PRIMARY HEALTH CARE SYSTEMS (PRIMASYS)

Comprehensive case study from Lebanon
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# Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPHRP</td>
<td>Emergency Primary Healthcare Restoration Project</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
</tr>
<tr>
<td>IT</td>
<td>information technology</td>
</tr>
<tr>
<td>K2P</td>
<td>Knowledge to Policy</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
</tr>
<tr>
<td>NCD</td>
<td>noncommunicable disease</td>
</tr>
<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
</tr>
<tr>
<td>PHC</td>
<td>primary health care</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Goal</td>
</tr>
<tr>
<td>SPARK</td>
<td>Center for Systematic Reviews on Health Policy and Systems Research</td>
</tr>
<tr>
<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>YMCA</td>
<td>Young Men’s Christian Association</td>
</tr>
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</table>
Background to PRIMASYS case studies

Health systems around the globe still fall short of providing accessible, good-quality, comprehensive and integrated care. As the global health community is setting ambitious goals of universal health coverage and health equity in line with the 2030 Agenda for Sustainable Development, there is increasing interest in access to and utilization of primary health care in low- and middle-income countries. A wide array of stakeholders, including development agencies, global health funders, policy planners and health system decision-makers, require a better understanding of primary health care systems in order to plan and support complex health system interventions. There is thus a need to fill the knowledge gaps concerning strategic information on front-line primary health care systems at national and subnational levels in low- and middle-income settings.

The Alliance for Health Policy and Systems Research, in collaboration with the Bill & Melinda Gates Foundation, is developing a set of 20 case studies of primary health care systems in selected low- and middle-income countries as part of an initiative entitled Primary Care Systems Profiles and Performance (PRIMASYS). PRIMASYS aims to advance the science of primary health care in low- and middle-income countries in order to support efforts to strengthen primary health care systems and improve the implementation, effectiveness and efficiency of primary health care interventions worldwide. The PRIMASYS case studies cover key aspects of primary health care systems, including policy development and implementation, financing, integration of primary health care into comprehensive health systems, scope, quality and coverage of care, governance and organization, and monitoring and evaluation of system performance.

The Alliance has developed full and abridged versions of the 20 PRIMASYS case studies. The abridged version provides an overview of the primary health care system, tailored to a primary audience of policy-makers and global health stakeholders interested in understanding the key entry points to strengthen primary health care systems. The comprehensive case study provides an in-depth assessment of the system for an audience of researchers and stakeholders who wish to gain deeper insight into the determinants and performance of primary health care systems in selected low- and middle-income countries. Furthermore, the case studies will serve as the basis for a multicountry analysis of primary health care systems, focusing on the implementation of policies and programmes, and the barriers to and facilitators of primary health care system reform. Evidence from the case studies and the multi-country analysis will in turn provide strategic evidence to enhance the performance and responsiveness of primary health care systems in low- and middle-income countries.
1. Methodology

This case study utilized a mix of quantitative and qualitative research designs. The quantitative component consisted of a documentation review, while the qualitative component consisted of semi-structured interviews with key stakeholders. The study was approved by the Institutional Review Board at the American University of Beirut.

1.1 Documentation review

A review was undertaken of research papers, reports, policy documents, and key legislative acts relevant to primary health care (PHC) in Lebanon. Documents were obtained from a systematic search of the literature and from key stakeholders, and Medline and PubMed were searched for published literature. The search combined various terms for primary care (including “primary” or “ambulatory” or “outpatient”) and “Lebanon”, and included both free text words and controlled vocabulary terms. In addition, a search was carried out of the websites of governmental entities and professional associations, including the Ministry of Public Health, the Order of Physicians, and the Order of Nurses. The websites of relevant organizations, such as the World Health Organization (WHO), the World Bank, United Nations agencies (for example the United Nations High Commissioner for Refugees), and the United States Agency for International Development, were also searched.

1.2 Semi-structured interviews

The semi-structured interviews provided an opportunity to gain additional insights and feedback from stakeholders and to validate the findings from the documentation review. The interview tool covered questions corresponding to the different components of the framework adopted for this study (the interview tool is presented in Annex 1). The interviews lasted 40–60 minutes each and were audiotaped (unless requested otherwise by participants).

An adapted version of the sampling frame from the study by El-Jardali et al. was used to identify the selection criteria for the interviews (1). The sampling frame included the following categories:

- Representatives from Ministry of Public Health:
  - Director-General
  - Head/Member of Primary Health Care
  - Head/Member of Financial and Administrative
  - Head/Member of Health Policy and Planning
  - Head/Member of Monitoring and Evaluation
- Representatives from professional associations (for example, Order of Nurses)
- Representatives from health care organizations (for example, PHC centres)
- Managers of nongovernmental organizations (NGOs)
- Professionals from academia.

A list of stakeholders was compiled to match the sampling frame. Interviewee selection criteria ensured maximum variability across institutions and disciplines and also allowed for variability with respect to individual backgrounds, including academicians, policy-makers and managers (Annex 2).

1.3 Data analysis and synthesis

Data generated from the documentation review and semi-structured interviews were collated and analysed in aggregate form and categorized according to the key components provided in the case study template (for both the abridged and full report). The reliability and validity of the data were enhanced through iterative data collection, use of different methods for data collection, and discussion of findings within the research team.
2. Overview of Lebanese primary health care system

2.1 Primary health care data

Table 1 presents key data related to primary health care (PHC) in Lebanon.

### Table 1. Key PHC indicators for Lebanon

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Results</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population of country</td>
<td>6.3 million (including Syrian and Palestinian refugees)</td>
<td>Ministry of Public Health, 2015 (2)</td>
</tr>
<tr>
<td>Sex ratio: male/female</td>
<td>50.2/49.8 = 1</td>
<td>World Bank, 2016 (estimate) (3)</td>
</tr>
<tr>
<td>Population growth rate</td>
<td>2.6%</td>
<td>World Bank, 2016 (4)</td>
</tr>
<tr>
<td>Population density (people/sq. km)</td>
<td>587</td>
<td>World Bank, 2016 (5)</td>
</tr>
<tr>
<td>Distribution of population (rural/urban)</td>
<td>No definition of rural and urban in Lebanon</td>
<td>–</td>
</tr>
<tr>
<td>Gross domestic product (GDP) per capita</td>
<td>US$ 7914</td>
<td>World Bank, 2016 (6)</td>
</tr>
<tr>
<td>Income or wealth inequality (Gini coefficient)</td>
<td>86.1%</td>
<td>Credit Suisse, 2016 (7)</td>
</tr>
<tr>
<td>Life expectancy at birth</td>
<td>74.9 years</td>
<td>WHO, 2015 (8)</td>
</tr>
<tr>
<td>Top five main causes of death (ICD-10 classification)</td>
<td>Ischaemic heart disease (I25.9), Stroke (I64), Road injury (V89.2), Diabetes mellitus (E14), Trachea, bronchus, lung cancer (D38.6)</td>
<td>WHO, 2015 (9)</td>
</tr>
<tr>
<td>Infant mortality rate</td>
<td>Total: 7.1 deaths/1000 live births, Male: 7.3 deaths/1000 live births, Female: 6.8 deaths/1000 live births</td>
<td>World Bank, 2015 (10–12)</td>
</tr>
<tr>
<td>Under-5 mortality rate</td>
<td>8.3 per 1000 live births</td>
<td>UN-IGME estimate, 2015 (13)</td>
</tr>
<tr>
<td>Maternal mortality rate</td>
<td>15 deaths/100 000 live births</td>
<td>World Bank, 2015 (14)</td>
</tr>
<tr>
<td>Immunization coverage under 1 year (including pneumococcal and rotavirus)</td>
<td>OPV3 (90%), PENTA3 (91%), MCV1 (91%), NB: Information on pneumococcal vaccines (PCV13, PPSV23) and rotavirus (RV5, RV1) are not available because Ministry of Public Health does not provide such vaccines</td>
<td>Ministry of Public Health, 2015 (15)</td>
</tr>
<tr>
<td>Total health expenditure as proportion of GDP</td>
<td>6.4% of GDP</td>
<td>World Bank, 2014 (16)</td>
</tr>
<tr>
<td>PHC expenditure as % of total health expenditure</td>
<td>Work in progress in generating this information</td>
<td>–</td>
</tr>
<tr>
<td>% total public sector expenditure on PHC</td>
<td>Less than 10%</td>
<td>Council for Development and Reconstruction, 2013 (18)</td>
</tr>
<tr>
<td>Per capita public sector expenditure on PHC</td>
<td>Work in progress in generating this information</td>
<td>–</td>
</tr>
<tr>
<td>Public expenditure on health as proportion of total expenditure on health</td>
<td>47.6%</td>
<td>World Bank, 2014 (19)</td>
</tr>
<tr>
<td>Out-of-pocket payments as proportion of total expenditure on health</td>
<td>36.4%</td>
<td>WHO (20)</td>
</tr>
<tr>
<td>Voluntary health insurance as proportion of total expenditure on health</td>
<td>16%</td>
<td>Pettigrew and Mathauer, 2016 (22)</td>
</tr>
<tr>
<td>Proportion of households experiencing catastrophic health expenditure</td>
<td>5.17%</td>
<td>Xu et al, 2003 (23)</td>
</tr>
</tbody>
</table>
2.2 Country profile

Table 2 presents a demographic, macroeconomic and health profile of Lebanon.

**Table 2. Demographic, macroeconomic and health profile of Lebanon**

<table>
<thead>
<tr>
<th>Profile</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic profile</td>
<td>The Lebanese Republic is a democratic parliamentary State in the Eastern Mediterranean Region with an estimated native population of 4.3 million individuals (2). The country is in a stage of demographic transition, with 24% of the population aged below 15 years and 8% aged above 65 years, which indicates that almost half of the population is active, with an age dependency ratio of 47% (24–26). The country records a relatively low fertility rate of 1.7 and a life expectancy of 74.9 years (8, 27). In the past six years Lebanon has witnessed a massive influx of Syrian refugees as a result of the armed conflict in Syria. According to the government’s latest estimates, the country currently hosts around 1.5 million Syrian refugees (both registered and unregistered) along with 31 502 Palestinian refugees from Syria and a pre-existing population of more than 277 985 Palestinian refugees (28). By this, Lebanon records the highest number of refugees per capita in the world, whereby its population size increased by 40% in less than five years after the start of the Syrian crisis (29).</td>
</tr>
<tr>
<td>Macroeconomic profile</td>
<td>Lebanon is an upper middle-income country with a per capita GDP of US$ 7914 (6). The country records a Gini coefficient of 86.1%, which reflects a high degree of wealth inequality (7). The current political turmoil in the region, particularly the Syrian crisis, has disturbed the country’s security and political stability. As a consequence of this situation, the country’s economic stability, investment and growth have been hindered since 2011, resulting in increased fiscal deficits and public debt (30). The slow inflow of investment requires urgent macroeconomic reform to reduce financing pressures and reinforce investor confidence. The refugee crisis has magnified the macroeconomic imbalances by posing an additional stress on the economy, contributing to poverty, unemployment and investor pullback (30). The Lebanese economy was heavily shocked by the unprecedented influx of refugees, with the GDP growth rate falling sharply from 8% in 2010 to 1.9% in 2011 (31). The crisis has also had a substantial impact on Lebanon’s health care services and finances, which have been stretched thin. On the other hand, a positive aspect of the crisis has been the influx of international funds, which has led to an increase in the provision of PHC centres and helped to provide greater access to health care for the country’s most vulnerable population (32).</td>
</tr>
<tr>
<td>Health profile</td>
<td>Lebanon’s demographic transition translates into an epidemiological transition, with noncommunicable diseases (NCDs) accounting for 85% of the burden of disease (33). Cardiovascular diseases and stroke are the leading causes of death in the country, according to WHO statistics (34). The country is facing a variety of public health challenges, including combating NCDs, health promotion across the life cycle, and establishing systems of health preparedness and surveillance (34). The increasing refugee population in Lebanon has placed a significant strain on the country’s health services and exacerbated the burden of both communicable and noncommunicable diseases. This changing epidemiological profile is stressing the Lebanese health care system. Conventional curative care is becoming outdated, and there is an emerging need for strengthening preventive care and advocating health promotion (35). Despite the tremendous strain on the health system, both in case load and financially, the Ministry of Public Health was able to maintain the gains of the health-related Millennium Development Goals (MDGs 4 and 5) (36). Although the influx of international funds has led to an increase in PHC centres, thus providing greater access to the country’s most vulnerable population, a question that remains unanswered is the longer-term sustainability of the current response, given the magnitude and the chronic nature of the crisis (32, 37).</td>
</tr>
</tbody>
</table>

2.3 Health system characteristics

Since the 1970s, Lebanon has endured civil wars, massive population displacement, economic downturns and political instability, all of which have taken a toll on the Lebanese health care sector (37). In particular, this has weakened the governance capacity of the State, leading to rapid growth and expansion of the private sector and NGOs in a highly unregulated manner (38). The Lebanese health care system is pluralistic, due to the public–private mix involved in the financing and provision of health services. Almost half of the population is financially covered by a health scheme, such as the National Social Security Fund or governmental schemes (civil servants’ cooperative or military), or by private insurance (37). The remaining
population (not covered by any formal insurance) is entitled to coverage by the Ministry of Public Health for secondary and tertiary care. Specifically, the Ministry of Public Health contracts accredited private and public hospitals to deliver health care services to the uninsured (38). Although the Ministry of Public Health does not cover ambulatory care services, it provides in-kind support to a National Network of PHC centres that provide reduced-cost consultations and free chronic medications and vaccines to beneficiaries all over Lebanon (37). The Ministry of Public Health also distributes medications for severe diseases such as cancer, HIV and some psychiatric illnesses free of charge. The private sector dominates health care service delivery channels, whereby 80% of the hospitals are private and 67% of PHC centres in the National Network are owned by NGOs. In addition, most ambulatory care services are delivered by private clinicians (37, 39). The strong presence of the private sector with its curative orientation in service delivery has led to an oversupply of hospital beds and technology (38). Furthermore, the Lebanese health system is well known for its oversupply of physicians, particularly specialists, and its critical shortage of nurses (40).

2.4 Geographical availability and equity

The National PHC Network in Lebanon comprises 207 PHC centres distributed across eight administrative governorates (Figure 1): Akkar (8%), Baalback (8%), Beirut (10%), South (15%), North (14%), Nabatieh (14%), Bekaa (6%) and Mount Lebanon (25%) (41).

