

LEBANON:

a primary health care case study in the context of the COVID-19 pandemic

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Executive summary

In public health emergencies such as the COVID-19 pandemic, primary health care (PHC) plays a critical role in prevention, preparedness and response, and in ensuring continuity of access to essential health services.

This case study examines the role of PHC in the context of the COVID-19 response in Lebanon, a lower-middle-income country in the Eastern Mediterranean Region where the health system is already weakened by multiple unprecedented crises. The findings are drawn from a document review. The case study explores the response in Lebanon throughout 2020 and 2021 across three PHC components – primary care, multisectoral collaboration and community engagement – as codified in the Astana Declaration (WHO, 2018; Rasanathan & Evans, 2020).

Since the first confirmed cases of COVID-19 were reported in Lebanon in February 2020 (WHO, n.d.), resources and efforts to increase surge capacity primarily focused on the preparedness and response of hospitals. The role of the PHC Department at the Ministry of Public Health (MoPH) and the wider PHC network was not recognized explicitly in the national preparedness and response plans. The government did not capitalize on the country's large network of PHC centres to supplement and augment the national response, and consequently the likelihood of community transmission increased.

However, despite the lack of integration of the PHC network in the formal pandemic response, primary health centres contributed to awareness-raising, health promotion and education related to the COVID-19 pandemic, reinforced and emphasized the importance of screening and early detection, and managed to sustain essential PHC services while also prioritizing staff safety. PHC centres also demonstrated innovation in their responses through segregating care pathways, leveraging telemedicine, and engaging in outreach activities conducted

through several virtual channels.

Nonetheless, the absence of a national strategy on how to engage PHC centres during public health emergencies and inadequate PHC-specific guidelines and resources resulted in significant variations in practices across the centres. This raised equity concerns and undermined efforts to promote a coherent and unified PHC response. Furthermore, underinvestment in the PHC network has manifested in the inadequacy of primary care and public health integration efforts. There have been inefficient linkages and referrals across different levels of care, inadequate prevention and promotion activities at the community level, and weak multisectoral collaboration to effectively address the health, social and economic consequences of the pandemic, particularly among the most vulnerable population groups. Additionally, the lack of formal integration of the PHC network into municipal-level responses (with no clearly defined roles and responsibilities) has meant that opportunities were missed to build synergies and leverage the resources and capacities of PHC centres to help overcome significant financial, technical and administrative gaps. This hindered the overall effectiveness of the municipal response in ensuring local implementation of national-level policies and measures.

The COVID-19 pandemic provides a unique opportunity for transformational health system change in Lebanon, with PHC at the core of such transformation, in line with full realization of the Astana Declaration.

Introduction and national context

In public health emergencies, PHC plays a critical role in preparedness and response, and in ensuring continuity of access to essential health services (WHO, 2020; OECD, 2021). PHC also has a role to play in improving the equity of efforts, through the effective involvement of communities as partners (UHC Partnership, 2021). The Declaration of Astana on Primary Health Care acknowledges that a PHC approach empowers people and communities, addresses

the determinants of health in a multisectoral way, and ensures strong primary care as the core of integrated service delivery with essential public health functions (WHO, 2018).

Yet, a PHC strategy based on the Astana Declaration has largely been overlooked in addressing the COVID-19 pandemic. Primary services have not been sufficiently supported to conduct surveillance and response or to undertake community-based care with sufficient confidence in infection prevention and control (IPC) and effective referral mechanisms (Rasanathan & Evans, 2020). Gaps in PHC implementation have weakened the ability of countries to detect and respond to the outbreak, and to maintain the functionality of essential health services (Barkley et al., 2020).

PHC as conceptualized in the Astana Declaration focuses on three critical components: 1) primary care; 2) multisectoral collaboration; and 3) community engagement. A deeper focus and more integrated approach across these components could lay the groundwork for addressing COVID-19 (WHO, 2018). While previous research has assessed experience on one of these components, few efforts have sought to review national performance across all three inter-related and synergistic components. The objective of this study is to examine the role of PHC in the COVID-19 pandemic response in Lebanon throughout 2020 and 2021 across all three components codified in the 2018 Astana Declaration.

Method

Analytical framework

We adapted the World Health Organization (WHO) Operational Framework for PHC to guide the analysis for this study (WHO, 2020). The adapted framework is presented in Table 1.

