, and some additional private/public funds, a substantial percentage of the population is only entitled to secondary and tertiary care Ministry of Public Health (MOPH) coverage.² Thus, health coverage for the poorest is not always possible, given the economic difficulties that have been drowning the country in debt. The government covers the healthcare cost of non-insured populations in private institutions, thus playing the role of a third-party payer and currently owes the private health sector institutions millions of dollars.⁸

In line with WHO, the Lebanese the Ministry of Public Health (MOPH) defines PHC as “the essential health care, made available in a comprehensive way for individuals and families in the community, to access with affordable costs. Primary health care is considered the core of the health system, and is based on the principles of justice, equality, and rational use of resources”.⁸ Nevertheless, the reality differs from that axiom, given the Lebanese healthcare system is oriented towards curative care. MOPH only allocates 5% of its budget to preventive PHC services: The government supports a national network of PHC centers to provide reduced-cost consultations and free chronic medications and vaccines to beneficiaries all over Lebanon.^{7,9,10} Six hundred dispensaries related to the private sector (NGOs, religious and political instances) and a network of 226 public PHC centers, PHC centers do not report standardized national indicators, but plans are underway to establish those indicators. Indicators of success are only available for the 17 public owned centers accredited in 2011 by the Canadian accreditation agency.^{8,11}

The PHC strategy of the MOPH includes several programs: communicable diseases, immunization, mother and child health, nutrition, environmental health, non-communicable diseases, health awareness, and essential medication. Each program has its administration, strategy, and objectives. Moreover, the MOPH implements health promotion at schools and plans towards a whole social and health program in collaboration with the Ministry of Education and Higher Education, the Ministry of Social Affairs, the Ministry of Interior, and the United Nations Development Program.¹² The most striking challenge reported by the government is the unprecedented burden of the refugees on the PHC network. The low-income category of the Lebanese population represents 44% of primary care beneficiaries, while the rest are Syrian refugees and other nationalities (56%).² The overcrowded centers and the

increase in waiting times for consultation resulted a drop in the number of Lebanese population subjects attending these centers. Consequently, the World Bank launched in July 2015 the Emergency Primary Healthcare Restoration Project (EHPHR), to re-establish the ratio of Lebanese versus other nationalities visiting the PHC centers: The projects aim to deliver a package of essential healthcare services to 150,000 vulnerable Lebanese in 75 selected PHC centers.¹³

Role of the pharmacist in the PHC in Lebanon

Pharmacists in Lebanon play an important role in the provision of primary care in the community.¹⁴ Nevertheless, the income of community pharmacists is linked to the products' price and not to the service they provide, which does not serve the image they wish to portray to policy makers and MOPH leaders. In parallel to this unfortunate image of “medication seller” in the community and hospital settings, some pharmacists have managerial positions in the public sector and play a major role in the regulatory aspects of medication approval and importation conducted by the MOPH. However, the role of these managers in the PHC strategy is minor because they work in a different department. The MOPH restricts the role of pharmacists in PHC to medication supply and mandates the use of generic medications in the centers to alleviate the high cost of pharmaceuticals on households, government, and insurers. In addition, the essential medications program related to PHC, only involves pharmacists working in the public sector who constitute 2% of Lebanese pharmacists.

Nevertheless, according to the Lebanese general population, community pharmacists play an important role in primary care.¹⁴ A study including 1070 participants demonstrated that the majority (85%) believed that community pharmacists were responsible for their health security and medication safety, while only 30% thought that the role of community pharmacists was limited to dispensing medications. Important only 33.4% trusted the services provided by PHC centers/dispensaries as 65% of participants thought that PHC personnel lack appropriate qualifications. When asked about the quality of medications, 68% of respondents showed trust in medications available in community pharmacies, compared with 34.4% in medications from dispensaries in PHC.¹⁵ They are counseling patients about their chronic and infectious diseases, medication-related matters and nutrition, flu vaccination, treatment of a minor ailment with over-the-counter medications, and are providing services to patients such as monitoring blood pressure and glycemia.¹⁶ Although these services are not required by the law, patients' expectations in Lebanon are high in this regard, and counseling is given at the discretion of the pharmacist, with much variability in practice, depending on the patient insistence, the pharmacist time and willingness.¹⁴

STRATEGIC STATEMENTS FOR THE PHARMACY ORGANIZATION IN LEBANON

The regulation of the pharmacy profession started in Lebanon in parallel with pharmacy academic teaching 17, and the implementation of several laws were deemed necessary following the increasing number of pharmacy graduates over the years, whose numbers and quality was

only controlled by academic institutions. In 1950, the Lebanese Pharmacists Association [Order of Pharmacists of Lebanon] (OPL) – the only official pharmacists' association in Lebanon – was established, and it was not until 1994 that a second law (367/94) addressed the practice of the pharmacy profession in the country (rules for registration and practice).¹⁷ To practice the profession of pharmacy in Lebanon, registration at the OPL is mandatory. However, the OPL does not differentiate between different pharmacy specialties.

