

Navigating Lebanon's Economic Crisis:  
**Challenges, Opportunities,  
and Strategic Solutions for  
the Pharmaceutical Sector**

Rasha Hamra

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This policy paper is supported by the Friedrich Naumann Foundation Beirut Office. The opinions expressed in this brief do not necessarily reflect those of the donor.

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# Navigating Lebanon's Economic Crisis: **Challenges, Opportunities, and Strategic Solutions for the Pharmaceutical Sector**

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## Executive Summary

The economic crisis in Lebanon, which began in 2019, has severely impacted the healthcare and pharmaceutical sectors, exposing critical challenges in medication supply, financial sustainability, and regulatory frameworks. Lebanon's reliance on imported medications has been disrupted by the collapse of the banking sector and currency depreciation, reducing imports and opening opportunities for local manufacturing, though this is limited by scarce resources and capacity.

Political instability and the removal of subsidies have exacerbated medication access, driving up out-of-pocket healthcare costs and leaving much of the population dependent on the Ministry of Public Health (MoPH), which now operates with a significantly reduced budget. Medication shortages, price increases, and the growing risk of counterfeit drugs due to limited oversight have left patients adjusting treatments due to financial constraints.

Key structural issues, including the reliance on costly imports and inadequate regulatory systems, further hinder the pharmaceutical sector. To address these issues, a multi-tiered approach is required. Short-term solutions focus on implementing existing regulations and cost-control measures, centralizing drug procurement, enhancing regulatory frameworks, and accelerating digitalization. Strengthening primary care systems and improving policy dissemination are also essential.

Medium-term strategies emphasize supporting local manufacturing, encouraging multinational companies to invest in Lebanon, and joining the Pharmaceutical Inspection Co-operation Scheme (PIC/S) to align with international standards. Collaborating with the Lebanese diaspora and international organizations, expanding R&D, and fostering public-private partnerships will also be crucial for improving access to medicines.

Long-term strategies include establishing a fully operational Lebanese Drug Authority (LDA) to oversee pharmaceutical standards, modernizing systems like the Central Lab, and implementing digital prescription systems to improve quality control. Developing a Health Technology Assessment (HTA) system for resource allocation, workforce education in pharmaco-economic, pharmacovigilance, and health technology assessment, and creating more career opportunities for pharmacy graduates, will strengthen Lebanon's pharmaceutical sector. Additionally, introducing sin taxes on harmful substances like cigarettes

and sugary drinks could provide revenue for the healthcare system, although legal issues surrounding fund allocation need to be addressed.

In conclusion, Lebanon's healthcare and pharmaceutical sectors require urgent reforms to ensure affordability, availability, and quality of medications. Immediate actions, supported by strong governance, international collaboration, and sustainable funding, will help Lebanon navigate its current challenges and build a more resilient and sustainable healthcare system for the future.

## **Introduction**

The economic crisis that has impacted Lebanon since 2019 has had profound effects across all sectors, notably the healthcare and pharmaceutical sectors. The pharmaceutical sector, in particular, experienced disruptions across the entire medication supply chain, including importation, distribution, local production, regulatory oversight, and drug utilization. Before the onset of Lebanon's financial and economic crisis in 2019, the pharmaceutical industry was valued at over \$1 billion, a significant share of the national economy and a key player in the public health system.

The pharmaceutical market in Lebanon was dominated by imported medications that accounted for approximately 90% of the market. However, the financial crisis dramatically altered the landscape, affecting every aspect of the industry. The collapse of the banking system, the depreciation of the Lebanese pound, and a range of socio-political disruptions led to a marked decline in the import of pharmaceuticals, pushing local manufacturers to step in. Lebanese pharmaceutical manufacturers, historically small players in the market, rapidly expanded to fill the gap left by reduced imports. This was driven by necessity, as foreign currency shortages severely limited the country's ability to procure medication from abroad.

A closed expert roundtable was convened by the Lebanese Center for Policy Studies (LCPS) to analyze the impact of the consecutive shocks and crises that have affected Lebanon's pharmaceutical sector over the past five years. The discussion focused on the challenges hindering reforms, potential opportunities, and strategies for the future. The roundtable brought together a diverse group of experts from the pharmaceutical sector, representing the public and private sectors, academia, professional orders, and syndicates. Stakeholders

examined the barriers to reform within the pharmaceutical system and proposed key solutions and recommendations to drive change. This policy brief draws on the insights gathered from the policy dialogue.