Table 1. Framework for analysing the role of PHC in the pandemic response

Component	Description	
National context	Political commitment and leadership Governance and policy frameworks Engagement of communities and other stakeholders Funding and allocation of resources Recent sociopolitical and economic factors influencing PHC network	
How primary care and essential public health functions are responding to COVID-19	Essential public health functions PHC preparedness for COVID-19 PHC response: scaling up and managing COVID-19 related services Continuity of essential services in PHC	
How multisectoral policy and action are responding to COVID-19	Addressing broader health determinants and working	
How communities are responding to COVID-19	Engaging and communicating with communities effectively and leveraging community resources	









Data collection

A case study approach was employed. Data were collected on the different components of the Framework using a comprehensive document review.

We searched PubMed and Google Scholar for published research papers and reports using the following search strategy: (novel coronavirus OR COVID-19 OR SARS-COV-2) AND (primary care OR primary healthcare OR community OR family medicine OR outpatient OR ambulatory) AND (Lebanon OR Lebanese). We also searched the websites of governmental bodies, ministries and public agencies for national-level reports, legislations, plans and documents. In addition, we searched the websites of key intergovernmental organizations (e.g., United Nations Development Programme (UNDP), United Nations High Commissioner for Refugees (UNHCR), WHO and World Bank) for relevant studies. Finally, we reviewed key media outlets for relevant news articles on the pandemic response at the PHC level.

National context

Lebanon is a lower-middle-income country located in the Eastern Mediterranean Region with an estimated population of 6 million individuals (including around 1.5 million Syrian refugees and 250 000 Palestinian refugees). It is a parliamentary democracy with a largely centralized administrative system, in which the administrative regions have no power and the municipalities have only limited power and funds in practice notwithstanding regulative intent to secure their financial and administrative autonomy (European Committee of the Regions, n.d.; Harb & Attalah, 2015).

Since the 1970s, Lebanon has endured civil wars, economic downturns and political instabilities. These crises have played critical roles in shaping the current health care sector in the country, which is characterized by a public–private partnership with several sources of funding and channels for service delivery (Ammar et al., 2016) (see Table 2).

Table 2. Overview of key selected indicators for the health sector in Lebanon

Indicator	Results	Source
*Demographic and socioeconomic determinants		
Total population	4.5 million Lebanese citizens and approximately 1.5 million refugees	WHO 2017
Sex ratio: male/female	50.2/49.8 = 1	World Bank, n.d.
Population growth rate	-0.8% (2021)	World Bank, n.d.
Population density (people/km2)	662 (2021)	
Life expectancy at birth	79 (2020)	World Bank, n.d.

	I	I
Infant mortality rate	6 deaths/1000 live births (2020)	World Bank, n.d.
Under-5 mortality rate	7 per 1000 live births (2020)	World Bank, n.d.
Maternal mortality rate	46 deaths/100,000 live births (2018)	
Immunization coverage under 1 year	Oral poliovirus vaccine (third dose) (OPV3) (94%) (2019) Pentavalent vaccine (third dose) (PENTA3) (91%) Measles containing vaccine (first dose) (MCV1) (91%)	World Bank, n.d.
Ratio of debt to gross domestic product (GDP)	135.01% (2020)	World Bank, n.d.
Health system*		
Major health financing entity	Private sector (71%)	MoPH 2019
% of beds in private hospitals	82.4% (majority are contracted by MoPH)	IMF, n.d.
Current Health Expenditure (CHE) per capita	US\$ 663.05 (2019)	Health system*
Total health expenditure as % of GDP	8.65% (2019)	WHO, 2017
Public spending on health out of total government spending	5.8%	WHO, 2017
Government budget allocated to MoPH	2.73% (2018)	World Bank, n.d.
% total public sector expenditure on PHC	~5%	
Out-of-pocket payments as proportion of total expenditure on health	33.54% (2019)	World Bank, n.d.
Voluntary health insurance as proportion of total expenditure on health	15.8% (2018)	WHO, 2017
% of uninsured population	Over 50% (lack any form of insurance)	MoPH 2019
Health workforce (per 10 000 people)	Physicians: 33.3 (2019) Nurses and midwives: 38.6 (2019)	
Social determinants of health*		
Income or wealth inequality (Gini coefficient)	86.1% (2016)	World Bank, n.d.
Literacy rate in Lebanese adults	95% (2018)	
Poverty rate among the total population	55% (2020); (compared to 28% in 2019)	World Bank, n.d.
Extreme poverty (food poverty)	23% (2020); (compared to 8% in 2019)	
Population using the Internet	84% (2020)	Hamadeh et al 2021
Percentage of mobile cellular subscriptions (per 100 people)	63% (2020)	MoPH, 2019

Note: *Some numbers may have changed as a result of the current political and economic crises in Lebanon.