PHC centres in Lebanon are operated by several entities, including the Ministry of Public Health, the Ministry of Social Affairs, NGOs, and municipalities. Nonetheless, the majority of centres are owned and managed by NGOs (42). In an attempt to increase accessibility to PHC services, the Ministry of Public Health has developed a special type of contractual agreement with public and private centres that fits a delineated set of criteria (43). This has led to the creation and expansion of Lebanon’s National Network of PHC centres from an initial 25 contracted PHC centres in 2012 to 207 PHC centres distributed across Lebanon’s eight provinces (see Figure 1). These centres are distributed based on catchment areas of 5 kilometres, whereby each area is intended to serve 15 000–20 000 inhabitants, varying from less than 10 000 in the least densely populated rural areas to 30 000 in metropolitan urban areas (44). In addition to PHC centres, there are over 600 dispensaries distributed across Lebanon, which are mainly used to provide extensive geographical coverage for vaccines, especially polio, pentavalent and measles vaccines.

2.5 Socioeconomic equality

A wide array of non-State actors provide PHC services, including NGOs, religious charities and political parties, greatly affecting the standards of health and well-being of low- and middle-income people. Religious and sectarian actors dominate welfare regimes and have access to extensive resources. This is mainly due to the power-sharing arrangement adopted by the Lebanese Government whereby religion is entrenched within the political system and public resources are allocated according to a pre-established formula along sectarian lines (45).

The National PHC Network has the largest and most equipped PHC centres (in both the private and public sectors) providing a wide range of services at nominal fees for low-income households (46). PHC centres

Figure 1. Geographical distribution of PHC centres

Akkar 8%
Baalback 8%
Beirut 10%
South 15%
North 14%
Nabatieh 14%
Bekaa 6%
Mount Lebanon 25%

Source: Ministry of Public Health (41).
treat Lebanese and non-Lebanese patients equally in terms of service provision and nominal fees. The Ministry of Public Health has capped medical visit fees in centres within the National Network to a maximum of US$ 12 while providing essential medications for acute illnesses for free and chronic medications for a dispensing fee of less than US$ 1 (47). Refugees registered with UNHCR have access to subsidized care in PHC centres for a fee of US$ 2–US$ 3. These subsidies are available at approximately 100 PHCs countrywide (29, 47). In parallel, and with the onset of the crisis, Syrian refugees can access PHC services through mobile medical units that provide consultations, dispense medication free of charge and refer patients back to PHC centres (28).

2.6 Utilization of PHC services

In the past few years, the National PHC Network of Lebanon has witnessed a significant expansion, with a steady increase in the number of beneficiaries and consultations, particularly in light of the huge influx of Syrian refugees into Lebanon. Between 2009 and 2015, the number of beneficiaries and consultations almost doubled (Figure 2), consultations approached 1.5 million and the number of beneficiaries exceeded 1.3 million, with Syrian refugees accounting for around 35% of the total number of beneficiaries (44).

Table 3 shows the number of consultations carried out in each specialty in 2015, whereby paediatrics and general medicine reported the highest numbers of consultations.

Vaccinations are the most utilized services in PHC, and PHC centres succeeded in achieving an optimal immunization coverage for polio, pentavalent and measles vaccines, despite the epidemiological challenges resulting from the influx of Syrian refugees (Figure 3).

Table 3. Number of consultations, by specialty

<table>
<thead>
<tr>
<th>Specialty</th>
<th>General medicine</th>
<th>Paediatrics</th>
<th>Reproductive health</th>
<th>Dental and oral health</th>
<th>Cardiovascular health</th>
<th>Diabetes and endocrinology</th>
<th>Other specialties</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>303 546</td>
<td>320 378</td>
<td>155 318</td>
<td>174 907</td>
<td>71 843</td>
<td>31 073</td>
<td>436 828</td>
</tr>
</tbody>
</table>

Source: Ministry of Public Health (44).

Figure 2. Distribution of PHC services: consultations and beneficiaries, 2009–2015

Figure 3. National immunization coverage rates for polio, measles and pentavalent vaccines, 2010–2015

Source: Ministry of Public Health (44).
The Syrian crisis placed an unprecedented burden on the Lebanese health care system, particularly PHC. The influx of Syrian refugees resulted in overcrowding of PHC centres and prolonged waiting times, which consequently led to an initial decrease in the utilization of PHC services by the Lebanese (as shown in Figure 4). Moreover, the subsidization of PHC services for Syrians only by developmental partners raised equity concerns, which further discouraged the Lebanese from utilizing these services.

To mitigate the above issue and restore utilization of PHC services by the Lebanese population, particularly the poor, the World Bank launched the Emergency Primary Healthcare Restoration Project (EPHRP), which will be discussed later in more detail. In its first year of implementation, the project succeeded in boosting Lebanese PHC utilization by a significant 28% (Figure 5). By 2017, the number of Lebanese accessing PHC centres increased by 88%. The current distribution of beneficiaries by nationality is as follows: Lebanese (54%), Syrians (44%), and others (2%) (49).

![Figure 4. Trends in utilization of PHC services for Lebanese and Syrians, 2013/2014](image_url)


![Figure 5. Number of Lebanese accessing PHC centres, 2015/2016](image_url)

Source: Ministry of Public Health (49).
3. Timeline of PHC reform

Figure 6 shows the timeline for the evolution of key PHC policies and programmes. The first call to build the PHC system in Lebanon dates back to 1977 (50). Almost 20 years later, Lebanon held its first national conference on PHC, followed by the development of the first National Strategy for PHC in 1994. Two years later, a comprehensive assessment of health centres and dispensaries in Lebanon was conducted to identify those able to provide PHC services; among more than 800 facilities, only 29 centres were chosen to form the epicentre of the Ministry of Public Health National PHC Network (42). Since then, the National PHC Network has been expanding through contractual agreements with NGOs for the provision of publicly funded PHC to reach a total of 207 PHC centres. This has been paralleled by an increased trust in and utilization of services in PHC centres.

In 2009, as part of its efforts to improve the quality of PHC, the Ministry of Public Health collaborated with Accreditation Canada International to develop a National Accreditation Programme for PHC centres in Lebanon (42, 51). In 2010, accreditation standards were developed and piloted in selected PHC centres; these centres were selected based on their size, coverage, geographical location and

**Figure 6. Timeline of PHC reform**

- **1977**
  - First call to build Lebanese PHC system: World Health Assembly resolution in its 30th session
  - Alma-Ata conference decisions in Kazakhstan (1978)

- **1983**
  - Law 159 adopted the devolution and decentralization of the health care system

- **1991**
  - First national conference on PHC in Lebanon to develop National Strategy for PHC centres

- **1994**
  - First National Strategy for PHC developed by Ministry of Public Health

- **2009**
  - National Accreditation Programme for PHC centres launched in collaboration with Accreditation Canada International

- **2010**
  - National Accreditation Programme for PHC centres pilot-tested in three PHC centres

- **2015**
  - First accreditation survey conducted for nine PHC centres
  - Integration of mental health services into PHC centres

- **Current**
  - 207 centres included in Ministry of Public Health PHC network
  - 17 centres accredited out of 92 which are in the process
  - Development of health information system to link and unify the network of PHC centres
  - Scaling up of the current PHC programmes

- **2012-13**
  - Readiness survey in 25 PHC centres and scaling up to 36 centres
  - National PHC Network expanded to include 150 centres
  - Integration of non-communicable disease programme into PHC

- **2016-17**
  - Launch of Lebanon Emergency Primary Healthcare Restoration Project towards Universal Health Coverage in collaboration with World Bank
the services they provided. Accreditation standards were implemented using an incremental approach, followed by evaluation and refinement of the process and then scale-up (42). In 2015, the first official accreditation survey was conducted. Currently, 17 PHC centres are accredited of the 92 centres that are in the process of accreditation.

In 2016 the Ministry of Public Health, in collaboration with the World Bank, launched the Lebanon EPHRP with the aim of providing 150,000 underprivileged citizens that are registered with the Ministry of Social Affairs with free PHC services. The services provided are based on a pre-identified set of packages of preventative health services. A total of 75 PHC centres have been identified to offer this package of services, and they have been provided with the list of beneficiaries in their catchment areas (48). This project is considered a stepping stone to accelerate progress towards universal health coverage in Lebanon. Moreover, and as part of the EPHRP, the Ministry of Public Health recently established a health information system to register beneficiaries and to monitor specific health indicators related to the project (41). This system will help reinforce public sector institutions and promote transparency by providing information for citizens and allowing them to track their administrative formalities.

Table 4 assesses the degree of success of various attempts at PHC reform in Lebanon.

<table>
<thead>
<tr>
<th>Successes or failures</th>
<th>Barriers</th>
<th>Enablers</th>
<th>Source of information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call for increased investment in PHC system</td>
<td>Civil wars, economic downturns and political instability weakened governance capacity of the Lebanese State</td>
<td>Alma-Ata Declaration on Primary Health Care fostered commitment of policy-makers from the Eastern Mediterranean Region to achieve the goals and principles of PHC</td>
<td>Regional Committee for the Eastern Mediterranean, 2008 Qatar Declaration on Primary Health Care</td>
</tr>
<tr>
<td>Health reforms aiming at strengthening PHC system in Lebanon</td>
<td>Dominance of private sector and NGOs in health service delivery</td>
<td>Strong stewardship role of senior management at Ministry of Public Health and Primary Health Care Department</td>
<td>Ammar (38), WHO (52)</td>
</tr>
<tr>
<td>Establishment of a National Accreditation Programme for PHC centres</td>
<td>Lag in quality regulations and capacity at PHC centres in Lebanon</td>
<td>Building on successful implementation of the National Hospital Accreditation Programme in Lebanon Launch of National Accreditation Programme for PHC centres in collaboration with Accreditation Canada International Adoption of an incremental approach to implementation of accreditation standards</td>
<td>El-Jardali et al. (51) PHC directors</td>
</tr>
<tr>
<td>Progressing to universal coverage for disease prevention and PHC services</td>
<td>Financial constraints Syrian refugee crisis placed a significant strain on the health care system Public may not commit to contributing to the coverage of essential services</td>
<td>EPHRP, funded by World Bank, to restore access to essential health care services for the poorest Lebanese Plans to integrate community-based health insurance within the broader health system in Lebanon to cover the relatively less poor population</td>
<td>World Bank (46), Ammar (53)</td>
</tr>
<tr>
<td>Expansion of PHC programmes</td>
<td>Insufficient human and financial resources</td>
<td>Political will Training and capacity-building of PHC staff by Ministry of Public Health team Donor funding to scale up PHC programmes for Syrian refugees and Lebanese</td>
<td>Ministry of Public Health representative PHC centre director</td>
</tr>
</tbody>
</table>
4. Governance

The Lebanese PHC system is pluralistic as it includes diverse religious and political groups, a strong private sector and an active civil society with powerful NGOs. With a multitude of stakeholders with different agendas, interests and beliefs, strong leadership and innovative governance are much needed attributes. Furthermore, given the limited resources along with the weak authority of the public sector, the challenge is how best to coordinate the efforts of all partners in order to achieve national health goals. Figure 7 depicts the governance structure of the National PHC Network.

**Figure 7. Governance structure of National PHC Network**

![Governance structure diagram](image)
In Lebanon, PHC is mainly provided in health centres and dispensaries. In 1996, a comprehensive assessment of health centres and dispensaries was conducted to identify those able to provide a minimal package of PHC services. Among more than 800 facilities, 29 PHC centres were selected to form the nucleus of a National Network (42). This network has gradually expanded to currently include 207 PHC centres. The centres within the National Network constitute the basic operational units for the provision of public health services. These centres are founded on a unique partnership between the Ministry of Public Health and the different operating entities, such as the Ministry of Social Affairs, NGOs, and municipalities. Figure 8 shows the distribution of the PHC centres among the different operating entities in Lebanon.

The National PHC Network was formed through a special type of contractual agreement that provides for the first time an official framework of accountability in PHC (51). In this hybrid governance model, the Ministry of Public Health acts as a network facilitator assuming a stewardship role by steering the system towards achieving its goals in collaboration with the major stakeholders.

The Ministry of Public Health contracts with health centres that satisfy the following criteria:

- ability to provide five basic services: family medicine, obstetrics and gynaecology, dentistry, cardiology, and paediatrics;
- possessing the minimum infrastructure required by the Ministry of Public Health, namely at least five rooms and a sterilization room;
- staffed with the following human resources: centre manager, registered nurse, practical nurse and information technology (IT) officer.

The contractual agreements between the Ministry of Public Health and health centres are governed by a decree issued by the Council of Ministers on 26 December 2006. This decree sets forth the duties and responsibilities of each party.

The duties and responsibilities of the Ministry of Public Health include:

- technical supervision of the centres;
- provision of essential medications and vaccines based on the centres’ needs;
- provision of various medical supplies based on what is available in the warehouse;
- provision of the necessary IT supplies to develop and update the health information system in the centres;
- training and capacity-building of human resources.

PHC centres have the following duties and responsibilities:

- renovate infrastructure to meet Ministry of Public Health specifications;
- follow up on the administrative, financial and logistical aspects of the PHC centres’ operations to make sure they comply with accreditation standards;
- ensure the availability of adequate human resources in terms of numbers and specialties;
- manage centres’ basic utilities and maintenance;
- ensure the use of essential medications and vaccines provided by the Ministry of Public Health from its central warehouse and through the Young Men’s Christian Association (YMCA), especially drugs to treat chronic diseases.
• ensure proper implementation of the health information system in terms of the daily and monthly reports submitted to the Ministry of Public Health;
• collect nominal fees from the beneficiaries in exchange for services to feed the centres’ funds (the fees shall be used to cover operation expenses such as salaries, supplies and maintenance. The Ministry of Public Health capped medical visit fees in centres within the PHC network to a maximum of US$ 12);
• develop outreach programmes to engage citizens and solicit local needs in setting the centres’ activities;
• avail the centre’s technical and administrative documents for Ministry of Public Health officials to monitor the workflow and the quality of the services provided.