In 2016, the OPL published its mission, vision, and objectives. The aim was to protect the pharmacists' rights by enforcing rules and procedures, raise the profession's level through continuous education, and ensure patients' appropriate access to medications and pharmacist's counseling for safe medication use.¹⁸ The OPL pursues a new vision of implementing the Nine Star Pharmacist role in Lebanon for the pharmacy profession, based on the WHO/FIP.¹⁹ It collaborates with many stakeholders, the Ministry of Public Health (MOPH), the Ministry of Education and Higher Education (MEHE) and universities, to achieve these goals. However, the OPL faces a major internal political challenge: its governing body, that holds almost absolute powers in changing strategies, is reelected every three years based on a program and priorities for the short term 3-year mandate, without system continuation beyond each mandate. This does not always serve OPL's mission and vision, particularly if the successive mandates do not share a common vision for the profession or have the same priorities.

Community pharmacy in Lebanon

According to the latest available OPL list (December 2017), a total of 3,762 community pharmacists (employers and employees) practice in 3,157 pharmacies across the Lebanese territory. National laws and regulations allow each registered pharmacist to own one community pharmacy. Pharmacies are the only for-profit organization allowed to sell prescription and non-prescription drugs. The ratio of pharmacies in Lebanon per 10,000 inhabitants is 66.06, a high number compared to the worldwide mean, with unbalanced distribution across geographical governorates [Mohafazat] with the highest concentration being in Mount Lebanon and lowest in Beirut.²⁰ This distribution of community pharmacies is regulated by law with the opening of a new community pharmacy being dependent on: (1) a minimal distance of 300 meters is mandatory between two pharmacies as per the OPL Decree No. 2622 regardless of the population density; (2) the pharmacist should be the sole owner of the pharmacy without any partners, and should not have any other source of income, except for part-time academic teaching; (3) a licensed/registered pharmacist must be present at all times in the pharmacy during opening hours according to both OPL and MOPH laws.

Despite the presence of a strict legal framework, community pharmacists suffer from a substantial decrease in quality of life, which is the natural consequence of daily challenges they are facing, a gradually decaying national economy, high workload in some locations, medications pricing fixed by the government and financial difficulties preventing them from hiring assistants, in addition to

demanding patients who expect the pharmacist to play the role of a primary healthcare professional.^{14,20,21}

Pricing of medications

Pharmacy profit is directly linked to the total medications' sales, applied for both prescription and non-prescription medications. The remuneration model consists of a fixed percentage of the selling price is allocated to the pharmacist and a small fixed amount (less than half a US dollar per medication). The selling price of all medications in community pharmacies in Lebanon is set by MOPH regulation. MOPH updated the pricing strategies in 2006, and 2014, decreasing dramatically the selling price of most medications, and consequently a fall in the net pharmacy profit.³ In 2006, the MOPH reviewed the 23% fixed percentage of profit allocated to pharmacists and divided medications in four pricing categories (A, B, C, and D) according to the FOB (Free on Board) importation price or equivalent in CIF (Cost, Insurance, and Freight), while allocating a different percentage of profit for each category. Moreover, medications with FOB over 100 USD, previously categorized as A, were classified as category D, and their profit margin decreased significantly. In 2014, MOPH updated the category D to include only the medications with prices ranging from 100 to 300 USD FOB and added a new category E to include medications with prices above 300 USD FOB with a fixed profit of 86 USD, irrespective of the fees and taxes the community pharmacies have to pay 22. Since this margin of profit is insufficient to cover for community pharmacies' expenses and taxes, the majority stopped selling this category of medications.²³ The margin of profit directly impacted (overall 18.4% in 2017) is projected to hit 9.9 % by 2047, according to the OPL estimates.

It should be noted that pharmacists are not compensated for the counseling services they provide at the community pharmacies.