Political commitment and leadership

The longstanding civil war in Lebanon (1975-1990) led to a decrease in government revenues and an increase in public debt. This weakened the public sector and resulted in the rapid growth of the private sector (Kronfol, 2006; Hamadeh et al., 2021). To regulate the proliferation of private service providers in health care and regain its stewardship function, the MoPH embarked on several reforms in line with the Alma-Ata Declaration (WHO & UNICEF, 1978). These reforms include the establishment of public health programmes targeting communicable and noncommunicable diseases (NCDs) and reproductive health; the launch of the national Epidemiological Surveillance Unit (ESU); and strengthening and expansion of PHC (Hamadeh et al., 2021). Nonetheless, the lack of political and economic stability resulted in inadequate funding for the public sector (ibid.).

Governance

In 1996, the MoPH established its National PHC Network in partnership with nongovernmental organizations (NGOs) and other private entities. Through this network the MoPH aimed to regulate and improve access to effective, quality health care, particularly among the most vulnerable people (Hemadeh et al., 2020) (Fig. 1). The network caters to the needs of all beneficiaries residing in Lebanese territories (MoPH, 2020a).

Over the years, the MoPH has expanded the network across all eight provinces to reach 245 PHC centres, of which 59% are in rural areas. The network serves more than 1 million people annually, including both vulnerable Lebanese and Syrian refugees (ibid.). These PHC centres are operated by several entities, such as the MoPH, the Ministry of Social Affairs (MoSA), NGOs and municipalities, although the majority (68%) are owned and managed by NGOs.

Fig. 1. An overview of the National PHC Network Source: The authors, drawing on data from MoPH website (nd)

The MoPH has established a special agreement with the PHC centres within its national network that does not involve financial transactions (Fig. 2). Furthermore, as part of its commitment to strengthening the quality of PHC in the country, the MoPH initiated a national PHC Accreditation Programme in 2009, which led to the accreditation of 52 PHC centres as of June 2018 (Hemadeh et al., 2020).

The historically weak referral system in Lebanon hindered the integration and coordination of care between PHC centres and hospitals even before the pandemic. This situation has been further complicated by the dominance of the private health sector, and means that the PHC network faces obstacles in acting as an effective gatekeeper to regulate access to secondary and tertiary care levels.

Fig. 2. Contractual agreement between MoPH and PHC centres

Source: The authors. Financing

The health care system in Lebanon is largely financed by the private sector and out-of-pocket expenditures. Around half of the Lebanese population are insured through either public or private health insurance, mainly for treatment. The remaining half have no form of health insurance coverage and thus are eligible for coverage by the MoPH, which serves as an "insurer of last resort" for hospital care and expensive treatments, further draining the already limited public funds (WHO, 2017). While private out-of-pocket expenditure has decreased significantly over the years (from 60% in 1998), it still accounts for 33.1% of total health expenditure (ibid.).

Despite efforts to expand the public health sector, the government allocated a meager 2.73% of its budget to the MoPH in 2018 (MoPH, 2019). Moreover, the MoPH spends approximately 5% of its budget on PHC services (while 79% is used to reimburse private contracted hospitals) (Hamadeh et al., 2021) (Fig. 3). The MoPH also relies heavily on international

donors to fund certain programmes related to PHC (ibid.).

Fig. 3. MoPH budget allocation

Source: The authors, drawing on Hamadeh et al. 2021

Furthermore, the present social safety net system in Lebanon is weak, fragmented and poorly targeted (Karam et al., 2015). This limits the impact on poverty alleviation and the eradication of regional disparities (ibid.).

who worked in more than one PHCC at a time (Table 2).

The least commonly employed staff were FM physicians

Engagement of communities and other stakeholders

To promote community engagement, community advisory groups are expected to uphold the standards set for the PHC network. These committees nominally meet every six months to discuss the pertinent health needs of the community and then inform their respective PHC centre of these health needs. However, the committees are neither always present nor always active; their success depends on the commitment of the PHC centre's administration to actively involve the community in service planning and delivery. As such, the integration of community and citizen engagement is still lacking in Lebanon as a central component of the PHC approach (WHO, 2017).