These contractual agreements have a duration of three years, subject to renewal upon the approval of both parties involved. The parties shall be consulted regarding renewal six months prior to the expiry of the original term. Either party has the right to terminate the contract if the other party fails to meet its obligations. However, a termination notice should be submitted at least three months prior to the termination date. The Ministry of Public Health does not contract with PHC centres as a conventional insurer or purchaser, and the agreement between the two does not involve any financial transactions. Rather, the Ministry of Public Health supports centres within the National Network through in-kind contributions, which include provision of essential drugs, vaccines, medical equipment and supplies, staff training activities, and health education materials and guidelines. In exchange, centres commit to provide a comprehensive package of services, including immunization, essential drugs, cardiology, paediatrics, reproductive health and oral health; and to play an important role in health education, school health, nutrition, environmental health and water safety. The outcomes of these services are regularly reported to the Ministry of Public Health for evaluation and feedback. This public–private “organizational management approach” has enabled the Ministry of Public Health to ensure a primary medical safety net, thus providing an alternative to secondary care to the uninsured (54).

The Ministry of Public Health has also developed oversight policies and practices to monitor service delivery patterns, quality of care and performance of PHC centres within the National Network. Immunization activities and provision of essential drugs and other services are reported regularly to the Ministry of Public Health for analysis, evaluation and feedback. Monitoring of PHC centres involves regular visits by the Ministry’s health inspectors and administration of patient satisfaction surveys. Accreditation is another important regulatory tool used by the Ministry of Public Health to strengthen its leadership and governance function as a national authority regulating the quality of care at the primary care level. By establishing a National Accreditation Programme for PHC centres in 2009, the Ministry of Public Health aimed to ensure continuous and sustainable quality control, improve compliance with legal and safety standards, enhance transparency and accountability, and establish a positive image of standards of practice and service at PHC centres (51).

Regarding the mode of employment, the National PHC Network offers employment to a large number of health care providers on a full-time, part-time, casual or voluntary basis. Employment of health care providers also varies by professional group; whereas the majority of physicians are working on part-time, casual or voluntary bases, the majority of nurses and allied health professionals are salaried and work on a full-time basis (55). The method of provider payment is not standardized across centres due to the dominance of the private sector in the delivery of PHC services.

Syrian crisis
At the start of the Syrian crisis, there was no clear government policy regarding the displaced Syrians. There was a multitude of international and local NGOs, humanitarian agencies and governmental
bodies involved in the delivery and financing of health services, which led to fragmentation of health system governance and poor coordination of response to the refugee crisis (37). To promote an evidence-informed response to the crisis, the Ministry of Public Health collaborated with the Center for Systematic Reviews on Health Policy and Systems Research (SPARK) to conduct a national priority-setting exercise that involved all key stakeholders related to the Syrian crisis, which consequently led to the production of policy-relevant research on the issue (56). Afterwards, the Ministry of Public Health collaborated with the Knowledge to Policy (K2P) Centre to convene a national policy dialogue on “Promoting access to essential health care services for Syrian refugees in Lebanon”, which was pre-informed by a briefing note (i.e., knowledge translation product) produced by the K2P Centre (57). Based on these deliberations, the Ministry of Public Health established a National Steering Committee that included major international and local partners to guide the response and develop plans that detailed all funding sources, activities performed, and coordination efforts (37). This prompted a more integrated approach to planning, financing and service delivery by embedding refugee health care within the national health system. The Ministry of Public Health Steering Committee is one of 10 sector steering committees that were established later on as part of Lebanon’s coordinated crisis response management (Figure 9).

The major role of the Ministry of Public Health Steering Committee, which reports to the Minister of Public Health, is to set the strategic directions for the health sector, prioritize health interventions and steer the allocation of resources. The Lebanon Crisis Response Plan Steering Committee was created in response to the Syrian refugee crisis (58). The Ministry of Public Health Steering Committee aims to achieve four overarching goals: better governance, cost-effectiveness, decentralization and sustainability. Better governance is expected to be achieved by the Ministry of Public Health assuming a leadership role and adopting a participatory approach towards all stakeholders, disclosing funding sources and creating accountability mechanisms. Cost-effectiveness is to be attained through rationalizing resource allocation based on priorities, reducing duplications and improving efficiency of service delivery. Decentralization is to be accomplished when municipalities are empowered to take an active role in planning and implementation and in addressing the social determinants of health, whereby the Ministry of Public Health coordinates activities at the regional or district level. Sustainability of interventions is to be guaranteed by strengthening the institutional capacity of national health facilities (58). It would be critical to ensure proper and continuous follow-up on the different activities implemented to achieve the four overarching goals of the committee.

Despite the limited increase in system inputs relative to the magnitude of the Syrian refugee crisis, service provision at the level of PHC has been maintained throughout the crisis (37). Health programmes, including immunization, epidemiological surveillance, medication for chronic illnesses, and reproductive health remained fully functional (44). Also, programmes such as the integration of NCD management within PHC progressed as planned in spite of the crisis (44). Importantly, Lebanon succeeded in sustaining its achievements in terms of controlling and preventing outbreaks, decreasing out-of-pocket expenditure and lowering maternal and child mortality (in line with MDGs 4 and 5). The resilience of the health system has been attributed to four major factors: (a) networking of partners in the health sector and mobilization and support of global partners; (b) diversification of the health system and adequate infrastructure and health human resources; (c) comprehensive communicable disease response; and (d) integration of refugees into the health system (37). An overview of the entities contributing to the success of PHC service delivery is provided in Figure 10. Nonetheless, a key question that remains unanswered is the longer-term sustainability of the current response.
Figure 9. Lebanon Crisis Response Plan leadership

Ministry of Social Affairs & United Nations Resident Humanitarian Coordinator
Convening a steering body of humanitarian & stabilization response partners

Intersectoral working group led by the Ministry of Social Affairs and co-chaired by the United Nations High Commissioner for Refugees and United Nations Development Programme

- **BASIC ASSISTANCE**
  - Ministry of Social Affairs
  - United Nations High Commissioner for Refugees
  - Lebanon Cash Consortium

- **EDUCATION**
  - Ministry of Education & Higher Education
  - United Nations Children’s Fund

- **FOOD SECURITY**
  - Ministry of Agriculture
  - Food and Agriculture Organization
  - World Food Programme

- **HEALTH**
  - Ministry of Public Health
  - World Health Organization
  - United Nations High Commissioner for Refugees

- **LIVELIHOOD**
  - Ministry of Social Affairs
  - Ministry of Economy & Trade
  - United Nations Development Programme

- **PROTECTION**
  - Ministry of Social Affairs
  - United Nations High Commissioner for Refugees
  - United Nations Children’s Fund
  - United Nations Population Fund

- **SHELTER**
  - Ministry of Social Affairs
  - United Nations High Commissioner for Refugees
  - UN-Habitat

- **SOCIAL STABILITY**
  - Ministry of Social Affairs
  - Ministry of Interior & Municipalities
  - United Nations Development Programme
  - United Nations High Commissioner for Refugees

- **ENERGY**
  - Ministry of Energy & Water
  - United Nations Development Programme

- **WATER**
  - Ministry of Energy & Water
  - United Nations Children’s Fund

Figure 10. Overview of entities contributing to success of PHC service delivery

WHO
- Technical & logistic support

World Bank
- Emergency Primary Healthcare Restoration Project

UNHCR
- IFS project

European Union
- IFS project

MOE
- School health programmes including vaccination activity and training of social health supervisors

Ministry of Interior
- through municipalities

Lebanese General Security
- Vaccination of newcomers at the border entry points

Accreditation Canada
- PHCC accreditation

YMCA
- Chronic Drugs Project

Rotary Club
- Vaccination activities

AUB
- Department of Family Medicine at AUBMC, FHS, and VMP in the projects of NCD, NCPNN and EPHRP

UNICEF
- Financial & operational support

UNRWA
- National vaccination activities

UNFPA
- Reproductive health activities

UNDP
- Support to integrated service provision at the local level and HIS upgrading in context of EPHRP (Tuscany)

MOPH Units & Programs
- Epidemiological Surveillance Unit; CDU; Vital Statistics Unit; National AIDS Program; National Tuberculosis Program; CDW; Airport dispensary; Qada Physicians

MOSA
- Integration of social development centres in PHC Network

Local NGOs
- PHC Network

Lebanese Society of Pediatricians
- Involvement of private sector in national vaccination campaigns

Order of Nurses in Lebanon
- Capacity-building for nurses through UNICEF

Beyond Association
- Provision of health care and vaccination services for Syrian refugees across Lebanon

Source: Ministry of Public Health (41).
5. Financing

Since the 1970s, Lebanon has endured civil wars, economic downturns and political instability, which have taken a toll on the health care sector. The long history of conflict has contributed to the weakening of the public sector, resulting in an escalating health care bill, a weakened PHC system and rapid growth of private institutions and NGOs in an unregulated manner. This has led to a highly privatized health care system whereby private institutions monopolize both delivery and the financial aspects of care. This market-maximized system falls short in terms of the provision of adequate health coverage, as a consequence of which almost half of the population are not covered by any formal insurance (making them eligible for coverage by the Ministry of Public Health, which serves as the insurer of last resort for hospital care and expensive treatments) (59). In 1998, Lebanon spent 11.4% of its GDP on health – the highest in the Eastern Mediterranean Region – with out-of-pocket health spending at 60% (20). Grappling with escalating costs, the Ministry of Public Health implemented a series of health care reforms to improve the equity and efficiency of the health care system. The main focus of these policy reforms was revamping the National PHC Network. Increased accessibility and utilization of PHC services resulted in a significant decrease in total spending as a percentage of GDP from 11.4% to 6.4%, and out-of-pocket health spending from 60% to 36.4% (20). The positive impacts of Lebanon’s health reform policies were in fact documented in the WHO 2010 Health systems financing report as a success story on how the country was able to decrease its health spending and out-of-pocket expenditure whilst improving its health indicators (60). This indicates that in a country such as Lebanon, which is dominated by the private sector, PHC is the most equitable and cost-effective arrangement (61).

In spite of the above health reforms, preventive and primary care still account for less than 10% of public health sector expenditure on PHC services (62). Difficulties in deriving the exact expenditures on PHC have been attributed to the various activities and partners contributing to PHC in Lebanon. Nonetheless, work is currently in progress at the Ministry of Public Health to generate this information. The Ministry of Public Health also relies on international donors for funding certain programmes related to PHC (63). During the Syrian crisis the country has received external (humanitarian) aid, which remains insufficient compared to the magnitude of the crisis. It is worth noting that the Ministry of Public Health is not a direct recipient of donation funds, but rather coordinates with international agencies to make sure these funds are channelled to the appropriate priority areas and populations through different international and local NGOs (37).

It is critical for the Ministry of Public Health to assume a more active role in increasing its fiscal capacity by demanding a greater budget allocation and by exploring alternative financing options, such as capitation or earmarked taxation (61). This is particularly so in light of a population ageing at a rate that exceeds economic growth. Moreover, Lebanon lacks uniform old age retirement pension plans in spite of the fact that it records the highest proportion of older adults (those aged 65 years and above) in the region (8.3%) (64). Rather, such plans are largely dependent on the type of employment, and thus those who have never been employed, the majority of whom are women, lack formal health coverage, and thus have to rely on Ministry of Public Health subsidies and out-of-pocket payments. This limited statutory provision of social security, compounded by employment rates that fall below the global averages, aggravate inequality and poverty. The inadequate social security can be primarily attributed to meagre public expenditure on social protection and health, accounting for only 1.12% of GDP (estimate last reported by the International Monetary Fund in 2011) (64). This problem is further amplified by an unprecedented increase in NCDs, whereby Lebanon
records a high prevalence of NCD risk factors such as smoking, obesity and physical inactivity (61).

With the escalating health care costs, increasing burden of chronic diseases and an unstable economy, PHC stands out as a viable, cost-effective and smart investment. As mentioned earlier, the majority of PHC centres are managed by the civil society sector (NGOs), a sector that has modest resources and is dependent on donors. While this sector can play a substantial role in mobilizing public action through advocacy, in terms of financial resources its efforts need to be complemented by the governmental sector (particularly the Ministry of Public Health). This means that the Ministry of Public Health has an indispensable role to play in supporting and strengthening PHC through building its regulatory and administrative capacity, improving the infrastructure of the National PHC Network and adopting alternative health financing options to ensure the sustainability of service delivery in PHC.
6. Human resources for health

Health care providers constitute the linchpin for the delivery of quality health care. Adequacy and sufficiency of health human resources, in terms of numbers, education and experience, are crucial for the provision of efficient, effective and sustainable health care services. Available statistics show that there are 3.2 physicians per 1000 population in Lebanon, which is considered high compared to both the global and the Eastern Mediterranean Region averages. The ratio of nurses (and midwives) to population has increased over the years, reaching 3.3 per 1000 population in 2015 (2).

The lack of a human resources health information system makes it difficult to develop a clear understanding of the supply of, demand for and distribution of health care providers within the National PHC Network (65, 66). Existing data reflect an unstable workforce and pinpoint two key challenges, namely inadequate supply of health care providers and increased staff turnover. These challenges are aggravated by the pronounced financial constraints and poor human resources for health planning in the PHC sector (65, 67). With limited financial resources and a lack of clear recruitment criteria, PHC centres end up recruiting less competent human resources, compromising the quality of services provided (65).

The Lebanese health care system is well known for its surplus of specialists and critical shortage of competent primary care physicians (that is, family physicians). This can be primarily attributed to the scarcity of family medicine residency programmes (68); however, there are prospects of change as more universities are now including family medicine residency programmes into their curriculum. Additionally, low reimbursement rates fail to attract family physicians and result in their replacement with general practitioners (GPs). Under Lebanese law, medical graduates are licensed to practice as GPs once they pass the colloquium exam without the need for any vocational training (65). The Ministry of Public Health can mitigate this issue by reactivating Decree Number 10823, which stipulates that fresh medical graduates complete a two-year rotation in PHC settings prior to receiving their practice licence (69). Furthermore, there is a scarcity of nurses and midwives, which may have a negative impact on the availability and quality of care. The shortage of nurses, which is one of the major challenges facing the Lebanese health care system, is mainly due to limitations in incentives, work environment, and migration of Lebanese nurses to the Gulf, Europe and North America, driven by various “push and pull” factors (67, 70).