## Consecutive Shocks

Since 2019, Lebanon has been confronted with a series of severe shocks and crises that have compounded the challenges facing its pharmaceutical and healthcare sectors. One of the foremost issues is the ongoing Syrian refugee crisis, which has placed Lebanon under immense strain as it continues to host the largest number of refugees per capita.<sup>1</sup> This influx has overburdened an already limited healthcare infrastructure. The situation was further exacerbated by the economic crisis that began in October 2019, which triggered widespread unemployment, increased poverty, and caused a sharp depreciation of the Lebanese pound. As a result, the population's purchasing power plummeted, severely affecting access to medications and healthcare services.

The COVID-19 pandemic worsened these conditions, as Lebanon's fragile healthcare system struggled to manage the outbreak. Hospitals became overwhelmed with cases, while essential medications and medical supplies became scarce. Amid this health crisis, Lebanon experienced yet another catastrophe with the Beirut port explosion in August 2020. The blast devastated large portions of the city, including healthcare facilities and medical storage units, further crippling the healthcare system and disrupting the pharmaceutical supply chain.

The World Bank's 2021 report placed Lebanon's financial collapse among the most severe global crises of the last 150 years,<sup>2</sup> a situation made worse by the Lebanese government's gradual removal of subsidies on critical commodities such as fuel and medications. The removal of subsidies intensified the public's difficulties in accessing healthcare services, as basic medical supplies became unaffordable for a significant portion of the population.

In July 2022, Lebanon was officially reclassified by the World Bank as a lower-middle-income country, a stark decline after spending 25 years as a higher-middle-income nation.<sup>3</sup> This reclassification reflected the deepening magnitude of Lebanon's economic downturn. The political instability has only worsened the situation. Since October 2022, Lebanon has been governed by a caretaker government, which

<sup>1</sup> UNHCR- LEBANON - NEEDS AT A GLANCE – 2024. [www.unhcr.org/lb/wp-content/uploads/sites/16/2024/03/At-a-glance-2024.pdf](http://www.unhcr.org/lb/wp-content/uploads/sites/16/2024/03/At-a-glance-2024.pdf)

<sup>2</sup> World Bank. Lebanon Poverty and Equity Assessment 2024 - Weathering a Protracted Crisis. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099052224104516741/p1766511325da10a71ab6b1ae97816dd20c>

<sup>3</sup> New World Bank country classifications by income level: 2022-2023. <https://blogs.worldbank.org/en/opendata/new-world-bank-country-classifications-income-level-2022-2023>

has been largely unable to implement essential reforms due to political deadlock. This paralysis has stymied any effective response to the economic, healthcare, and pharmaceutical crises, leaving the country in a precarious position.

## Impact of the Crises on Health Coverage

Before the economic collapse, roughly 50% of Lebanon's population had some form of health coverage through public health funds like the National Social Security Fund (NSSF), Civil Servants Cooperative (CSC), or the armed forces. The remaining 50% either relied on private insurance or the Ministry of Public Health (MoPH). However, as the crisis deepened, this dynamic shifted dramatically.

Today, over 70% of the population relies on MoPH for their healthcare needs, a sharp increase from 50% before the crisis. The MoPH's budget, however, has not kept pace with this increased demand. In fact, the Ministry's budget has fallen from over \$486 million in 2018 to less than \$37 million in 2022,<sup>4</sup> leading to a dramatic reduction in available resources. As a result, out-of-pocket payments for healthcare have surged, increasing from 33% to over 85%.<sup>5</sup> More than 80% of Lebanon's elderly population now lacks health insurance, leaving them highly vulnerable to medical and financial insecurity.<sup>6</sup>

## Impact of the Crises on the Pharmaceutical Sector

The economic crises in Lebanon have had a profound and far-reaching impact on the pharmaceutical sector, affecting various dimensions of healthcare delivery, medication affordability, and the overall well-being of the population.