Recent sociopolitical and economic factors influencing the PHC network

Over the past decade, Lebanon has witnessed a massive influx of over 1 million Syrian refugees as a result of the humanitarian crisis in that country, with Lebanon recording the highest number of refugees per capita in the world (Ammar et al., 2016; WHO, 2017). The refugee crisis has placed a tremendous burden on Lebanon's health care system in general and the PHC sector in particular, as Syrian refugees

constitute 47% of all those who access care through the National PHC Network (Hamadeh et al., 2021) (Fig. 4).

who worked in more than one PHCC at a time (Table 2).

The least commonly employed staff were FM physicians

(13.7%), midwives (31.1%) and IT staff (32.1The ability of the public healthcare sector to withstand such shocks can be attributed to its collaboration with local and international organizations and stakeholders to provide the needed financial and technical support to cater to the needs of Lebanese and Syrian refugee residents through the national PHC network. Additionally, the MoPH worked with NGOs such as, YMCA, for many years to provide medications for chronic conditions free of charge (Isma'eel et al., 2020).

Despite efforts to maintain resilience, the health care sector has been crumbling due to recent unprecedented political and economic crises (Isma'eel et al., 2020). Currently, the health care sector is under pressure due to three economic factors: loss of purchasing power of patients; capital control measures and curbs on international transfers; and devaluation of the Lebanese currency against the US dollar by more than 90% (Mjaess et al., 2021). Furthermore, public spending decreased by 7% in 2020 compared to 2019, while social protection disbursements decreased by 2% (Maktabi & Zoughaib, 2020) (Fig. 4).

The economic crisis has had a devastating impact on the operation of the health system in the country. In 2019, it was estimated that private hospitals were owed a sum of US\$ 1.3 billion by the government; debts that have yet to be settled (Devi, 2020). Health care workers have suffered pay cuts, deficiencies in equipment supplies and unemployment, with subsequent massive migration out of the country. At the PHC level, existing budgets allocated to the national network for procurement of vaccines, chronic and essential drugs, and reproductive health supplies are not being transferred or disbursed









by the Ministry of Finance due to lack of available funds. At the same time, the PHC Department at the MoPH has not received funding since 2019 (Hamadeh et al., 2021). This, in turn, has reduced the capacity of PHC centres and the MoPH to purchase medical supplies, equipment and medication.

In the face of rapidly increasing operational costs, PHC centres were forced to cut salaries by half, turn full-time positions into part-time, stop the importation of expensive supplies, and work with limited electricity and water supplies due to subsequent shortages in gasoline and diesel in the country. Additionally, recent political events and the resulting socioeconomic consequences have increased the proportion of Lebanese people living below the poverty line (Di Peri, 2020), with approximately 55% living on less than US\$ 3.84 a day (UN Lebanon, 2021). This has shifted the burden of medical ambulatory care towards low-cost services offered by PHC centres, which is reflected in the 6% annual increase in the number of patient visits and 5.7% increase in the total number of patients over the past year (Bizri et al., 2020). Amidst the decline in resources and increase in operational costs, this increase in demand threatens the capacity of PHC centres to continue providing basic services for both the Lebanese and refugee populations. Finally, the unprecedented explosion in Beirut on 4 August 2020 further stretched the already overburdened health care system, with the destruction of several hospitals and PHC centres negatively impacting access to health care services.

Fig. 4. An overview of key sociopolitical and economic factors influencing the National PHC Network.

How primary care and essential public health functions are responding to COVID-19

At the onset of the pandemic in 2020, the MoPH issued a COVID-19 Health Strategic Preparedness and Response Plan. This was designed to scale up preparedness and response capacities in Lebanon for prevention, early detection and rapid response to COVID-19, as required under the International Health Regulations (MoPH, 2020b). The Operational Plan encompassed three lines of defence to build surge capacity, primarily focusing on the preparedness and response of public and private hospitals (Box 1), with a lack of recognition or explicit role for the PHC Department at the MoPH and the National PHC Network (MoPH, 2020c).