There is also a noticeable paucity of human resources for health specialized in mental, geriatric, and community care (65). Lebanon suffers from a critical insufficiency of mental health professionals, with a median of three mental health professionals per 100 000 individuals, which compromises the provision of mental health services (71). PHC centres have been trying to make up for this shortage by training GPs and nurses to screen for mental health cases (65). As for geriatrics, this has been a long-neglected field in Lebanon – fellowship programmes are non-existent and only one medical school incorporates this specialty into its curriculum. Also, there is a lack of nurses and social workers specialized in gerontology (72). This imparts a considerable burden on GPs who grapple in their daily practice to provide the minimum standards of care for the elderly. Furthermore, stakeholders reported the lack of social workers in PHC centres, with only large centres (such as the Makhzoumi Foundation and Jamiyet Amal) employing such workers. This is because, with the various financial constraints facing PHC centres, priority is directed towards (for example) deployment of nurses to cope with the increasing load in PHC centres, especially since social workers are full-time employees contracted for a monthly salary.
Existing shortages are further exacerbated by the increasing turnover of PHC staff due to low job satisfaction (67), which may be linked to a variety of factors, including inadequate compensation, lack of opportunities for professional development and poor working environments (50). Inadequate compensation is a major push factor, as low salaries in PHC fail to meet the financial expectations of health care providers, especially those with higher educational degrees. That and other factors lead to lower levels of job satisfaction and eventually attrition and migration (67). Another push factor is the lack of professional development programmes, which makes PHC less attractive for those wishing to continuously update their knowledge and skills. Furthermore, the poor quality of the work environment in PHC centres, characterized by professional burnout, exposure to occupational violence and tense working conditions, drives health care professionals away as they fail to protect their physical, psychological and professional well-being (50).

Although there is a lack of national-level data on urban–rural distribution of health care workers within the National PHC Network, anecdotal evidence indicates that human resources for health challenges are exacerbated in rural areas, which threatens equitable access to quality PHC services. A shortage of human resources for health, coupled with a lack of equipment and financial resources, results in the maldistribution of the workload, placing greater pressure on a small group of unequipped staff and resulting in a deterioration of the quality, safety and sustainability of services (65). Moreover, in a sociocultural context where females prefer health care providers of the same gender, the reported shortage of female health workers may also imperil equitable access (65). This highlights the need for the development of human resources for health recruitment and retention strategies that specifically target nurses and female care providers in rural and semi-urban settings in order to achieve a balanced gender distribution that ensures equity in the provision of care in primary settings (65).

In light of the above challenges, the Ministry of Public Health has engaged in various interventions to address shortages in health workforce supply, particularly of nurses (73). These interventions have played a significant role in promoting the nursing profession through funding university educational programmes and training, supporting the Order of Nurses, and improving nurses’ working and financial conditions (73). Furthermore, the Ministry of Public Health has been playing an active role in the capacity-building of PHC workers through conducting a variety of training activities. The major training activities that were conducted in 2016 include:

- **Training on clinical practice guidelines for reproductive health services.** This activity was organized in cooperation with the United Nations Population Fund (UNFPA) and the Lebanese Society of Obstetrics and Gynecology, and aimed at improving primary health workers’ skills in delivering reproductive health services.

- **Training on monitoring, diagnosis and treatment of malnutrition.** This activity was organized in cooperation with the United Nations Children’s Fund (UNICEF), and involved the training of 223 PHC centres on how to monitor cases of malnutrition in children aged under 5 years and in pregnant and lactating women.

- **Training on integration of NCDs into PHC.** This activity was organized in collaboration with WHO and was part of the launch of phase 8 of the NCD Integration Initiative. It involved the training of 76 PHC administrators and health service providers.

- **Training on immunization.** This activity was organized in cooperation with the Syndicate of Nurses in Lebanon, and aimed at strengthening the role of nurses in the immunization process in order to improve the quality of the vaccination services provided in PHC centres.

- **Training on implementation of the EPHRP.** This activity involved training 592 PHC workers on the following themes: reproductive health, malnutrition, maternal and infant mortality, immunization, integrating NCDs into PHC, health information system, essential benefits packages and financial planning (41).
Despite these efforts, Lebanon still lacks a coherent human resources strategy that provides strategic direction for recruitment, retention, performance improvement and capacity-building of the PHC workforce. This underscores the need for the Ministry of Public Health to take the lead and develop a national committee that is representative of all stakeholders in order to address policies regarding financial compensation, professional development, occupational safety and job satisfaction of PHC providers (67). This committee will have to bridge the pay gap between PHC and other health sectors, thereby making sure PHC staff are properly compensated based on their level of education and experience. It also needs to engage certain stakeholders, such as educational institutions and syndicates, in the establishment and evaluation of professional development programmes in order to enhance students’ appreciation of PHC and to encourage them to specialize in community care. Furthermore, this committee will have to empower concerned stakeholders to assume an active role in developing initiatives to promote supportive work environments that enhance the well-being of the PHC staff. Conclusively, evidence-based human resources planning needs to be bolstered in order to underpin the expanding role of PHC in the health care system.
7. Planning and implementation

This section describes the systems and policies that are in place concerning PHC, elaborates on how effective they are, and considers whether the comprehensiveness of services is adequate, taking into account user engagement programmes, referral systems, comprehensiveness of services and implementation of programmes.

7.1 National Health Strategic Plan

In 2016, the Ministry of Public Health developed and published the National Health Strategic Plan for the health sector spanning the period 2016–2020, almost 10 years after publishing its first National Health Strategic Plan in 2007. This plan constitutes an important step for enhancing the Ministry of Public Health’s stewardship function and strengthening the health care system in Lebanon, including PHC (54). The strategic goals for the period 2016–2020 have been identified as follows (54):

- modernize and strengthen sector governance
- improve collective public health and promotion
- continue progress towards universal health (care) coverage
- develop and maintain emergency preparedness and health security.

The strategic plan is accompanied by an operational plan to help translate the strategic goals into measurable objectives and targets. This operational plan includes the specific objectives, courses of action, responsibilities, timeline and indicators to attain the strategic goals. The operational plan also reflects the key activities that will be undertaken by the Ministry of Public Health and other key partners to expand and scale up the different initiatives at PHC level. While the Ministry of Public Health is the main entity involved in planning and organization, the Syrian crisis has given rise to a number of development partners and international agencies who have been contributing to planning and organization of health services for refugees. In light of the multitude of programmes and projects being implemented by development partners, efforts are being made to better integrate these programmes and projects within the overarching vision for PHC. This will help avoid overburdening PHC centres and minimize competing demands from different programmes and projects.

7.2 Epidemiological surveillance system

Conceived in 1995, the Epidemiology and Surveillance Unit at the Ministry of Public Health operates the national surveillance system for communicable diseases, screens epidemiological alerts, performs field investigations and analytic epidemiological studies, provides feedback to health professionals, and offers training on surveillance tools (73). The Epidemiology and Surveillance Unit posts its reports and figures on the Ministry of Public Health website, with weekly updates. Of particular relevance to PHC is the surveillance system specific to medical centres, dispensaries and field medical units. This system aims at enhancing reporting from ambulatory care and ensuring timely detection and verification of alerts in order to ensure prompt responses to outbreaks. It reports on vaccine-preventable diseases (measles, acute pertussis, flaccid paralysis, mumps and rubella), other communicable diseases (acute respiratory infection, cholera, acute diarrhoea, bloody or dysenteric diarrhoea, acute jaundice, unexplained fever, leishmaniasis and scabies), asthma, and accidents and injuries. Importantly, it complements the national communicable diseases surveillance system to provide a more comprehensive overview of the current public health situation. In 2014, the Ministry of Public Health implemented Decision No. 964/2 specifying the official weekly form for reporting by medical centres, dispensaries, field medical units, and the team at the Ministry of Public Health. A weekly aggregated data-based form is used. The Ministry of Public Health recently published a guideline for the medical centre, dispensary and field
medical unit-based surveillance system, which can be accessed for free (74). Data from this surveillance system flow from the health unit level to the Ministry of Public Health caza level and to the mohafazat and central level. The principle of response involves verification (in case of an alert), investigation (in case of verified alert) and corrective measures to prevent the spread of diseases. The flow of data across the different levels is presented in Table 5.

### Table 5. Data flow from the medical centre, dispensary and field medical unit surveillance system

<table>
<thead>
<tr>
<th>Level</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health unit level</td>
<td>Review consultations logbook and complete weekly form&lt;br&gt;Send form to Ministry of Public Health caza level on weekly basis</td>
</tr>
<tr>
<td>Ministry of Public Health caza level</td>
<td>Ensure follow-up with medical centres, dispensaries and field medical units&lt;br&gt;Review forms and check data (contact health unit in case of error)&lt;br&gt;Enter received forms in a specific local database, which permits storage of data and automatic descriptive analysis&lt;br&gt;Send local database electronically to the central Ministry of Public Health team and corresponding mohafazat level on weekly basis</td>
</tr>
<tr>
<td>Mohafazat and central level</td>
<td>Ministry of Public Health team receives copies of the local databases&lt;br&gt;If there is gap in data entry at caza level, mohafazat level will ensure necessary data entry (data entry for forms provided by medical units is performed at mohafazat level)&lt;br&gt;Perform data cleaning followed by data analysis&lt;br&gt;Generate regular summary bulletin and post on the Ministry of Public Health website</td>
</tr>
</tbody>
</table>

Source: Ministry of Public Health (74).

The Epidemiology and Surveillance Unit has played a critical role in preventing disease outbreaks in Lebanon amidst the Syrian refugee crisis (37). The unit was able to sustain and scale up its functions, including measuring and monitoring the disease burden, detecting outbreaks, investigating emerging infections and implementing early warning and response systems (75). These were complemented by training of staff by the Ministry of Public Health’s health inspectors, precautionary measures at airports and seaports (against potential pandemic threats), and nationwide vaccination campaigns (76). Consequently, Lebanon was able to effectively manage several outbreaks, including one of measles (77). The spread of leishmaniasis (an infection not previously noted in Lebanon) was also avoided despite the existence of its vector in North Lebanon and Bekaa, and the presence of infected Syrians as a human reservoir (77). Similarly, Lebanon maintained a cholera-free status from 2013 to 2015 despite it being considered a public health threat by WHO due to the refugee crisis (77). Lebanon was also able to remain polio free, even with the re-emergence of the disease in Syria (44). While there has been an increase in tuberculosis cases, early detection, isolation, and treatment of such cases helped prevent an outbreak in host communities. In 2015, the overall treatment success rate for tuberculosis reached 83%, with half of those receiving treatment completely cured (2). It is critical for the Ministry of Public Health to sustain these efforts by strengthening its outbreak control measures and building the capacity of the Epidemiological Surveillance Unit. In fact, as part of its strategic objectives, the Ministry of Public Health plans to establish comprehensive surveillance and response system modules in epidemiological and surveillance information systems. It also plans to establish cardiovascular and diabetes registries, as well as expand the mental health registry and cancer registry to include community data. Moreover, there are plans to increase the capacity of the Expanded Immunization Programme at PHC level, reinforce the
national surveillance system, and upgrade routine surveillance using IT systems (54).

7.3 Referral system and gatekeeping

While there is no official or formal referral system in Lebanon, referral between primary and secondary care is required as part of the National Accreditation Programme for PHC centres (42). However, data and information flow from primary to secondary care is a noted shortcoming in the current system. The Ministry of Public Health plans to link PHC centres to governmental hospitals through a referral system. In fact, it is anticipated that PHC will become the entry point to the health care system once the entire National PHC Network become involved in the EPHRP towards universal health coverage. Nonetheless, given the current health system arrangement, there are significant challenges that impede PHC becoming an effective gatekeeper that regulates access to secondary and tertiary care levels. This means that some patients can bypass PHC and seek secondary care directly, which in turn can contribute to an escalating health care bill. In fact, the most complex aspect of referral care is the patient’s acceptance of and compliance with the recommended referral (78). Thus, it is important to understand the structural changes that need to be made within the current health system and the incentives that need to be put in place to enable a functional gatekeeping system in a context such as Lebanon. This could also help facilitate longitudinal continuity of care, which is a widely accepted core principle of primary care associated with patient satisfaction, health care utilization and mortality reduction (79). At present, longitudinal continuity of care is not a requirement in PHC and data on continuity of care are lacking.

7.4 Community engagement

While no community needs assessment has been conducted at the national level, some PHC centres that are undergoing accreditation have attempted to elicit community needs using a number of approaches. These have included conducting small focus group sessions, relying on household surveys initiated by municipalities, and recruiting volunteers to conduct the needs assessment. The latter approach is more prominent in politically strong centres with robust community outreach programmes. However, standardized tools to conduct community needs assessment are still non-existent.

Recently, and as part of accreditation standards, accredited PHC centres are now required to establish a local community committee in order to promote community engagement. The voices of communities and citizens are further reflected in health service organization and planning through the municipalities and NGOs contracted by the Ministry of Public Health to deliver PHC. In fact, as mentioned earlier, the majority of PHC centres (67%) are owned and managed by NGOs (42). In addition, PHC centres involved in the EPHRP are required to carry out proactive population outreach activities to engage communities and link them to the PHC system. Efforts to integrate community and citizen engagement as a central component of a PHC approach are critical to strengthening the accountability, transparency and responsiveness of the PHC system. One recent approach worth mentioning is the “Support to local services providers to cope with communities’ needs”, led by the United Nations Development Programme (UNDP), which aims to improve local governance and territorial development and to tackle health, social, and educational problems exacerbated by the Syrian crisis. This initiative, which is part of UNDP’s Lebanon Stabilization and Recovery Programme, is a joint collaboration between the Ministry of Public Health, the Ministry of Education and Higher Education, the Ministry of Social Affairs, the Ministry of Interior and Municipalities, and the local authorities. It aims to develop integrated PHC services, enhance dialogue among all stakeholders, promote capacity-building and establish a referral system. The goal is to link all local partners within a certain geographical context to provide comprehensive services and ensure continuity of care at the local level. This initiative is currently being pilot-tested in 17 municipalities. Scaling up the initiative would require strong interministerial
collaboration, stakeholder commitment, human and financial resources, and capacity to develop workplans that respond to community needs.

7.5 Availability of medical equipment and drug supplies

Medical equipment is provided through donations to the Ministry of Public Health. These are then distributed to PHC centres based on their requests. The Ministry of Public Health has created an inventory to help keep track of the equipment available at PHC centres, thus minimizing potential abuse. Nonetheless, inadequate training on calibration and maintenance of equipment has been highlighted as challenging by PHC centres.

As for drug supplies, the Ministry of Public Health uses three different procurement mechanisms, depending on the type of product. Vaccines and essential medicines (for acute illnesses) for use at PHC level are procured through UNICEF, which uses an international bidding system that does not involve the Ministry of Public Health (38). Chronic medications are procured and distributed through a large NGO (YMCA) to over 450 PHC centres (both within and outside the National PHC Network) that provide free medication to 150,000 patients annually. The ministry’s role is to provide the needed budget for this project. Procurement of medications for severe diseases such as cancer, HIV and some psychiatric illnesses is done by the Ministry of Public Health through a local tender procedure. The ministry distributes these medicines without charge through a computerized central warehouse which serves around 15,000 patients yearly (38).