### Affordability of Medications

One of the most immediate and visible effects of the economic downturn has been the dramatic increase in the cost of medications. With the collapse of the Lebanese pound, medicines that were once within reach for the average citizen have become prohibitively expensive. Out of 5,500 registered medications in Lebanon, only 129 remain partially subsidized by the central bank,<sup>7</sup> making it increasingly difficult for the general population to access essential

<sup>4</sup> National Health Sector Strategy 2023-Vision 2030-Executive Summary. <https://www.moph.gov.lb/en/view/67044/lebanon-national-health-strategy-vision-2030>

<sup>5</sup> LCPS-Policy Brief. Fadi El-Jardali, Reem Masri, Zeina Sleem, 2023. Lebanon's Economic Crisis by Sector: Reforming the Healthcare System. <https://api.lcps-lebanon.org/content/uploads/files/Policy-Brief-77-eng.pdf>

<sup>6</sup> ACAPS- LEBANON-The Effect of the Socioeconomic Crisis on Healthcare - Thematic Report, 2023. [www.acaps.org/fileadmin/Data\\_Product/Main\\_media/20231019\\_ACAPS\\_thematic\\_report\\_Lebanon\\_effect\\_of\\_socioeconomic\\_crisis\\_on\\_healthcare.pdf](http://www.acaps.org/fileadmin/Data_Product/Main_media/20231019_ACAPS_thematic_report_Lebanon_effect_of_socioeconomic_crisis_on_healthcare.pdf).

<sup>7</sup> MoPH, Drugs Selling Price List, June 2024. [www.moph.gov.lb/en/Pages/3/3101/drugs-public-price-list](http://www.moph.gov.lb/en/Pages/3/3101/drugs-public-price-list)

<sup>8</sup>  
Economic unrest results in an average pharmaceutical price trend of 1,123% in Lebanon. GlobalData, 2022. [www.pharmaceutical-technology.com/pricing-and-market-access/pharmaceutical-prices-lebanon/](http://www.pharmaceutical-technology.com/pricing-and-market-access/pharmaceutical-prices-lebanon/)

drugs. This financial burden is exacerbated by the fact that between 2018 and 2022, the average cost of medications surged by over 1,100%,<sup>8</sup> due to the depreciation of the Lebanese currency, with life-saving treatments for conditions such as cancer and multiple sclerosis experiencing some of the steepest price hikes. The escalating costs have left a large portion of the population unable to afford necessary treatments, placing their health and lives at serious risk.

### Availability of Medications

In addition to soaring prices, the crisis has led to severe shortages of essential medications. Since 2021, Lebanon has faced critical deficits in its supply of drugs for chronic and life-threatening conditions. The scarcity is largely due to a lack of foreign currency, which has severely hampered importers' ability to procure necessary medications. By mid-2022, Lebanese importers owed over \$400 million to international pharmaceutical companies,<sup>9</sup> further straining the already weakened supply chains. Even basic over-the-counter drugs, such as painkillers, are increasingly unavailable, and pharmacies frequently report widespread shortages. This unavailability has had a detrimental effect on the treatment of numerous chronic diseases, exacerbating public health challenges.

<sup>9</sup>  
Jaber Chehayeb R, Kala S, Abou Ghannam H, Hasan G, Salloum J (2023) The evolving Lebanese drug crisis: Trends in drug availability and affordability for common outpatient diseases from 2019 to 2023. *PLoS Glob Public Health* 3(11): e0002538. <https://doi.org/10.1371/journal.pgph.0002538>.

### Quality of Medications

As the crisis deepens, many patients have resorted to seeking medications through informal channels or relying on imports from abroad. However, these alternatives come with significant risks concerning the quality and safety of the drugs. Lebanon's pharmaceutical quality control capacity is limited, with most quality assurance testing conducted outside the country, as Lebanon lacks a centralized laboratory dedicated to drug testing. This has resulted in an influx of counterfeit or substandard medications entering the market, threatening the health and safety of patients who are already vulnerable. The limited capacity for implementation of current regulations and oversight has contributed to this challenge, creating growing concerns among patients regarding the reliability of the medications they depend on.

### Health-Seeking Behavior

The economic crisis has also altered the health-seeking behavior of



many Lebanese citizens, particularly those with chronic conditions. A 2022 study revealed that a significant number of patients have been forced to adjust or abandon their medication regimens due to financial constraints. Many individuals now skip doses or turn to alternative therapies, which are often less effective or unsafe. This disruption in treatment has led to preventable health complications, further straining Lebanon's already fragile healthcare system.<sup>10</sup> In response, non-governmental organizations (NGOs) have stepped in to fill medication gaps, but the quality and safety of these donated medicines are not always assured, compounding the risks faced by patients.