Current challenges of community pharmacy in Lebanon

Based on the above-mentioned key points, community pharmacy in Lebanon has several challenges to overcome:

- The increasing number of graduated pharmacists and over-crowding of community pharmacies in some regions, resulting in unethical competition and practices to attract customers and increase market share.
- The lack of recognition of specialized pharmacists at the OPL and the MOPH levels, which does not encourage new graduates to pursue further studies and ultimately provide higher-level service.
- Financial difficulties and impossibility to hire assistant pharmacists leading to lower service quality, overwhelming of pharmacists, and subsequent burnout.

OPL agenda

In December 2015, based on the challenges and difficulties, the OPL-suggested several programs as part of a strategic plan to develop the pharmacy profession and support patient safety. These programs were inspired by the World Health Organization (WHO) and the International Pharmaceutical Federation (FIP) guidelines and are part of both pharmacist- and patient-related professional and

clinical governance principles. They included the application of principles of good governance, the provision of paid services, developing pharmacists' core and advanced competencies, generation of accreditation standards for both community pharmacy and pharmacy education, suggesting new laws and decrees, and continuing education consolidation and professional development. There was an emphasis on all decisions being research and assessment based.¹⁷

Application of the principles of good governance

In 2015 the OPL adopted various forms of governance national, general, political, corporate, clinical, and educational. It was the modern approach for the OPL board and scientific committee to apply its strategy and reach its goals.

Educational Governance includes all processes and structures related to the performance, effectiveness or responsibility of educational activities and programs with reporting to a program board, learning needs analysis, risk assessment, peer review, and educational analysis. In cooperation with academics, the OPL is focusing on certain educational topics directly related to the pharmacy field. The key consideration of pharmacists is the university curriculum due to its immediate effects on technical competencies and clinical governance. By suggesting new legislation, coupled with clinical competencies for graduates and for preceptors, the objective is for health care practitioners to increase the efficiency of their graduate and postgraduate programs, and establish strong levels of patient treatment.^{24,25} Continuing professional growth, auditing (laws, accountability, and transparency), risk assessment, evidence-based practice, research, and development are part of the process.

Remunerating of services

The OPL started to implement the transition in pharmacist roles by introducing electronic systems such as the electronic patient profile with medication therapy planning, pharmacovigilance and medication safety system and the forum for medication shortage.^{26,27} A memorandum of understanding is currently under development to be signed between the different parties involved such as OPL, MOPH, and third-party payers. These electronic networks are anticipated to enhance patient care delivery.²⁸ The OPL is also negotiating with the authorities concerned, MOPH in particular, to update the payment process of the community pharmacist (fees per service, in addition to the small profit per medication), similarly to developed countries.²⁹

Developing pharmacists' core and advanced competencies

In Lebanon, there is a clear oversupply of pharmacists, especially those with no specialization (no post graduate qualifications). Working in conjunction with academic institutions and concerned authorities, there are efforts to curb the rapid growth of graduates' numbers and pharmacy students' enrollment are being made.³⁰ In parallel, discussions are underway to adjust the graduate pharmacist profile to include international accepted competencies for improved employability.³¹ The OPL has developed and disseminated the structure of core

competencies for entry-level pharmacists, as proposed by the FIP, the WHO and other organizations.^{32,33} Specialized competencies for professional pharmacists are also being developed. These changes will require the academic syllabi to be tailored to international requirements and local needs, and are expected to enhance the graduate experience in the learning environment, leading to the graduation of practice-ready pharmacists.³⁴

Accreditation standards

The OPL is working to create and implement accreditation standards for community pharmacies to guarantee the quality of services given, and others specifics for academic institutions to boost the pharmacist's education.^{35,36}

New laws and decrees suggestions

The OPL has recommended additional legislation by parliament to cover prescription procedures in hospital and community settings. The introduction of standard operating procedures and prescribing instructions for both the prescriber and the pharmacist have been submitted to the relevant authorities and are consideration..

Continuing education consolidation and professional development

Currently, the OPL is promoting the compulsory continuing education legislation (number 190, November 2011) and is seeking to enroll pharmacists from all specialties in continuing education.³⁷⁻³⁹ Converting continuing general education sessions into relevant continuous professional development is ongoing. The OPL organizes special sessions for hospital pharmacists to support pharmacists' in the ongoing hospital accreditation endeavor.⁴⁰⁻⁴² Sessions, geared towards the acquisition of soft skills, are offered for community pharmacists, particularly in the areas of communication, management, and leadership.^{43,44} In addition to the scientific dimension, there is a focus on the public safety element of community pharmacy (patient awareness and promotion, dental treatment, vaccine, and fighting antibiotic resistance).⁴⁵⁻⁴⁷

INTEGRATION OF COMMUNITY PHARMACY IN PRIMARY HEALTH CARE SYSTEM

Currently there is little or no integration of community pharmacy in the Lebanese primary health care system and the MOPH program. Community pharmacy faces many challenges. To overcome these challenges a bold agenda is required with the OPL board prepared to accept and promote strategies which will enhance the profession (Table 1).