In 2014, the Ministry of Public Health launched a National List of Essential Medicines based on the WHO Model List of Essential Medicines for 2013. The National List of Essential Medicines contains a core list and a complementary list of drugs. The core list presents a list of drugs needed for a basic health care system, listing the most efficacious, safe and cost-effective medicines for priority conditions. These are selected based on current and projected future public health relevance and potential for safe and cost-effective treatment. The complementary list presents essential medicines for priority diseases, for which specialized diagnostic or monitoring facilities are needed. PHC centres that are within the National PHC Network are entitled to free essential drugs, which are provided by the Ministry of Public Health. To receive essential drugs, PHC centres are required to send an essential drugs request to the PHC coordinator in each district and state the types and amounts of drugs needed. The request is then signed by the Head of the Primary Health Care Department at the Ministry of Public Health. Once approved, the order is transferred to the central warehouse where the responsible authority sets a date with the PHC centre to receive the requested drugs. The Ministry of Public Health has the right to adjust the requested quantities in order to prevent perceived waste or inequity between regions. These adjustments are done based on previous reports on numbers of beneficiaries at PHC centres as well as feedback from the PHC coordinators assigned to the different regions (Ministry of Public Health website).

Despite the presence of standard procedures for the procurement of medicines, there are some instances where the Ministry of Public Health is unable to secure the requested (and approved) drugs to PHC centres on time. This could be due to a failure in procurement of drugs by the responsible entities (UNICEF or YMCA), or due to a specific drug no longer coming into Lebanon as a result of international shortages. In some instances, YMCA receives donations that are not within the List of Essential Medicines, and these are subsequently discontinued when the donated stock is depleted. The procuring agencies (UNICEF, YMCA) are responsible for informing the Ministry of Public Health of any delays or shortages, so that the information is communicated to the PHC centres accordingly (Ministry of Public Health website). Although the huge influx of Syrian refugees has put a strain on the medicine budget, the Ministry of Public Health was able to effectively coordinate with national and international humanitarian agencies to ensure increasing funds for medications in response to the needs of the Syrian refugees.
to increased demand (Ministry of Public Health website). Given that the Syrian refugee population benefits from the same health care entry points as the Lebanese population, the Ministry of Public Health plans to continue to align current mechanisms of national drug procurement with the existing needs for both Lebanese and non-Lebanese, while avoiding parallel procurement mechanisms by health partners, which would lead to duplication of efforts (28).

### 7.6 Comprehensiveness of services

The PHC centres within the National Network are committed to provide a comprehensive package of services including immunization, essential drugs, mother and child care, dental and oral health, chronic disease prevention and treatment programmes, and mental health services (41) (Figure 11).

The insufficient attention given to geriatric care in PHC raises some concerns, taking into consideration that 26% of the Lebanese population is forecast to fall in the 65 years or older age group by 2050 (80). This is exacerbated by the lack of a national pension plan, with existing elderly retirement pension plans varying, depending on the type of employment. For instance, government and military employees benefit from pension plans and health insurance. On the other hand, employees covered by the National Social Security Fund, most of whom work in the private sector, lose coverage upon retirement – the time when they need insurance most (72). Furthermore, those who have never been employed before, such as housewives, find themselves lacking eligibility for health care coverage. This is further compounded by the fact that private insurance is
costly and denies coverage for those aged above 70 years (72). Therefore, it is critical to strengthen geriatric care in PHC to ensure the delivery of care to vulnerable elderly people, especially those who find themselves without any kind of health insurance or coverage. In fact, the integration of elderly health services at PHC level has been highlighted as a priority in the recently published National Health Strategic Plan (54). Also, as part of the EPHRP project, some PHC centres are pilot-testing a “64+ package” that will provide specific services for the elderly. Consideration should also be given to increasing the number of medical schools in Lebanon offering a fellowship programme in geriatric medicine (72).

Moreover, attempts to implement social and youth-friendly services in PHC have been limited. For instance, services related to reproductive health and gender-based violence have been pilot-tested with a few selected PHC centres. Similarly, the Ministry of Public Health, in collaboration with UNICEF and Himaya (a local NGO), is currently working on child protection policy in order to integrate child protection practices in health care institutions. It would be important to follow up on these initiatives in order to ensure that the required human, financial and technical resources are in place for their proper scale-up and sustainable implementation.

Some of the key achievements related to the services provided by PHC centres are elaborated below, as highlighted in the Ministry of Public Health’s annual report and the Primary Health Care Department’s annual magazine for the year 2015/2016 (41, 44).

7.6.1 Mother and child care

Despite the tremendous strain on the health system as a result of the huge influx of Syrian refugees into Lebanon, the Ministry of Public Health was able to maintain the gains of the health-related MDGs (MDGs 4 and 5), keeping maternal and infant mortality relatively low among the Lebanese population compared to most countries in the Eastern Mediterranean Region (36). In November 2016, the Ministry of Public Health launched a report – Maternal mortality in Lebanon, a success story – that attempted to provide a detailed overview of efforts to reduce maternal mortality in Lebanon and to promote maternal health and well-being. The Ministry of Public Health has supported research on maternal mortality, launched a National Committee for Safe Motherhood in collaboration with the Lebanese Society of Obstetrics and Gynecology and UNFPA, supported training activities, and cooperated with academic centres and hospitals in order to achieve MDG 5 through reducing maternal mortality. Some of the key initiatives that have recently been implemented in Lebanon related to maternal and child health are described below.

Reproductive health services

The Primary Health Care Department at the Ministry of Public Health, in collaboration with UNFPA, provides reproductive health services and family planning in accordance with a joint annual workplan to improve the health of family members (women, children, youths and men) through the following actions (41, 44):

- providing reproductive health medicines and supplies;
- conducting awareness and education programmes on reproductive health by PHC centres;
- providing some governmental hospitals with the required equipment to deal with high-risk pregnancies and for early detection of diseases of the reproductive system;
- providing care to mothers during pregnancy and postpartum;
- training 226 service providers on clinical practice manuals for reproductive health services in cooperation with UNFPA and the Lebanese Society of Obstetrics and Gynecology;
- building the capacity of health workers in health centres to deal with survivors of sexual violence and rape cases (Figure 12).

Mother and Child Health Care Initiative

The Ministry of Public Health, in collaboration with WHO and the Makassed Philanthropic Organization, launched the Mother and Child Health Care Initiative
in September 2014, with the aim of providing quality PHC services to Lebanese mothers and children in Beirut, Bekaa, and the North (81). The services covered include antenatal and delivery services, child health care, vaccination (up to 2 years of age), and establishment of a referral system between PHC centres and nearby governmental hospitals. This initiative is part of the Instrument for Stability project “Conflict reduction through improving health care services for the vulnerable population in Lebanon”, funded by the European Union. As of September 2015, a total of 913 services have been provided to mothers and children in these areas (44) (Table 6).

Table 6. Number of health services provided by the Mother and Child Health Care Initiative

<table>
<thead>
<tr>
<th>Child health care</th>
<th>Antenatal care</th>
<th>Delivery care</th>
<th>Total services combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>111</td>
<td>379</td>
<td>423</td>
<td>913</td>
</tr>
</tbody>
</table>

Source: Ministry of Public Health (44).

THRIVE Lebanon

Antenatal care accounts for a significant proportion of medical services provided to Syrian refugees at PHC level. According to UNHCR, 70% of women aged 15–49 years who have been pregnant in the last two years reported accessing antenatal care (a decrease from 2015). Of these women, 73% reported three or more visits, while 53% reported more than four visits (an increase from 2015). Among the 30% of women who did not receive antenatal care, most indicated they were unable to pay for fees or transport costs. In addition, only 26% of women who delivered mentioned receiving postnatal care (82). While maternal and neonatal mortality remained relatively low among the Lebanese population, the rates have been increasing among the Syrian refugees (46). Given that the disease burden among displaced Syrians is largely concentrated around maternal and child health, the Ministry of Public Health, along with UNICEF, UNHCR, and WHO, is currently working on the THRIVE Lebanon initiative, which represents a new modality that will shift subsidization for Syrian maternal and child health services to a direct contracting and prepayment model. This is expected to reduce service costs considerably, while supporting retention and quality (28).

7.6.2 Noncommunicable diseases (NCDs)

In 2012, the Primary Health Care Department at the Ministry of Public Health, in collaboration with WHO, launched a pilot initiative on NCDs in 26 PHC centres involved in the accreditation preparedness phase (44). The NCD programme aims at early detection and prevention of diabetes, hypertension, and dyslipidemia through screening visitors of designated PHC centres who are aged 40 years and above, in accordance with the WHO protocol for NCDs. It also aims to promote health awareness, manage individuals with those pre-existing diseases, and enhance surveillance of cardiovascular diseases among the Lebanese population. By 2016, 190 PHC centres across Lebanon had integrated the NCD programme, along with the required medical equipment for point-of-care testing (41). The number of beneficiaries of this initiative is presented in Table 7.

Table 7. Number of beneficiaries of NCD initiative, June 2013 to November 2016

<table>
<thead>
<tr>
<th>Number of beneficiaries from the early detection initiative (phase I)</th>
<th>Number of patients referred to phase II (i.e., visiting a physician)</th>
<th>Number of patients returning with the results of the laboratory tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 739</td>
<td>14 560</td>
<td>6 674</td>
</tr>
</tbody>
</table>

Source: Ministry of Public Health (41).
7.6.3 Malnutrition programme

The Ministry of Public Health, in collaboration with UNICEF and International Orthodox Christian Charities, launched an initiative to integrate acute malnutrition into PHC, with the aim of screening and treating diagnosed malnourished cases of children aged under 5 years at PHC centres, along with referrals to governmental hospitals (83). PHC centres were provided with the required equipment and supplies for screening of acute cases of malnutrition. Activated centres offered a variety of services, including screening for acute malnutrition for children aged under 5 years, acute malnutrition treatment, education on nutrition and infant and young child feeding, and provision of micronutrients for children aged under 5 years. Children with complicated severe acute malnutrition are referred to secondary care for inpatient therapeutic treatment. In 2015, paediatricians and health care workers from 226 PHC centres were trained on the screening and diagnosis of acute cases of malnutrition, of which 63 were chosen to be treatment centres and underwent further training (44) (Figure 13). International Orthodox Christian Charities has also trained eight hospitals across the country on inpatient treatment of malnutrition using the WHO revised protocol for the treatment of malnutrition (83). As of 2016, over 48 934 children (Lebanese and non-Lebanese) had been screened to assess their nutritional status, and 1617 malnutrition cases were diagnosed and treated in PHC centres designated for treatment as well as in hospitals (41).

7.6.4 Mental health

While modest initiatives to promote mental health in Lebanon have been implemented since 2008, the massive influx of Syrian refugees has galvanized efforts to reform the mental health system in Lebanon. In September 2013, the K2P Centre partnered with the Ministry of Public Health in identifying mental health as a top health policy priority. In parallel, the Ministry of Public Health prepared a National Mental Health Programme, with integration of mental health into PHC as a top priority. Accordingly, the K2P Centre prepared an evidence brief for policy on promoting access to mental health services in PHC centres, which subsequently informed a national policy dialogue on this issue. The post-dialogue survey showed that several implementation steps had been taken by stakeholders, including the establishment of a national task force, training of PHC staff, and updating the National List of Essential Medicines to include psychiatric medications (84). In 2014, the Ministry of Public Health, with the support of WHO, UNICEF, and the International Medical Corps, launched the first National Mental Health Programme to reform the mental health system in Lebanon (85). In 2015, the Ministry of Public Health launched the Mental Health and Substance Use Strategy for Lebanon 2015–2020 (86). A key output of this strategy was the development of the Interministerial Substance Use Response Strategy for Lebanon 2016–2021, launched jointly by the Ministries of Public Health, Social Affairs, Interior and Municipalities, Justice, and Education with the aim of strengthening leadership and governance for mental health and substance use (86). The Ministry of Public Health is currently working to scale up the integration of the Mental Health Programme in all PHC centres within Lebanon.
the National Network and to ensure that the needed human capacity is in place for optimal impact. A main challenge pertains to the establishment of a strong referral system between all levels of care to ensure timely access to adequate outpatient and inpatient services for individuals with mental disorders (87).

7.7 Universal health coverage

7.7.1 Emergency Primary Healthcare Restoration Project

The Emergency Primary Healthcare Restoration Project (EPHRP) is a development project that aims to assist the Lebanese Government in coping with the Syrian crisis by restoring access to essential health care services for poor Lebanese that were affected by the massive influx of Syrian refugees (Table 8). The crisis has resulted in overcrowding of PHC centres and long waiting times, subsequently leading to a sharp decrease in utilization by the Lebanese population. This project, funded through a US$ 15 million grant from the World Bank Multidonor Trust Fund, aims to provide an essential set of preventive, primary and ambulatory care packages to 150,000 Lebanese who constitute the poorest and most vulnerable population in Lebanon. The project intends to achieve three main objectives:

• Provision of six essential health care packages:
  – three age-specific and gender wellness packages (ages 0–18, females 19 years and above, males 19 years and above);
  – two NCD care packages (diabetes and hypertension);
  – reproductive care package (prenatal and postnatal care).

• Capacity-building of PHC centres (based on a rapid facility readiness assessment conducted by the Ministry of Public Health to identify gaps in capacities and resources).

• Project outreach, management and monitoring:
  – ensure effective and efficient administration, regulation and implementation of the project;
  – improve the effectiveness of the Ministry of Public Health in contracting with PHC centres;
  – rigorous monitoring and performance assessment to make sure the project achieves its set objectives.