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International Trade Association. Lebanon-Country Commercial Guide, June 2024. [www.trade.gov/country-commercial-guides/lebanon-pharmaceuticals](http://www.trade.gov/country-commercial-guides/lebanon-pharmaceuticals)

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Syndicate of the Pharmaceutical Industries in Lebanon (SPIIL) 2024. Information shared upon request.

### Reliance on Humanitarian Aid

As importing medications becomes increasingly difficult, Lebanon has become heavily reliant on humanitarian aid to meet its pharmaceutical needs.<sup>11</sup> While this aid provides a temporary lifeline, it is not a sustainable solution for addressing the country's long-term healthcare challenges. Logistic hurdles, delays in distribution, and the limited scope of aid support often prevent patients from accessing the medications they need in a timely manner. The reliance on aid underscores the fragility of Lebanon's pharmaceutical sector, highlighting the urgent need for systemic reforms to ensure sustainable access to essential medications.

### Pharmaceutical Human Resources

The crisis has also had a severe impact on the pharmaceutical workforce in Lebanon. A 2020-2021 study found that 41% of community pharmacists intended to leave their jobs within the next 12 months, and 85% were considering leaving the country altogether.<sup>12</sup> This exodus of skilled professionals has been mirrored by the closure of hundreds of pharmacies. Reports from 2021-2022 indicate that 700 pharmacies have shut down, while 60% of scientific offices of international pharmaceutical companies have closed, leading to the loss of over 2,000 jobs.<sup>13</sup>

On the other hand, Lebanon's local pharmaceutical industries have seen a 22% increase in employment, driven by a growing reliance on domestic production.<sup>14</sup> This trend reflects the sector's attempt to adapt to the crisis, though it cannot fully compensate for the overall loss of human resources and expertise.

The economic crisis in Lebanon has had a devastating impact on the pharmaceutical sector, affecting everything from the affordability and availability of medications to the quality of drugs and the health-seeking behavior of patients. The exodus of pharmaceutical professionals and the growing dependence on humanitarian aid further complicate the situation, leaving the healthcare system in a precarious state. Without substantial reform and international support, the outlook for Lebanon's pharmaceutical sector remains bleak, with dire consequences for public health.

## Windows of Opportunity

Despite the numerous challenges faced by Lebanon's pharmaceutical and healthcare sectors, there are several promising opportunities for improvement, particularly in local manufacturing. The economic crisis has underscored the crucial role of Lebanon's domestic pharmaceutical industry. The market share of local manufacturers has grown impressively, rising from just 10% in 2018 to a notable 30% in 2024. This growth is particularly significant given that locally produced medications are generally 40% cheaper than their imported counterparts, and about 10% less expensive than generics.<sup>15</sup> This cost advantage makes local products a vital source of affordable medication in the current economic climate. With adequate support and investment, Lebanon's local pharmaceutical sector could become even more pivotal, reducing the country's heavy dependence on imported drugs and enhancing the overall accessibility of medications.

Another key opportunity lies in the expansion of the generics market. As of 2022, generics accounted for 24% of the market share in Lebanon, reflecting a notable increase.<sup>16</sup> This segment of the market holds considerable promise for further growth, particularly with the implementation of supportive policies. By fostering the use of generics, Lebanon could align more closely with the levels seen in Europe and North America. Expanding the generics market would not only decrease medication costs for patients but also alleviate financial pressures on the healthcare system, thereby making medications more accessible to a broader segment of the population. Strengthening local manufacturing and expanding the generics market could significantly improve the affordability and accessibility of medications, providing a pathway towards a more resilient and self-sufficient healthcare system.

<sup>15</sup> Syndicate of the Pharmaceutical Industries in Lebanon (SPIL) 2024. Information shared upon request.