With the designation of Rafik Hariri University Hospital (RHUH) as the first line of defence for COVID-19, all international and national resources were diverted towards supporting the COVID-19 activities of this hospital (and later to other hospitals and medical testing facilities). This resulted in even limited resources for primary care (Hamadeh et al., 2021). The hospital sector was also prioritized for supplies of personal protective equipment (PPE) and testing facilities (Rawaf et al., 2020; Hamadeh et al., 2021).

First line:

RHUH, the largest public hospital in Lebanon, was selected as a primary reference hospital for diagnosing and managing suspected and confirmed cases of COVID-19.

Second line:

Nine regional public hospitals were selected based mainly on their location (at least one hospital was selected in each geographical area).

Third line:

Private hospitals called to accept patients once public hospitals reached capacity. However, no mechanism was set out for coordination between the two sectors, leaving the public sector primarily responsible for the treatment of COVID-19 patients.

Source: MoPH, 2020c.

Box 1. Lines of defence within the COVID-19 Operational Plan

Through the COVID-19 Health Strategic Preparedness and Response Plan, the MoPH worked closely with the relevant authorities and other partners to build strong capacity to prevent, prepare, detect and respond to any potential outbreaks of COVID-19 (MoPH, 2020b). Although the Plan highlighted the need to maintain routine health service provision as well as to ensure adequate staffing for a surge in patient care needs, it did not provide clear guidance on how these aims could be achieved. Implementation of the Plan was monitored and evaluated at regular intervals by the MoPH, and a progress report was shared regularly with the National Committee for COVID-19 to highlight progress and level of operational readiness (ibid.).

Essential public health functions

The government responded to the COVID-19 outbreak throughout 2020 and 2021 through a multi-tiered approach. Within less than a week after detecting the first case in Lebanon in February 2020, the MoPH launched a national communication strategy (Khoury et al., 2020). Awareness-raising campaigns, educational materials, videos and messages targeting different age groups were disseminated by the MoPH on multiple media platforms to educate people on COVID-19 prevention in communities (MoPH, 2020d). Furthermore, a national plan, which aimed to promote mental health and reduce stigma against people who tested positive for COVID-19, was implemented in partnership with the WHO and the United Nations Children's Fund (UNICEF) (MoPH, 2020d).

Surveillance systems were activated by the MoPH and organizations such as the Lebanese Red Cross and WHO (MoPH, 2020b; 2020c), with subsequent training provided accordingly. Active case detection at points of entry and health facilities was also established and an information system was developed to collect information related to the diagnosis and treatment of COVID-19 cases from all hospitals. Nonetheless, Lebanon faced challenges due to the absence of a unified health care information system between all health facilities and limited national capacity for surveillance and random mass testing at large

scale, which hindered real-time data-informed decisions (El-Jardali et al., 2020).

The availability of COVID-19 testing services was limited at the onset of the pandemic (Bizri et al., 2021). Initially, the RHUH was the only institution approved to conduct COVID-19 polymerase chain reaction (PCR) testing. However, as the number of cases increased in the country, other public hospitals and medical centre laboratories were certified to conduct testing too (ibid.). The MoPH followed a targeted testing approach at the beginning of the pandemic in 2020 by testing symptomatic and exposed patients, quarantining positive symptomatic patients at a designated facility, and isolating asymptomatic people at home (Khoury et al., 2020). As cases became more widespread, and in the absence of technological tools and a national health registry, the MoPH collaborated with local municipalities and communities to trace cases manually and enforce home isolation (ibid.).

Despite efforts to control the spread of the virus. however, various shortcomings were noted in the pandemic response. On 15 March 2020, the government declared a state of public health emergency in Lebanon and enforced the first stay-at-home order and movement restrictions. The country was initially successful in containing the viral spread due to the enforcement of strict measures and initial public compliance with these orders (Kharroubi & Saleh, 2020). However, the government could not sustain this success and by July 2020 all public restrictions were lifted and airports were reopened (Abi-Rached et al., 2020; Al Sayah, 2020). Confirmed cases of COVID-19 increased following these decisions, which pushed the authorities to extend the public restrictions more than five times between July 2020 and April 2021 (Makhoul et al., 2021) (Fig. 5).