To integrate community pharmacy and community pharmacist role in the MOPH PHC program, the following key issues need to be considered and included in the strategy of the upcoming OPL board:

- Establish a clear strategic plan with clear steps for the integration of PHC and community pharmacy. It would be necessary to generate appropriate policies and procedures to include: a legal framework, the preparation and implementation of bold and innovative practice programs, such as participation of community pharmacists in smoking cessation, nutritional advice,

Objective	Activity	Where do we stand	Difficulty
1-Improve pharmacy education	Implement core competencies	Ask universities to implement competencies	+
	Implement researcher and preceptor competencies	Suggest available documents to universities	+
	Implement the Pharmacy Accreditation	Collaborate with the MEHE and universities (project ready to implement)	++
2- Decrease non-specialized graduates' number	Apply post graduate training (general and special training and competencies; ready to implement)	Collaborate with the MOPH to have the appropriate legal framework Implement in collaboration with stakeholders	+++
	Improve colloquium examination	Collaborate with universities and MEHE	++
	Push for laws to decrease graduates numbers (numerus clausus)	Collaborate with Parliamentary commission for education (change the existing text)	+++
3- Improve community practice	Improve the pricing process to include services	Negotiate fees with the MOPH	+++
	Apply GPP standards for the community to prove the pharmacists' worth	Collaborate with the MOPH to form a Quality and Accreditation committee	++
4- Improve patient health and services	Implement patient profile related to medications	Collaborate with insurance and NSSF	+++
	Implement medication safety project	Collaborate with MOPH through the Pharmacovigilance and PHC programs	++
	Promote the public health aspect of pharmacy		
5-Improve medications quality and supply	Implement medication shortage platform	Collaborate with MOPH	++
	Guarantee the generics quality	Collaborate with the industry and MOPH to classify generics and improve their quality	+++
	Promote multi-sectorial collaboration	Collaborate with national and international industries and other institutions	+
6- Promote the OPL status and expand the pharmacist role	Promote the OPL image on the national and international levels	Collaboration with other healthcare professional orders, organizations and relevant ministries	++
	Expand the pharmacist role (Nine Star Pharmacist) in all sectors	Clinical pharmacy implementation (changing the text of the law within parliament)	+++
		Promote new CE/CPD activities	

MOPH: Ministry of Public Health; MEHE: Ministry of Education and Higher Education; GPP: Good Pharmacy Practice; NSSF: National Security and Social Funds; CE/CPD: Continuing Education / Continuing Professional Development; OPL: Order of Pharmacists of Lebanon; PHC: Primary Health Care

vaccination, medication safety, and prescribing medications for specific minor ailments. Enhance education and certification to ensure that community pharmacist conduct these roles and provide to a high quality.

- Take into consideration critical issues in health, such as the distribution of chronic versus infectious diseases in Lebanon and mother and baby health problems. Specific certificates can be delivered in collaboration with the OPL, academia and the MOPH for:
 - special populations, such as pediatrics, geriatrics, cancer patients and mothers
 - special types of diseases such as infectious diseases and decrease in antibiotic resistance, chronic diseases management (prevention, management, and medication adherence)
 - specific medication related issues such as medication reconciliation, medication errors, side effects
- Take into account the epidemiological transition in Lebanon: aging of the population, and its associated increase in comorbidities and polypharmacy related problems. Management would be facilitated by the implementation of the previously suggested patient profile, linking community pharmacies and third-party payers, and helping the pharmacist in the management of complex cases.

- Include and elaborate the public health aspect of the profession in the undergraduate, graduate, and continuous education of pharmacists: focus on hygiene, breastfeeding, vaccines, smoking cessation, healthy diet, physical activity and other preventive measures. In addition, medication-related correct use (decreasing errors, misuse, or abuse), adherence, safety and interactions issues, and disposal processes are important points to tackle. Specific postgraduate and continuing education programs can be tailored to this aspect of the profession.

In conclusion, adopting the blueprint suggested in this paper is necessary, because the profession is unfortunately condemned to disappear in the current political and health Lebanese context. The potential opportunity for pharmacists to actively collaborate with local and international authorities, promoting patients' health as a core stakeholder of the MOPH PHC program, provides an opportunity for a better future.

CONFLICT OF INTEREST

None.

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