<sup>16</sup> GlobalData. Pharma: Pharmaceutical Prices (POLI) Database. GlobalData's Price Intelligence (POLI) database-2022. /www.globaldata.com/marketplace/dataset/pharmaceutical-prices-poli-database/

## Challenges and Barriers Facing Pharmaceutical Sector Reform

The challenges facing Lebanon's pharmaceutical sector highlight long-standing structural deficiencies that became clearly apparent during the crisis. For years, there has been a neglect of investing in local manufacturing and production, leading to an over-reliance on imported drugs. Additionally, inadequate investment in quality control and assurance systems has compromised regulatory effectiveness. The lack of robust monitoring, evaluation, and accountability frameworks has exacerbated these issues. Regulatory gaps, such as insufficient oversight of physician-pharma interactions and inadequate policies for promoting rational prescribing, have also contributed to the problem. These systemic issues have led to a high dependence on expensive brand-name medications with limited use of generic alternatives.

Despite having strategies and policies like the Unified Medical Prescription and the Pharmaceutical Strategy developed in 2022, their implementation remains a major challenge. For instance, the Unified Medical Prescription, aimed at reducing drug costs and promoting the use of generics, has not been fully implemented since its introduction in 2016. Similarly, the code of ethics for drug promotion have yet to be operationalized fully, reflecting a broader problem with policy implementation in Lebanon. Effective policy implementation requires addressing several factors beyond mere formulation and dissemination. These include political and economic context, leadership, stakeholder involvement, planning, resource mobilization, and monitoring and evaluation. Unfortunately, Lebanon often falls short in these areas, focusing primarily on the initial stages of policy development without ensuring implementation.

Another critical issue is the lack of integration between the pharmaceutical strategy and the broader national health strategy. The absence of synergy between these strategies has impeded effective policy implementation. Integrating the pharmaceutical sector into the national health strategy is crucial, particularly in light of the push for Universal Health Coverage (UHC). Achieving UHC requires not only universal access to healthcare but also access to quality medications, making a robust pharmaceutical sector integral to UHC's success. Coordination among various ministries and agencies is also essential. For example, the Ministry of Finance plays a significant

role in financing and developing long-term funding strategies. Stronger collaboration between ministries is necessary to address the multifaceted challenges within the pharmaceutical sector.

Despite the introduction of the Law on Drug Administration (LDA) in 2023, its implementation remains largely ineffective. The anticipated benefits of the LDA have not materialized, leaving the regulatory framework underperforming. Furthermore, the absence of drug quality labs severely hampers the ability to ensure drug safety.

The drug market suffers from a severe lack of regular inspection due to a shortage in human resources at the MoPH, with reports that medications are being smuggled. This lack of oversight poses serious risks to drug safety. There is an urgent need for stringent regulation and control to address these safety concerns. The human resources crisis further exacerbates the problem. Many pharmacists and healthcare professionals have left the country due to low wages and poor working conditions, leading to a shortage of skilled professionals. This brain drain has weakened the pharmaceutical sector and impaired the ability to maintain high standards of care.

Historically, Lebanon was a regional leader in providing access to advanced therapies and clinical trials. However, the ongoing economic crisis has drastically reduced access to these treatments. The closure of scientific offices of international pharmaceutical companies and the suspension of clinical trials have left patients without access to innovative therapies. Lebanon's previous advantage in receiving advanced treatments first has diminished, possibly due to the country's shift from an upper-middle-income to a lower-middle-income status, affecting international companies' willingness to supply Lebanon with advanced treatments.

Regarding challenges within hospitals, several issues need to be addressed. Access and availability of essential medications, especially for cancer treatments, are problematic. Subsidized drugs are often unavailable, leading to disruptions in patient care. Patients are experiencing delays in their treatments, receiving medication every three months instead of every three weeks, which impacts treatment effectiveness and quality of care. Financial challenges include liquidity issues and delays in reimbursement from third-party payers, leading hospitals to bear the financial burden. The removal of preparation fees for medications has further strained hospital finances, and insurance

companies are reducing tariffs, compounding the financial challenges faced by hospitals.

The MediTrack system is a project that was initiated by the MoPH since 2017, with the aim of implementing the 2D Matrix Barcode on all medicines to track and trace all registered or intended to be registered pharmaceuticals in Lebanon by all pharmaceutical institutions and pharmaceutical factories duly registered in MoPH and which intends to manufacture or import medicines. A newly added component of this project is to track and trace subsidized cancer medications in the supply chain, from the point of import to the final beneficiary (patient) passing through hospitals.<sup>17</sup> This project is a positive development, but it is hampered by slow implementation due to a shortage of human resources in hospitals. Issues with the availability of medications listed on MediTrack cause patients to seek medications elsewhere at their own expense.