Table 8. Overview of EPHRP

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>To reduce the social, economic, and health impacts of the Syrian crisis on poor Lebanese by subsidizing a package of essential health services</td>
</tr>
<tr>
<td>Beneficiaries</td>
<td>150,000 impoverished Lebanese identified by the National Poverty Targeting Programme of the Ministry of Social Affairs as living below the poverty line, using a proxy means testing targeting mechanism</td>
</tr>
<tr>
<td>Package</td>
<td>• Wellness package (age 0–18)</td>
</tr>
<tr>
<td></td>
<td>• Wellness package (females 19+)</td>
</tr>
<tr>
<td></td>
<td>• Wellness package (males 19+)</td>
</tr>
<tr>
<td></td>
<td>• Diabetes package</td>
</tr>
<tr>
<td></td>
<td>• Hypertension package</td>
</tr>
<tr>
<td></td>
<td>• Antenatal package</td>
</tr>
</tbody>
</table>

| Service providers         | • 75 PHC centres within the Ministry of Public Health National Network (initial target) |
|                           | • Provider participation is voluntary                                        |
|                           | • Governed by legal agreement between Ministry of Public Health and PHC centres |

| Contracting and provider payment mechanism | • Provider payment is based on capitation and is output based |
|                                          | • Per capita cost is estimated at US$ 60 |
|                                          | • To properly incentivize PHC centres, the per capita payment has been split into three parts: (a) a contract advance; |
|                                          | (b) use of services by beneficiaries; and (c) user satisfaction, monitored through third-party assessment and |
|                                          | internally by the Ministry of Public Health (46) |

Implementation of the EPHRP project was initiated in June 2016. In its first year, the project disbursed US$ 3.3 million and succeeded in contracting 59 PHC centres selected based on the number of beneficiaries within their catchment area. Of these, 48 started enrolling beneficiaries (49). PHC centres engage in proactive outreach activities to link communities to the PHC system. Currently, the project registers 47,086 beneficiaries, of which 10,048 beneficiaries received health care services from contracted PHC centres. More than 90% of the beneficiaries expressed their satisfaction with the services provided by the centres (49). The project also played an important role in restoring the trust of the Lebanese population in PHC, particularly since it primarily targets the most vulnerable Lebanese. There are plans to gradually scale up the project to the entire National PHC Network once the pilot phase is complete. While the project has generated some promising results, it has also highlighted the need to expand the scale and scope of primary-level service delivery (46). Furthermore, given the growing social and behavioural challenges affecting the Lebanese and Syrian refugee populations, it is important to expand community outreach activities to reach the vulnerable and to create demand for service. In addition, it was noted that centres that were not introduced to accreditation prior to the universal health coverage project developed the misunderstanding that universal health coverage and accreditation were two separate vertical programmes. While the initial plan was to link accreditation status to selection of centres for the universal health coverage project, this proved to be challenging given the nature of the project and the need to target those areas with the poorest population. By the time funding was secured, the number of accredited centres within these areas was not sufficient, thus forcing the Ministry of Public Health to also include non-accredited centres in the project. In the scale-up phase, it would be important to emphasize accreditation as a prominent prerequisite for delivery of high-quality responsive services and to eventually achieve universal health coverage.

7.7.2 Community-based health insurance

The Ministry of Public Health is considering community-based health insurance targeting primarily the less poor individuals (as opposed to the poorest targeted by EPHRP) not covered for ambulatory care by other insurance schemes or programmes. This scheme will take the form of a decentralized coverage design consisting of an essential package of preventive and curative services, and provided through the network of PHC centres and governmental hospitals (53). However, the dilemma in Lebanon is the current existence of universal coverage for tertiary care and advanced treatments (through the six public health funds, in addition to private funds and the Ministry of Public Health as insurer of last resort), whereas prevention and PHC services are not universally covered. Therefore, the public would not be committed to contributing to the coverage of essential services. Thus, it would be important to consider the best approach to integrate community-based health insurance within the broader health system in Lebanon, and establish how community-based health insurance would complement other health financing systems to achieve universal health coverage.
8. Regulatory processes

This section considers the government’s accountability and ability to regulate the quality of services, medical products, and standards of professional education.

8.1 Regulation of quality of services

8.1.1 National Accreditation Programme for PHC centres

In 2009, the Ministry of Public Health took the decision to launch a National Accreditation Programme for PHC centres in collaboration with Accreditation Canada International. The establishment of such a programme is considered a milestone in regulating the quality of care within the National PHC Network in Lebanon. The standards reflect the following dimensions of quality: accessibility, appropriateness, continuity of care, effectiveness, efficiency, safety and continuous performance improvement. The standards also include the following different levels:

- **Basic**: addresses basic structures and processes related to the foundational elements of quality improvement and safety in the delivery of PHC services.
- **Advanced**: emphasizes key elements of client-centred care and consistency in service delivery through standardized processes.
- **Excellence**: demonstrates a commitment to excellence and leading the PHC field in terms of quality and safety.

A baseline assessment of the readiness of PHC centres to implement accreditation standards revealed a lag in quality regulations and capacity at PHC centres in Lebanon. Consequently, an incremental approach to implementation of the accreditation standards was adopted. In 2015, the first actual accreditation survey was conducted for 10 PHC centres. Currently, 92 PHC centres are undergoing accreditation, of which 17 have been fully accredited. The timeline for the development of the National Accreditation Programme is displayed in Figure 14.
Figure 14. Timeline for development of National PHC Accreditation Programme

2008–2010 (foundation)
- Accreditation Canada selected to support the development of the programme
- Development and pilot-testing of PHC accreditation standards with support from the expert working group
- Accreditation training (three days) for 23 health care workers from 20 PHC centres
- Self-assessment and report by pilot centres

2010/2011 (phase I)
- Preparatory meeting between Ministry of Public Health and Accreditation Canada
- General introduction to accreditation and provision of PHC package for 159 PHC centres and 371 health care workers
- 30 PHC centres trained on accreditation standards
- Accreditation Canada updated the PHC accreditation standards (three chapters added: laboratory, radiology, and medication reconciliation)
- 17 PHC centres currently accredited out of 92 undergoing accreditation

2011/2012 (phase II)
- Accreditation training (three days) for 55 health care workers from 40 PHC centres
- Selection of 22 PHC centres for self-assessment based on their readiness (readiness self-assessment)

2013/2014 (phase III)
- Accreditation training (three days) for 60 PHC centres
- Accreditation training for 89 health care workers and 43 PHC centres
- Mock survey (one day) and report by Accreditation Canada for 34 PHC centres
- Mock survey (two days) and report by Accreditation Canada International
- Training of 20 Lebanese surveyors with Accreditation Canada

2015 (phase IV)
- Accreditation training for 97 health care workers and 43 PHC centres
- Theory and practicum training for 16 national surveyors
- Self-assessment for 21 PHC centres and mock survey visit
- First actual accreditation surveys conducted for 10 PHC centres by Accreditation Canada International

2016 (phase V)
- Accreditation Canada updated the PHC accreditation standards (three chapters added: laboratory, radiology, and medication reconciliation)
- Capacity-building for 78 accreditation coordinators
- Development of system for accreditation decisions and claim accreditation system
- Actual survey for 10 PHC centres by Accreditation Canada International
- 30 PHC centres trained on accreditation standards
- Development of monitoring and follow-up tool to be used in the accredited PHC centres
- Self-assessment for 25 PHC centres followed by actual survey for 25 PHC centres

2017 (current)
- Selection of 25 PHC centres for self-assessment based on their readiness (readiness self-assessment)
- Training of national surveyors
- Launch of phase VI
- Accreditation training for 89 health care workers and 43 PHC centres

2010/2011 (phase I)
- Accreditation training for 60 PHC centres
- Mock survey (one day) and report by Accreditation Canada for 34 PHC centres
- Mock survey (two days) and report by Accreditation Canada International
- Training of 20 Lebanese surveyors with Accreditation Canada

2013/2014 (phase III)
- Accreditation training for 97 health care workers and 43 PHC centres
- Theory and practicum training for 16 national surveyors
- Self-assessment for 21 PHC centres and mock survey visit
- First actual accreditation surveys conducted for 10 PHC centres by Accreditation Canada International

2015 (phase IV)
- Accreditation training for 97 health care workers and 43 PHC centres
- Theory and practicum training for 16 national surveyors
- Self-assessment for 21 PHC centres and mock survey visit
- First actual accreditation surveys conducted for 10 PHC centres by Accreditation Canada International

2016 (phase V)
- Accreditation Canada updated the PHC accreditation standards (three chapters added: laboratory, radiology, and medication reconciliation)
- Capacity-building for 78 accreditation coordinators
- Development of system for accreditation decisions and claim accreditation system
- Actual survey for 10 PHC centres by Accreditation Canada International
- 30 PHC centres trained on accreditation standards
- Development of monitoring and follow-up tool to be used in the accredited PHC centres
- Self-assessment for 25 PHC centres followed by actual survey for 25 PHC centres

2017 (current)
- Selection of 25 PHC centres for self-assessment based on their readiness (readiness self-assessment)
- Training of national surveyors
- Launch of phase VI
PHC accreditation typically begins with a readiness survey of prospective public and private PHC centres, whereby the Ministry of Public Health provides three-day training to key PHC representatives on the concept of quality and accreditation (Figure 15). PHC centres are then selected for self-assessment based on their readiness. Following self-assessment, two auditors from Accreditation Canada conduct a one-day mock survey. The auditors fill standardized templates and checklists that cover the main levels of accreditation. Based on the auditors’ assessments, a final report is generated, upon which the Ministry of Public Health decides whether to proceed with conducting the actual survey. PHC centres that pass the actual survey become accredited. The Ministry of Public Health does not impose punitive actions on centres that fail accreditation; instead, it positions itself as a key partner in supporting PHC centres to obtain accreditation.

Existing primary studies point to the effectiveness of the National Accreditation Programme for PHC centres in Lebanon. In one study conducted across 25 PHC centres, all surveyed directors indicated that accreditation had improved quality in several areas, especially in terms of documentation (55%); implementing standards, policies and procedures (41%); translating quality into tangible and measurable outcomes (32%); enhancing awareness and involvement of health personnel in quality issues (32%); enhancing management and leadership (14%); improving work conditions (18%); and strengthening relationships between PHC centres and patients (14%) and local authorities (9%). With respect to the effect of accreditation on patient satisfaction, 36% of respondents linked accreditation to increased patient trust and satisfaction with quality of services and decreased number of concerns and complaints. In addition, 32% reported an increase in the number of patients visiting the centre (42). A reported challenge was the limited financial resources, which hindered implementation of the standards. For example, financial resources were required for infrastructure, equipment and information technology, and follow-up calls. In addition, some respondents pointed to the limited availability of physicians and specialists and high turnover and workload as additional factors that slowed the accreditation process (42). While accreditation is a quality management strategy to ensure that institutions have the foundation to be able to provide quality care, it is also important to promote a culture of measurement, transparency and continuous quality improvement within PHC centres. Efforts and strategies are currently under way by the Ministry of Public Health to ensure the sustainability of quality improvement and patient safety, such that PHC centres do not lose momentum for quality improvement once they become accredited. Outside the National PHC Network, regulation of quality is less rigorous and varies across health centres and dispensaries. At a minimum, dispensaries and primary care providers are subject to general licensing (54). On a positive note, the Ministry of Public Health is planning to link dispensaries to PHC through satellite units and establish standards of operation. These dispensaries could be leveraged for immunization outreach.

8.1.2 PHC indicators

At present, there are no standardized national indicators that need to be reported by all PHC centres. However, plans are under way to establish a standardized set of national indicators, though
the reporting of these indicators will be confined to those centres involved in the EPHRP towards universal health coverage. The proposed set of indicators reflects measures related to overall beneficiary description (age, gender, and region); wellness package (0–18 years); wellness package (19+ years); reproductive services; treatment of diabetes; treatment of hypertension; and grievances. All indicators can be extracted at PHC centres and at project level. The indicators are provided in Table 9.

Given that the establishment of a national set of standardized indicators is considered an important step in strengthening the monitoring and quality improvement components in PHC, it would be important to scale up the proposed list of indicators to all PHC centres within the National Network. Consideration could also be given to incorporation of explicit patient safety and outcome indicators. Moreover, the Ministry of Public Health could benefit from leveraging incentive systems that link contractual agreements, regulations, accreditation, and performance indicators (88). Indeed, if accreditation and performance indicators are coupled with the appropriate policies that would create the right incentives, it would provide PHC with a great potential to expand its coverage, achieve better quality of care and enhance responsiveness to population needs. Insights could be gained from the IMPROVE project, which describes the implementation of the first national set of standardized hospital indicators for performance benchmarking and reporting in Lebanon as well as the initiation of an independent governance structure for sustainability (89).

### 8.2 Regulation of medical products

As previously stated, the Ministry of Public Health uses three different procurement mechanisms for pharmaceuticals, depending on the type of product. Drugs procured through the Ministry of Public Health (for severe diseases) or YMCA (for chronic medications) have to meet regulatory requirements set by the Ministry of Public Health, while those procured through UNICEF (vaccines and essential medicines for acute illnesses) through an

| Table 9. Proposed indicators to be reported by PHC centres involved in EPHRP |
|---------------------------------|----------------------------------|
| **Category**                    | **Indicators**                   |
| Overall beneficiary description | • Direct project beneficiaries   |
|                                 | • Percentage total enrolment     |
|                                 | • Female beneficiaries           |
|                                 | • Enrolment rate in females      |
|                                 | • Beneficiary distribution by age group |
|                                 | • Enrolment rate per age group   |
|                                 | • Beneficiary distribution by region |
|                                 | • Enrolment rate per region      |
|                                 | • Utilization of services: average number of visits per beneficiary per year |
| Wellness package (0–18 years)   | • Children immunized            |
|                                 | • Percentage children 18–24 months immunized |
|                                 | • Drop-out rate; children under 5 years immunized against polio |
|                                 | • Percentage of children 5–7 years who have had their vision screened |
|                                 | • Percentage of adolescents 16–18 years measured for body mass index |
| Wellness package (19+ years)    | • Beneficiaries 40 years and above screened for diabetes mellitus |
|                                 | • Women aged 40 and above screened for breast cancer |
|                                 | • Percentage males screened for hypertension |
| Reproductive services           | • Pregnant women receiving at least four antenatal visits |
| Treatment of diabetes           | • Percentage of diabetics who had an eye check |
|                                 | • Percentage of diabetics who had a urine microalbumin test |
|                                 | • Percentage of diabetics who had an HbA1c test |
|                                 | • Discovery rate for diabetes    |
| Treatment of hypertension       | • Percentage of hypertensive beneficiaries who had a urine microalbumin test |
|                                 | • Percentage of hypertensive beneficiaries who had an electrocardiogram |
|                                 | • Percentage of hypertensive beneficiaries who had an eye check |
|                                 | • Discovery rate for hypertension |
| Grievances                      | • Grievances registered related to delivery of project benefits addressed |
|                                 | • Average time to resolve grievance |
international bidding system have to abide by the quality control standards set by UNICEF.