Fig. 5. COVID-19 situation and movement restrictions in Lebanon (February 2020 to March 2021)

The absence of a coherent and long-term national strategy to address the social and economic impact of the pandemic was among the key factors contributing to the failure of stay-at-home orders and other public restrictions and the re-emergence of cases (Abi-Rached et









al., 2020). Amidst the unprecedented economic crisis, it was challenging for the Lebanese government to implement economic measures or financial protection packages to provide assistance to populations in need, including the daily informal, low-paid private service sector and the self-employed whose economic situation deteriorated by the day (ANND, 2020). The lack of financial support aggravated noncompliance with public health measures and movement restrictions, which consequently led to an exponential rise in COVID-19 cases to a peak of 6,154 daily confirmed cases on 16 January 2021 (WHO, n.d.). In May 2021, Lebanon recorded the highest total confirmed deaths per million population among countries of the Eastern Mediterranean Region (WHO, n.d.) Fig. 6. An overview of the Lebanon's pandemic response and health outcomes(January 2019 to September 2020)

PHC preparedness for COVID-19

Efforts to increase health system capacity have largely focused on hospitals and laboratories while bypassing the role of primary care as the first line of defence to contain the spread of COVID-19 in communities. During the early phases of the pandemic in 2020, the National PHC Network was ill-informed on how to fulfil its role and ill-equipped to provide care while protecting staff and patients against further spread of the virus. Moreover, PHC providers had either no or insufficient training in infectious disease prevention and control, lacked confidence, and required education on inform COVID-19 prevention and management. Although the PHC Department at the MoPH and the National PHC Network were not explicitly integrated and actively engaged early on in the formal pandemic response, the PHC Department continued to provide guidance and support to PHC centres within the Network. This was achieved through regular communications and close follow up and monitoring at the field level by PHC coordinators, specifically on issues related to IPC, patient screening and prioritization of essential services provided. Between April and May 2020, a total of 243 health care providers from 175 PHC centres received on-site and

online training sessions delivered by the PHC Department, WHO Lebanon and the Order of Nurses on preventive measures at PHC centre (MoPH, 2020). The trainings were also extended to dispensaries outside the PHC Network. The PHC centres within the National Network developed new modalities for work and service delivery to simultaneously manage the pandemic response and maintain essential care services (see Table 3). For example, all PHC centres implemented social distancing measures and mandated the use of face masks. Where applicable, they designated isolation areas within or in the vicinity of the centre. Additionally, around 37% of PHC centres established a single entry system for patients to minimize the risk of infection (WHO EMRO, 2020). It is worth noting that, in the absence of a national PHC-specific strategy and PHC-tailored guidelines and protocols relating to the COVID-19 pandemic response (except for the screening protocol), the aforementioned measures were not uniformly applied across the PHC centres. Unfortunately, there has not been any formal or informal review of the scale and effectiveness of the measures or pooling of experience across governorates for ongoing learning and adjustments. The national monitoring and evaluation framework for the COVID-19 pandemic response also lacks PHCspecific metrics.



Table 3. Primary health care preparedness and response during COVID-19 in 2020 and 2021

Activities	Supported by PHC Department	Self-initiated by PHC centres	Not provided
Staff preparation			
Educating and training PHC workers about COVID-19 and the use of PPE	X		
Equipping PHC centres with PPE and other IPC supplies	Х		
Shift in workload management			
Requiring patients to call in advance before arriving at PHC centre		X	
Introducing or extending the use of telephone, email or social media platforms (e.g., WhatsApp) to raise awareness and provide virtual consultations		x	
Adjusting working hours of PHC centres and PHC staff		Х	
Reducing number of staff present at PHC centre		Х	
Limiting number of patients allowed to enter PHC centre at the same time		Х	
Limiting number of visitors allowed to accompany a patient to PHC centre		Х	
Advising elderly patients on chronic medication to send younger relatives to collect their medications from PHC centre		Х	
Providing home visits for elderly and vulnerable patients unable to attend PHC centre		Х	
Prioritizing essential service provision	Х		
Developing innovative roles for community pharmacists and allowing task-shifting			Х
Structural and organizational changes			
Creating designated areas for suspected COVID-19 patients		Х	
Enforcing mask use and social distancing measures within PHC centre		X	
Establishing single entry system for patients to access PHC centre to minimize risk of transmission		Х	
Providing add-on payments for PHC providers			Х
Extending the duration of prescriptions (e.g., to six months) and providing home delivery of medication to avoid the need to visit PHC centre in person		Х	
COVID-19-related services			
Disseminating awareness messages about COVID-19 preventive measures and vaccination plans to patients and the community	Х		