Financial constraints also contribute significantly to the challenges facing the pharmaceutical sector and access to medications. The National Social Security Fund (NSSF), a critical pillar of the healthcare system, is struggling with severe financial issues, and addressing these issues is critical for improving the healthcare system.

Challenges facing the local manufacturers include complexity of regulatory processes which can delay drug approval. Additionally, the lack of financial incentives, such as tax breaks and subsidies, limits the capacity of companies to invest in research and development (R&D). There is also limited investment in R&D, with insufficient public-private partnerships and technology transfer programs, which constrains local innovation. Local manufacturers struggle to access affordable raw materials, while maintaining consistent quality control systems to meet international standards is a persistent challenge.

Limited market access poses additional hurdles, with local companies facing difficulties in expanding regionally or internationally due to weak export capacity and an absence of preferential procurement policies. The lack of financial support in the form of venture capital, low-interest loans, and risk mitigation measures limits investment in the sector. Finally, low public awareness of the value of locally produced pharmaceuticals and poor health literacy contribute to weak demand for local medicines, further constraining growth. These challenges collectively inhibit the

<sup>17</sup> Ministry of Public Health- MediTrack Project. [www.moph.gov.lb/en/Pages/6/15089/meditrack-pharmaceuticals-2d-barcode-project](http://www.moph.gov.lb/en/Pages/6/15089/meditrack-pharmaceuticals-2d-barcode-project)

development of local pharmaceutical industries, making it difficult to achieve sustainable growth and local self-sufficiency.

Reforming the pharmaceutical sector in Lebanon necessitates robust leadership, effective governance, and a focus on patient well-being. It is essential to prioritize the implementation of the LDA, establish necessary laboratories, ensure stringent drug regulation, and develop strategic funding mechanisms. Only with decisive action and a clear strategic plan can Lebanon hope to restore its position as a leader in pharmaceutical care and improve access to essential medications for all.

## **Potential Strategies, Solutions, and Recommendations**

To address the challenges facing Lebanon's healthcare and pharmaceutical sectors, a range of strategies and solutions can be implemented across the short, medium, and long terms to support both immediate and sustained reforms. The recommendations below are categorized based on their anticipated impact: 1) those with immediate effect, which focus on the implementation of existing regulations, 2) medium-term actions, which require funding and the development of additional regulations, and 3) long-term measures that demand strong political will and access to sustainable funding.

### **Short-Term Recommendations**

#### **Improve Health Sector Reforms**

Health sector reforms must align with international standards by reviewing and harmonizing healthcare policies with global best practices.

#### **Reform and Optimize Prescription and Reimbursement Systems**

Reforming prescription and reimbursement systems is essential to controlling healthcare costs. Implementing the unified prescription forms that include generic drug options can enhance transparency and cost control. Public funds should negotiate drug prices, especially for high-cost medications such as cancer treatments, to reduce expenses for patients. Additionally, incorporating pharmacoeconomic studies into the drug registration process can assess the cost-effectiveness of new medications and their impact on healthcare outcomes.

**Rationalize Pharmaceutical Prescribing Practices**

Reinforcing generic drug prescriptions by updating regulations to promote the use of generic medications by default, with any exceptions requiring explicit justification. Adjust incentives for both physicians and pharmacists to encourage the use of generics. Pharmacists should be empowered to recommend cost-effective alternatives, and physicians should be required to justify non-generic prescriptions. Improving prescription guidelines by educating healthcare professionals about the benefits and procedures for prescribing generics and enforcing compliance through regular monitoring is another step towards rationalization of drug use.

**Enhance and Centralize Drug Procurement**

Establishing a centralized drug procurement system among the various public funds to reduce costs and improve efficiency is highly needed and concrete steps have already started under the leadership of MoPH. This centralization should start with implementing joint procurement systems to negotiate better pricing and ensure the consistent availability of essential medicines. Additionally, promoting cost-effective practices that reduce the overall drug bill and enhance the efficiency of medication procurement through strategic public procurement policies.

**Strengthen Pharmacovigilance System**

Investments in the already established pharmacovigilance center is essential to maintaining the quality and safety of medications. Strengthening this robust regulatory framework that monitors the adverse effects of drugs and ensures prompt recalls of faulty products will help rebuild trust in the system.