The Department of Pharmacy constitutes the Ministry of Public Health’s regulatory arm for pharmaceuticals and drug handling. There is also active involvement of professional associations and universities in quality assurance and drug registration through a technical committee chaired by the Ministry of Public Health’s Director-General in accordance with the 1994 Pharmacy Practice Law (later amended by Law No. 530, issued in 2003) (38). In the absence of a functional central laboratory in Lebanon (the national laboratory has closed due to political turmoil), the Ministry of Public Health technical committee has imposed a certificate of analysis from an internationally recognized laboratory as a requirement for registration. The technical committee relies on site inspections conducted by the drug regulatory authorities of exporting countries, as well as drug analysis performed in a reference laboratory. Prior to marketing, imported drugs are subject to direct inspection, and batch analysis certificates are required. Local industries are required to conduct a bioequivalence study similar to imported generics (38).

All pharmaceutical products have to be registered at the Ministry of Public Health regardless of whether they are imported or manufactured locally. Exceptions are related to parallel import and drugs donated to NGOs (in small quantities) that bypass the system and reach dispensaries after obtaining a special permit from the Ministry of Public Health (38). In 2015, the Ministry of Public Health released its fifth edition of the Lebanon National Drug Index, which provides a verified listing and classification of all registered drugs available in the Lebanese market (90). As part of its strategic plan, the Ministry of Public Health plans to reestablish the full functions of the national central public health laboratory. This includes updating the functions of the central referral laboratory, and building the capacity of laboratories to implement the functions of the central referral public health laboratory (54).

The Ministry of Public Health has also succeeded in promoting exclusive generic drugs in PHC centres within the National PHC Network. This has been reinforced by the recent adoption of generic drug substitution as a policy instrument to promote generic drug use and alleviate the extremely high cost of pharmaceuticals on households, government, and insurers. However, lessons from early implementation of the policy highlight the importance of strengthening the implementation process, securing the full commitment of pharmacists and physicians, strengthening the stewardship function of the Ministry of Public Health, and establishing pro-generic drug incentives to promote prescribing, dispensing and use of generics (47). To further enhance transparency and drug quality, the Ministry of Public Health launched a Code of Ethics for Medicinal Products Promotion in May 2016 (91). The Code of Ethics is an important stepping stone towards regulating the pharmaceutical industry and promoting rational drug prescribing. However, it would be important to ensure proper implementation of the Code of Ethics and establish a mechanism to transform the Code of Ethics into a regulation to enable enforcing sanctions at later stages. This should be coupled by strong commitment of all key stakeholders to its proper implementation (92).

Recently, the Ministry of Public Health has developed a number of guidelines for quality assurance of pharmaceutical products. These include guidelines for good laboratory practices for pharmaceutical quality control laboratories in Lebanon; good storage and distribution practices of pharmaceutical products; drug technical file submission; and good manufacturing practice (93). The implementation of these guidelines has been enforced through different ministerial decisions.
8.3 Regulation of standards of professional education

While a common approach in regulating the supply of human resources is the numerous regulatory clauses, such measure could not be implemented in Lebanon for two main reasons. First, it is perceived as a culturally and politically unacceptable interference with personal freedom of career choice. Second, the high number of Lebanese health professionals yearly graduating from foreign universities can hardly be subjected to national control mechanisms (93). In the absence of effective upstream control of oversupply, the Ministry of Public Health has focused its efforts on addressing shortages, particularly that of nurses. Interventions such as financing university education programmes, creating and supporting the Order of Nurses, conducting training, and improving nurses’ financial and working conditions have had a significant impact on promoting the nursing profession (73). Moreover, there are prospects of change as the Ministry of Public Health is now working with representatives from selected private universities to influence standards of professional education for family medicine. However, given that there is only one public university in Lebanon, cross-sectoral and intersectoral collaborations are necessary to effectively regulate standards of professional education for different cadres of primary care providers. This could also feed into the Ministry of Public Health’s strategic plan to update the national licensing requirements and processes for medical professionals (54).
9. Monitoring and information systems

While a great amount of information exists on Lebanon’s PHC sector, this information is fragmented. Information gaps, data duplication, and lack of consistent dissemination are all significant barriers that hinder the development of a robust health information system (94). Despite these barriers, the Ministry of Public Health has been engaging in a concerted effort to develop its information and communication technology systems. The ministry has been developing customized IT applications and most of its operations are being automated. In PHC, the ministry has been working in-house since 2002 to develop a health information system that organizes and manages both the administrative and medical activities of PHC centres. This system includes a variety of modules for electronic medical records, personnel, appointments, drug inventory, accounting, analysis, reporting and statistics (94).

In parallel, the chronic medication programme in PHC centres developed a web application to manage the dispensing of medications within different programmes. This application can store patient data, centre data, and medication data and can generate reports and statistics, for example on medication stocks. Patient electronic files are saved in a central database that is accessible to all partners, and which may prove useful for referring NCD patients from PHC centres to hospitals. The Ministry of Public Health has also established a central database in PHC units that captures and collects information from all PHC centres. In this database, each centre has a single ID, under which data related to this centre are available in aggregated form, such as mapping, lists of specialties, equipment and services. This database will be useful for benchmarking at later stages when PHC centres start collecting standard indicators.

Nonetheless, PHC still suffers from information gaps, such as:

- lack of information, mainly due to underreporting;
- lack of information processing, mainly due to a lack of technical and human resources;
- poor information flow, mainly due to bottlenecks inherent to the system.

The aforementioned gaps, along with the multiplicity of information sources, make the derivation of health indicators quite challenging, especially given that some information needs to be complemented in order to develop such indicators. In the meantime, indicators are being extracted from surveys and studies, or estimated based on the minimal dependable data available.

The EPHRP might bring about prospects of change in terms of revamping the health information systems of PHC centres. The project is currently being pilot-tested, and the Ministry of Public Health has established a new health information system called “Phoenix” to register beneficiaries and to monitor health and financial indicators related to this project (41). This online system connects 70 PHC centres (those involved in the pilot) to the Primary Health Care Department in the Ministry of Public Health, which ensures the transfer of information in a rapid, safe and accurate manner (41). It is worth noting that the old system was offline, and the only data the Ministry of Public Health was receiving from centres were the monthly reports, which were collected as hard copies and entered into the PHC Department database manually. With the Phoenix system, monthly reports will be automatically generated and electronically shared with the Ministry of Public Health. Also, the field visit reports by PHC coordinators will no longer be done manually but rather filled on tablets, whereby the information can be synchronized into the system. Phoenix is not only a health information system but also acts as an enterprise resource planning system that includes a variety of modules, such as a comprehensive electronic medical record and a feature that enables mapping of all PHC centres. The Ministry of Public Health is planning
to have this system fully operational in all PHC centres by 2018, so that all centres become linked to the Ministry of Public Health’s central database. In addition to improving the quality of services provided by PHC centres, the system will permit precise collection and centralization of information by linking it to a unified database, thus allowing the extraction, documentation and monitoring of various indicators. The Monitoring and Evaluation Department is currently working on developing a set of standard indicators for centres involved in the EPHRP, which will eventually be shared across all PHC centres. These indicators will be extracted from the raw data collected by the system, such as demographic, administrative and electronic medical record data. Table 10 (extracted from the July 2017 EPHRP dashboard) provides a list of health indicators currently being reported by centres involved in the EPHRP. However, this list is not yet finalized and might be subject to amendments by the World Bank.

Table 10. Health indicators reported by PHC centres involved in EPHRP

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Year 1 target</th>
<th>Actual to date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female beneficiaries</td>
<td>50%</td>
<td>51%</td>
</tr>
<tr>
<td>Utilization of services: average number of visits per beneficiary per year</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Children immunized</td>
<td>1 600</td>
<td>1 926</td>
</tr>
<tr>
<td>Children immunized against polio</td>
<td>1 600</td>
<td>774</td>
</tr>
<tr>
<td>Health facilities contracted</td>
<td>75</td>
<td>69</td>
</tr>
<tr>
<td>Health personnel receiving training</td>
<td>250</td>
<td>650</td>
</tr>
<tr>
<td>Timely transfer of funds</td>
<td>3.5 months</td>
<td>1 month</td>
</tr>
</tbody>
</table>

Source: Ministry of Public Health (49).

As for incident reporting, some PHC centres have managed to develop systems for this purpose, yet underreporting remains a prevalent reality, with the majority of centres lacking the necessary tools and preparedness to monitor incidents. Centres undergoing accreditation are required to submit grievance reports to the Ministry of Public Health on a regular basis. These reports show how filed complaints are being addressed by the governorate coordinator, who inspects the centre, investigates the issue and takes the necessary corrective action. Interestingly, PHC centres involved in the EPHRP have significant grievance redress systems, which exceeded their set targets for 2017 (Table 11). Figure 16 shows the top four grievances received by category.

Table 11. Grievance redress system for 2017

<table>
<thead>
<tr>
<th>Grievance redress system</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of grievances registered</td>
<td>60</td>
<td>112</td>
</tr>
<tr>
<td>% grievances addressed</td>
<td>80%</td>
<td>97%</td>
</tr>
<tr>
<td>Average time to resolve grievance</td>
<td>–</td>
<td>2.5 days</td>
</tr>
</tbody>
</table>

Source: Ministry of Public Health (49).

Figure 16. Grievance categories: top four grievances

Source: Ministry of Public Health (49).

The Ministry of Public Health pays centres involved in the EPHRP on a capitation or fee-per-patient basis, and part of this fee is linked to patient satisfaction. Patient satisfaction is solicited through standard surveys in the PHC centres involved in the project. The Ministry of Public Health’s representatives administer the surveys through phone calls to beneficiaries and the results are entered into the health information system. To verify these results, an external auditor readministers half of the surveys and compares the answers. The final results obtained are used to develop a results framework and generate a report to be used by the Ministry of Public Health and the
World Bank. Table 12 (obtained from a recent EPHRP dashboard issued in 2017) shows that the surveyed beneficiaries reported a degree of patient satisfaction and trust that exceeded 90% in those centres (49).

**Table 12. Patient experience and satisfaction in centres involved in EPHRP**

<table>
<thead>
<tr>
<th>Patient experience and satisfaction</th>
<th>Result (2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beneficiaries surveyed</td>
<td>1200</td>
</tr>
<tr>
<td>Patient satisfaction score</td>
<td>&gt; 90%</td>
</tr>
<tr>
<td>Waiting time at PHC centre</td>
<td>40 minutes</td>
</tr>
<tr>
<td>Beneficiaries reporting trust in their health care provider</td>
<td>&gt; 90%</td>
</tr>
<tr>
<td>Beneficiaries reporting easy access to PHC centre</td>
<td>&gt; 80%</td>
</tr>
</tbody>
</table>

Source: Ministry of Public Health (49).

Patient satisfaction surveys also serve an important regulatory purpose, whereby they are used to verify the information entered into the system. Furthermore, these surveys have turned into a channel for grievance uptake; 77% of grievances were reported via these phone calls, as shown in Figure 17 (retrieved from EPHRP 2017 dashboard) (49).

Conducting patient satisfaction surveys in PHC centres involved in the EPHRP was reported as relatively easy, since the population is defined and the denominator is known. In contrast, the feasibility of conducting such surveys in other centres within the National PHC Network (not involved in the EPHRP) remains questionable. For instance, PHC centres undergoing accreditation are required to do a patient satisfaction survey once or twice a year; yet this survey is not standardized across all PHC centres. Although the Ministry of Public Health has designed a template for this purpose, many PHC centres have opted to develop their own surveys. Efforts should be made to ensure better use of survey results by PHC centres and the Ministry of Public Health to enhance service provision. In the remaining centres (outside the National PHC Network), patient satisfaction surveys are voluntary and each centre has its own template. Conclusively, Phoenix, with its comprehensive electronic medical record and distinctive features, can help scale up the health information system in the PHC centres. The Primary Health Care Department is looking forward to expanding the information system network so that the electronic medical record will become accessible across all health centres in Lebanon. The development of this health information system is considered an important milestone in the expansion of the National PHC Network and eventually in the achievement of universal health coverage.

**Figure 17. Sources of reported grievances**

Source: Ministry of Public Health (49).
10. Policy considerations and way forward

Table 13 provides a list of the policy priorities highlighted by the different stakeholders interviewed.

**Table 13. Policy priorities highlighted by stakeholders**

<table>
<thead>
<tr>
<th>Priorities</th>
<th>Type of respondent</th>
<th>Health system level and arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish the needed incentives and strategies to ensure a functional</td>
<td>General Director</td>
<td>All levels</td>
</tr>
<tr>
<td>gatekeeping system in the Lebanese context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish how best to integrate community-based health insurance within</td>
<td>General Director</td>
<td>All levels</td>
</tr>
<tr>
<td>the broader health system in Lebanon to achieve universal health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>coverage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutionalize processes and competencies needed to support multi-</td>
<td>Order of Nurses</td>
<td>Primary and secondary level; delivery arrangement</td>
</tr>
<tr>
<td>sectoral and interministerial collaborations for health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure policies are translated into operational plans and practical</td>
<td>Order of Nurses</td>
<td>Primary and secondary level; delivery arrangement</td>
</tr>
<tr>
<td>interventions with a strong follow-up mechanism to ensure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sustainability of initiatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address the shortages in human and financial resources</td>
<td>PHC Coordinator Ministry of Public Health</td>
<td>Primary level; governance arrangement</td>
</tr>
<tr>
<td>Ensure vaccination and family planning are brought to the forefront as</td>
<td>PHC Coordinator Ministry of Public Health</td>
<td>Primary level; governance arrangement</td>
</tr>
<tr>
<td>top priorities as a result of the Syrian crisis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reassemble PHC teams in such a way that they become led by general</td>
<td>PHC Coordinator Ministry of Public Health</td>
<td>Primary level; governance arrangement</td>
</tr>
<tr>
<td>practitioners or family medicine physicians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengthen interdisciplinary collaboration in PHC</td>
<td>PHCC Director</td>
<td>Primary level; delivery arrangement</td>
</tr>
<tr>
<td>Build a robust health information system and set standard indicators at</td>
<td>PHCC Director</td>
<td>Primary level; delivery arrangement</td>
</tr>
<tr>
<td>the national level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct network mapping between different and same levels of care in</td>
<td>PHCC Director</td>
<td>Primary level; delivery arrangement</td>
</tr>
<tr>
<td>order to make services more accessible and comprehensive and to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>improve patient and information flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure the Ministry of Public Health provides financial coverage for the</td>
<td>PHCC Director</td>
<td>Primary level; delivery arrangement</td>
</tr>
<tr>
<td>services provided by PHC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Build the capacity of and provide training for primary care providers</td>
<td>Instructor of Clinical Family Medicine</td>
<td>Primary and secondary levels; governance and delivery arrangements</td>
</tr>
<tr>
<td>Expand the National Accreditation Programme to include more PHC centres</td>
<td>Instructor of Clinical Family Medicine</td>
<td>Primary and secondary levels; governance and delivery arrangements</td>
</tr>
<tr>
<td>Shift from vertical programmes to family practice</td>
<td>Instructor of Clinical Family Medicine</td>
<td>Primary and secondary levels; governance and delivery arrangements</td>
</tr>
<tr>
<td>Improve monitoring through proper documentation and collection of</td>
<td>Instructor of Clinical Family Medicine</td>
<td>Primary and secondary levels; governance and delivery arrangements</td>
</tr>
<tr>
<td>performance indicators and establishing a unified health information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish a national strategy for PHC, approved by the Lebanese Parliament</td>
<td>PHCC Director</td>
<td>Primary level; delivery arrangement</td>
</tr>
<tr>
<td>Establish a role for the Ministry of Information and leverage media to</td>
<td>PHCC Director</td>
<td>Primary level; delivery arrangement</td>
</tr>
<tr>
<td>increase the visibility of PHC centres and market their services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measure the impact of accreditation through impact assessment and</td>
<td>PHCC Director</td>
<td>Primary level; delivery arrangement</td>
</tr>
<tr>
<td>standardized outputs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leverage PHC centres' success stories to build agility</td>
<td>PHCC Director</td>
<td>Primary level; delivery arrangement</td>
</tr>
</tbody>
</table>

Continues…
Based on the stakeholders' inputs and the key gaps identified in the report, the following subsections list the priorities that need to be addressed at the governance, financing and delivery arrangement levels of the health system in order to strengthen PHC in Lebanon.