**Regulate and Monitor Pharma Interactions**

Implement the code of ethics for drugs promotion that govern interactions between physicians, pharmacists, and pharmaceutical companies. Establish clear guidelines to prevent conflicts of interest and undue influence on prescribing practices. Promoting effective communication by addressing physician and pharmacist interactions is vital for effective collaboration, which can improve medication management and patient outcomes. Efforts should be made to enhance these interactions through training and communication platforms

that facilitate better information exchange between healthcare professionals.

### **Strengthen Regulatory and Legal Frameworks**

Upgrading regulatory and legal frameworks, particularly by improving Good Manufacturing Practices (GMP) to meet international standards, will ensure the quality of locally produced medications. Lebanon can seek international support for this process by requesting technical assistance and funding from global partners.

### **Optimize and Rationalize Medication Imports**

Streamline import regulations by reviewing and revising bilateral agreements to enforce reciprocity and rationalize the number of brands per molecule. Limit the number of imported brands to optimize the use of foreign currency and reduce market saturation. Priority importation should be given to innovative treatments and life-saving medications.

### **Disseminate Policies Effectively**

Improve communication and dissemination of existing policies and regulations to all stakeholders, including healthcare providers, pharmacists, and patients. Conduct education campaigns to increase awareness and compliance.

### **Accelerate and Optimize Digitalization Efforts**

Optimizing digitalization efforts is another important step. Investment in integrated digital platforms can help manage prescriptions, track medication usage, and reduce abuse, while standardizing these systems across healthcare providers and pharmacies. Healthcare workers need to be trained on these new digital tools to enhance their effectiveness and ensure a smooth transition during implementation.

### **Strengthen and Enhance Primary Care Systems**

One key area is the enhancement of primary care systems, which includes developing sustainable funding strategies beyond reliance on NGOs to ensure the long-term viability of primary care centers. Establishing catchment areas is also crucial for managing patient distribution and controlling medication allocation effectively.



### Medium-Term Recommendations

#### **Boost and Strengthen Local Pharmaceutical Industry**

Strengthening the local pharmaceutical industry requires both vertical and horizontal expansion, supported by protective regulations and incentives for local investment. Promoting local manufacturing and encouraging multinational companies to expand manufacturing and packaging operations in Lebanon can help reduce drug costs and ensure a stable supply of essential medications and self-sufficiency.

#### **Join and Integrate the Pharmaceutical Inspection Co-operation Scheme (PIC/S)**

MoPH and the Lebanese government should prioritize joining PIC/S, which includes around 58 countries. Membership will provide Lebanon with access to a robust network, support for capabilities development, workforce skills enhancement, and regulatory framework improvements. Utilizing the PIC/S membership will support Lebanese pharmaceutical exports and strengthen the local industry's competitive edge by aligning with international standards.

#### **Enhance Exports and Increase Competitiveness**

Developing export strategies to promote locally manufactured pharmaceuticals will help increase foreign currency inflows and enhance the sector's competitiveness. Engaging with the Lebanese diaspora can further leverage global networks and expertise to advance the industry.

#### **Strengthen Collaboration with the Lebanese Diaspora**

Leveraging global networks through engagement with the Lebanese diaspora to tap into their international connections and expertise for advancing the local pharmaceutical and healthcare sectors.

#### **Enhance Collaboration with International and Regional Organizations**

Building partnerships for technical support through collaboration with international and regional organizations can enhance technical expertise, improve access to medications, and strengthen local manufacturing capacities. Additionally, encouraging multinational investment is essential; creating incentives for multinational pharmaceutical companies to maintain and expand their presence

in Lebanon can support the local industry. This approach would not only facilitate technology transfer but also stimulate job creation and contribute to economic resilience within Lebanon's healthcare sector.

### **Foster and Support Innovative Solutions**

Foster collaboration between Lebanese authorities and international pharmaceutical companies to drive access to innovation and research projects.

### **Strengthen and Expand Research and Development (R&D)**

Investments in research and development (R&D) should be encouraged through public-private partnerships to drive innovation and improve the production and access of high-quality, effective medicines. There is a need to create a clear, national strategic plan for pharmaceutical research, focusing on addressing local healthcare needs and enhancing the country's research capabilities.