10.1 Governance arrangement level

- Create the right mix of incentives for both providers and patients to enable a functional gatekeeping system in the Lebanon context. Also, ensure transportation, information, communication and other logistics for referrals are put in place for effective two-way referrals.
- Leverage incentive systems that link contractual agreements, regulations, accreditation, and performance indicators to strengthen PHC performance.
- Develop a set of standardized national performance indicators for PHC in order to improve reporting on structure, processes and outcomes and in order to encourage benchmarking among PHC centres. This should be coupled with systems to counter data manipulation and unintended consequences.
- Strengthen PHC accreditation process and standards and ensure mechanisms are in place to sustain quality beyond accreditation.
- Establish a coherent human resources strategy that provides strategic direction for recruitment, retention, performance improvement and capacity-building of the PHC workforce.
- Develop decision support standards and revise clinical practice guidelines for PHC.
- Conduct standardized community needs assessment at the national level.
- Ensure continuous efforts to integrate community and citizen engagement as a central component of a PHC approach to enhance accountability, transparency and responsiveness of the PHC system.
- Ensure better integration of programmes and projects initiated by development partners within the overarching vision for PHC.
- Promote intersectoral collaboration in order to address the social and environmental determinants of health.
- Institutionalize processes and competencies needed to support interministerial collaborations for health.
- Ensure mechanisms are in place to translate policies into operational plans and practical interventions with proper follow-up to ensure sustainability of interventions.
- Institutionalize monitoring and evaluation as part of the national health information system.
10.2 Financing arrangement level

- Reprioritize government budget and give precedence to PHC in light of emerging epidemiological changes and health challenges facing Lebanon.
- Help secure sufficient financial resources to support expansion and scale-up of PHC.
- Link PHC contractual agreements to performance indicators and accreditation to improve quality of care, reporting and benchmarking.
- Consider how best to integrate community-based health insurance within the broader health financing system to progress towards universal health coverage.
- Encourage the international humanitarian community to meet the funding requirements to sustainably respond to the Syrian refugee crisis in Lebanon.
- Promote systems that can generate accurate and reliable information on PHC expenditures to facilitate evidence-informed decision-making and enhance transparency and accountability of government.
- Leverage health technology assessment programmes to guide priority setting and ensure cost-effectiveness of interventions implemented in PHC.
- Shift from vertical programmes to family practice, and reassemble PHC teams such that they become led by general practitioners or family medicine physicians.
- Integrate medical and social care provision, with a particular focus on youth-friendly services and programmes such as those related to child abuse, domestic violence, HIV/AIDS and drug addiction.
- Build a robust health information system to improve documentation, monitoring and collection of performance indicators.
- Develop a unique patient identifier and a unified medical record across all levels of care.
- Focus on vaccination and family planning as top priorities brought to the forefront by the Syrian crisis.
- Scale up mental health services by addressing challenges such as the lack of trained human resources.
- Conduct network mapping between different and same levels of care in order to make services more accessible and comprehensive and to improve patient and information flow.
- Promote longitudinal continuity with primary care team across separate illness episodes.
- Market the services of PHC centres and increase their media visibility, and engage the Ministry of Information to promote PHC and enhance people's trust in its services.

Further consideration should be given to position PHC to become a central component for achieving the health and health-related Sustainable Development Goals (SDGs). This would entail reorienting PHC plans, programmes and activities to ensure they align with the SDGs and their targets; raising awareness and educating PHC workers, managers and leaders about the SDGs; and mobilizing collaborations across social, economic, and political domains to align and prioritize efforts to achieve the health and health-related SDGs.

10.3 Delivery arrangement level

- Expand the number and scope of services provided by the National PHC Network and ensure they reflect the needs and priorities of the population.
- Adopt a hub-and-spoke service delivery model in PHC, whereby each PHC centre (or hub) is linked to satellite units (i.e. nearby dispensaries or spokes) to ensure effective and efficient coordination of care at the primary level.
- Ensure availability of a sufficient, well trained, gender-sensitive and motivated health workforce.
- Scale up the accreditation of PHC centres and monitor the quality of services on a regular basis.
- Scale up the EPHRP to the entire National PHC Network.
- Shift from vertical programmes to family practice, and reassemble PHC teams such that they become led by general practitioners or family medicine physicians.
- Integrate medical and social care provision, with a particular focus on youth-friendly services and programmes such as those related to child abuse, domestic violence, HIV/AIDS and drug addiction.
- Build a robust health information system to improve documentation, monitoring and collection of performance indicators.
- Develop a unique patient identifier and a unified medical record across all levels of care.
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### Annex 1. PRIMASYS Lebanon interview guide

**Whenever applicable, ask participants if they can refer you to any document supporting their claims**

<table>
<thead>
<tr>
<th>Steps/points</th>
<th>Questions</th>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td>Break the ice. Explain case study objectives and reason for interview (5 mins)</td>
<td></td>
</tr>
</tbody>
</table>
| **Reform** | • In your opinion, what are the major milestones that have shaped PHC reform in Lebanon over the past ten years?  
• What are the key programmes that have been implemented and integrated in PHC over the past few years?  
• What were the notable successes or challenges? |  |
| **Financing** | • To what extent have these changes (mentioned above) led to decreasing out-of-pocket expenditures? Household catastrophic health expenditure?  
• What do you think should be done to increase governmental budget for PHC? |  |
| **Human resources for health** | • Which HR specialists are in most shortage at the level of PHC?  
• What is being done to address these challenges?  
  – Standards of professional education  
  – Recruitment and retention plan  
  – Public-private partnerships  
• What incentive systems are in place for PHC staff? To what extent are these incentives being implemented?  
• To what extent does on-site training respond to the capacity needs of staff?  
• Is supervision and performance review of PHC personnel done on a regular basis? |  |
| **Delivery of primary health care services** | • Are primary health care facilities sufficient in number and distributed across all counties?  
• Are necessary drugs, equipment and supplies regularly available to provide care in PHC centres?  
• How can PHC become a better gatekeeping system? How should referral systems work in the context of Lebanon?  
• To what extent is the current primary care system responsive to the health needs of the community?  
  – Systems to ensure users’ views are respected and accounted for in treatment decisions  
  – User perception surveys being conducted to determine user satisfaction with primary care services  
• To what extent is the utilization of primary care services acceptable and equitable? Are the utilization data available disaggregated across social and economic categories?  
• Is service utilization of the Lebanese affected by the increased utilization of the Syrian refugees? What is being done to address this? |  |
| **Policies and regulations** | • Are there explicit national policies related to PHC?  
• To what extent is community needs assessment conducted at the national level and within PHC centres?  
• To what extent are the voices of citizens and civil society reflected in health service organization and planning? To what extent are these functional and effective?  
• How is the Ministry of Public Health regulating PHC centres?  
• What is the role of development partners (donors and NGOs) in PHC planning and administration?  
• Are there policies supporting the deployment of primary care teams with clearly identified roles (rather than stand-alone front-line providers) and responsibility for a specified population? |  |
| **Information system** | • Are there standardized performance indicators for all PHC centres?  
• Is there reporting of outcome indicators to the Ministry of Public Health? What are the indicators being reported to the Ministry of Public Health?  
• To what extent are current information systems reliable? And what needs to be done? |  |
<table>
<thead>
<tr>
<th>Steps/points</th>
<th>Questions</th>
<th>Stakeholders</th>
</tr>
</thead>
</table>
| Priority setting | • What needs to be done at the level of services and programmes to strengthen PHC? What topics will have to be addressed?  
• In your opinion, how has the PHC system responded to the large influx of refugees? How successful was it? What are the current challenges?  
• To what extent will PHC be an instrumental component to progress to universal health coverage? What is the missing link?  
• What are the priorities for the PHC system with respects to achieving the health-related Sustainable Development Goals?  
• Are there institutional mechanisms to engage other sectors (water, agriculture, education, transportation etc.) for action on social and environmental determinants of health?  
• Is there a concerted effort to coordinate horizontal health programmes and vertical health programmes?  
• Are there prospects for integrating medical and social care provision (youth-friendly services, programmes related to child abuse, domestic violence, HIV/AIDS and drug addiction)? |              |
| Closing notes | • Is there anything you would like to add or comment on further regarding the primary health care system in Lebanon?                                                                                          |              |
Annex 2. Overview of stakeholders participating in the semistructured interviews

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Main constituency represented</th>
<th>Level of health system at which active</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director-General</td>
<td>Ministry of Public Health (policy and planning; governance; PHC reform)</td>
<td>All levels and arrangements</td>
</tr>
<tr>
<td>Head of Statistics</td>
<td>Statistics Department, Ministry of Public Health</td>
<td>Primary and secondary level; financing arrangement</td>
</tr>
<tr>
<td>Monitoring and Evaluation Officers</td>
<td>EPHRP, Primary Health Care Department, Ministry of Public Health</td>
<td>Primary level; governance and delivery arrangement</td>
</tr>
<tr>
<td>IT Project Manager</td>
<td>Information Technology Department, Ministry of Public Health</td>
<td>Governance arrangement</td>
</tr>
<tr>
<td>Instructor of Clinical Family Medicine</td>
<td>Private non-profit hospital</td>
<td>Primary and secondary level; governance and delivery</td>
</tr>
<tr>
<td>Order of Nurses</td>
<td>Nursing profession</td>
<td>Primary and secondary level; delivery arrangement</td>
</tr>
<tr>
<td>PHC Central General Coordinator</td>
<td>Primary Health Care Department, Ministry of Public Health</td>
<td>Primary and secondary level; governance arrangement</td>
</tr>
<tr>
<td>PHC Coordinator (Mount Lebanon Governorate)</td>
<td>Malnutrition Programme, Ministry of Public Health</td>
<td>Primary level; governance arrangement</td>
</tr>
<tr>
<td>PHC Coordinator</td>
<td>Accreditation and NCD Programmes, Ministry of Public Health</td>
<td>Primary level; governance arrangement</td>
</tr>
<tr>
<td>PHC Centre Director</td>
<td>PHC centre led by NGO</td>
<td>Primary level; delivery arrangement</td>
</tr>
<tr>
<td>PHC Centre Director</td>
<td>PHC centre led by NGO</td>
<td>Primary level; delivery arrangement</td>
</tr>
</tbody>
</table>
References


54. Strategic Plan for the Medium Term (2016 to 2020). Beirut, Lebanon: Ministry of Public Health; 2016 (http://www.moph.gov.lb/en/Pages/0/.../2016-%D8%A7%D9%84%D8%A7%D9%85%D9%86-%D9%88%D8%AF%D9%8A%D8%AF-%D8%A7%D9%84%D8%BA%D8%B4%D9%8A%D8%A1-%D8%A7%D9%84%D8%A7%D9%85%D9%86-%D8%A8%D8%A7%D9%84-%D8%A7%D9%84%D8%B1%D8%A8%D8%AC%D8%A7%D8%AA-%D9%81-%D9%84%D8%A7-%D8%A7%D9%84%D8%A7%D9%85%D8%A7%D9%84-%D8%A7%D9%84%D8%A7%D9%85%D8%A7%D8%B3%D8%A7%D8%B1-%D9%84%D9%85-%D9%84-%D8%A7%D9%84-%D8%B4%D9%8A%D8%A9-%D8%A7%D9%84-%D8%A8%D8%A7%D9%84-%D9%82%D8%B3%D9%88%D8%AD-2016-2020, accessed 2 December 2017).


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This case study was developed by the Alliance for Health Policy and Systems Research, an international partnership hosted by the World Health Organization, as part of the Primary Health Care Systems (PRIMASYS) initiative. PRIMASYS is funded by the Bill & Melinda Gates Foundation, and aims to advance the science of primary health care in low- and middle-income countries in order to support efforts to strengthen primary health care systems and improve the implementation, effectiveness and efficiency of primary health care interventions worldwide. The PRIMASYS case studies cover key aspects of primary health care systems, including policy development and implementation, financing, integration of primary health care into comprehensive health systems, scope, quality and coverage of care, governance and organization, and monitoring and evaluation of system performance. The Alliance has developed full and abridged versions of the 20 PRIMASYS case studies. The abridged version provides an overview of the primary health care system, tailored to a primary audience of policy-makers and global health stakeholders interested in understanding the key entry points to strengthen primary health care systems. The comprehensive case study provides an in-depth assessment of the system for an audience of researchers and stakeholders who wish to gain deeper insight into the determinants and performance of primary health care systems in selected low- and middle-income countries.