### **Long-Term Recommendations**

#### **Establish the Lebanese Drug Authority**

The activation of the Local Drug Authority (LDA) is crucial for effective regulatory oversight and enforcement of pharmaceutical standards. This involves ensuring that the LDA is fully operational, with clear mandates and resources to oversee drug safety, quality control, and compliance with regulations.

#### **Reactivate and Modernize Key Systems**

To reactivate and update key systems, it is crucial to revise and reinstate the Central Lab to conduct thorough analyses of all imported and locally produced pharmaceutical batches. In cases of financial constraints, an independent lab should be appointed as a temporary solution until the Central Lab becomes fully operational. Additionally, strengthening the Ministry of Public Health's regulatory capacity is essential to ensure consistent quality control and assurance for both locally manufactured and imported medications, with regular audits and inspections to uphold high standards. Modernizing and digitalizing the unified medical prescription system will enhance functionality and reduce misuse by establishing a digital platform for effective monitoring and management of prescription data. Furthermore, implementing transparent drug verification mechanisms

is necessary to authenticate drugs and prevent counterfeit products from entering the market.

### **Establish a National HTA Framework**

Developing a national (Health Technology Assessment) HTA system to provide evidence-based assessments of medicines and optimize resource allocation is a critical step. The HTA should be integrated within the MoPH or as an independent body to evaluate the cost-effectiveness of high-cost drugs, such as oncology medications. Ensure that the HTA system includes assessments for medical devices and supplies, as well as pharmaceuticals.

### **Enhance Workforce Education and Development**

Enhancing pharmacy education to include specialized training in areas such as pharmacoeconomic, pharmacovigilance, and health technology assessment is crucial to aligning educational programs with market needs and emerging healthcare challenges. Additionally, it is important to ensure the effective implementation of continuing education laws for pharmacists and other healthcare professionals. Collaborations with pharmaceutical companies and local industries can provide targeted, needs-based professional development opportunities. To address the shortage of specialized professionals in the healthcare sector, a comprehensive plan should be developed that includes strategies for recruitment, training, and retention of talent, ultimately meeting the demands of the evolving healthcare and pharmaceutical landscape.

### **Create and Expand Career Opportunities**

Create job opportunities for new pharmacy graduates by collaborating with the MoPH and the order of pharmacists to develop regulatory frameworks that promote the hiring of pharmacists in various healthcare settings.

### **Introduce Sin Taxation**

Introducing a tax on harmful substances like cigarettes, alcohol, and sugary drinks could generate much-needed revenue for the healthcare system. This would not only provide funds to subsidize medications, but also promote healthier lifestyles. However, the challenge lies in earmarking tax revenue specifically for the health

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Abou Samra, C, Assal, M, El-Jardali, F, K2P Policy Brief: Financing Universal Health Coverage in Lebanon through Health Taxes. Knowledge to Policy (K2P) Center. Beirut, Lebanon; August 1, 2023. [www.aub.edu.lb/k2p/Documents/K2PPolicyBrief\\_HealthTax\\_August12023.pdf](http://www.aub.edu.lb/k2p/Documents/K2PPolicyBrief_HealthTax_August12023.pdf).

sector, as earmarked taxes face legal obstacles. The Lebanese constitution's Article 81 prohibits earmarking revenues, and public accounting laws articles 51 and 52 view it as hindering equitable resource distribution.<sup>18</sup>

In conclusion, Lebanon's healthcare and pharmaceutical sectors are in dire need of reform, particularly in light of the compounded crises that have impacted the country since 2019. Addressing the affordability, availability, and quality of medications will require immediate action and a coordinated effort from both public and private sector stakeholders. Local pharmaceutical production, stronger regulatory frameworks, maintaining the presence of international pharmaceutical companies and innovative digital health solutions offer promising avenues for sustainable reform. By strengthening governance, encouraging international collaboration, and building a more resilient healthcare system, Lebanon can not only navigate its current challenges but also secure a healthier future for its citizens.

Economic reforms that ensure financing and sustainable funding remains the key to all suggested pharmaceutical reform efforts and solutions. An effective approach to such reforms should focus on strategies that stimulate growth without placing additional costs on individuals. Encouraging further investment, strengthening regulatory frameworks, and providing incentives to local manufacturers can better support economic resilience and development. These strategies would contribute to sustainable sector reforms while minimizing the financial burdens on the population.



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