Identifying and protecting individuals and population groups particularly vulnerable to infection and/or at risk of severe illness and death		Х	
Screening patients who attend PHC centre using rapid questionnaire and temperature checks	Х		
Providing referrals for testing, home isolation and hospital admission	X1	X1	
Helping in quarantine of suspected COVID-19 cases		Х	
Offering nasopharyngeal and throat testing to symptomatic suspected cases	X2	X2	
Providing daily testing outside PHC centre			Х
Caring for people experiencing mild symptoms		Х3	
Providing follow-up care for confirmed cases		Х3	
Helping to track and trace confirmed cases		Х3	
Enhancing existing surveillance			
Administering COVID-19 vaccines	X4	X4	
Establishing outreach mechanisms as needed to ensure delivery of essential care services (e.g., consultations via online platforms, telephone and email)		Х	
Providing psychological and social support to patients to adapt to COVID-19 context		X*	

Notes: 1Directives were to refer to the nearest PCR testing facility; however, a challenge was that PHC centres were not linked to specific testing facilities, and thus, the referrals were not well structured.

2Testing, isolation and tracing were not primarily performed in PHC facilities. At a much later stage in the pandemic, PCR screening was introduced to a few selected PHC centres. Some PHC centres owned by large NGOs designated some of their PHC centres for PCR testing.

3Minor contribution by PHC centres (main role assigned to municipalities).

4Vaccines were primarily being administered in designated hospitals; at later stages, 12 PHC centres (mostly those that are part of a hospital and few in remote areas) were selected to provide immunization services for AstraZeneca vaccine.

Source: Activities adapted from OECD (2020) and subsequently tailored to the Lebanese context; responses are derived from document review.

PHC response: scaling up and managing services related to COVID-19

The PHC Department at the MoPH has been engaged in the development and dissemination of COVID-19-related messages as well as information, education and communication (IEC) materials. In May 2020, PHC centres in the National Network initiated screening of patients using a triage questionnaire provided by the PHC Department (WHO, 2020). A two-tiered screening process was adopted: the first level of screening was limited to temperature checks and three oral questions that were not documented, while the second level of screening documented more extensive information regarding suspected cases of COVID-19 via the Primary Healthcare Network Information and Communication System (PHENICS). The PHC Department was informed of any suspected cases through the PHENICS system. PHC Coordinators would then contact the respective PHC centres to check if they had followed up with suspected cases (although the capacity to continue this step diminished over the course of the pandemic in 2020 and 2021). Between May 2020 and April 2021, 14 715 individuals were screened in 145 PHC centres (55% Lebanese, 43% Syrian and 2% others), of which 12% were considered as suspected cases of COVID-19 (WHO Lebanon, 2021).

The majority of PHC centres did not engage in testing, isolation and tracing activities. Instead, patients were referred to the nearest PCR testing facility. However, PHC centres were not linked to specific testing facilities and thus, the referrals were not well structured. The absence of clear referral pathways from the PHC level to testing facilities and hospitals led to huge variations in practice across PHC centres.

Following confirmation of a positive case at a testing facility, the MoPH was informed and then it initiated the follow-up process. The respective Emergency Committee at the municipality level was alerted to trace cases manually and to enforce home isolation. Patients with mild symptoms were followed up by the municipality team and provided with home care if needed. Those at high risk were subsequently referred to the hospital. While PHC centres were not obliged to follow up with confirmed cases, some PHC centres (especially those managed by municipalities) were involved in the process (as part of the subnational response orchestrated by the municipality). With changes in case definitions, alongside shortages of testing kits and overloaded hospitals, PHC centres adjusted their approach by advising suspected cases who attend the centre to home-isolate and self-refer to the hospital if serious symptoms occur; in some instances, patients were referred to the Municipal Crisis Cells for follow up.

The screening, triage and referral process suffered from several weaknesses during the period under review. In terms of screening, not all PHC centres adhered to the protocol of completing the COVID-19 patient assessment sheet on the PHENICS system. Moreover, several PHCs stopped screening patients on arrival. Connectivity issues were also reported as a barrier for real-time and complete data reporting by some of the PHC centres, while various PHC centres reported a lack of timely updates on changes to the screening and referral protocols.

Patients were unable to gain access to

secondary hospital care due to inadequate links between PHC centres and hospitals and the lack of a planned referral system and feedback loop between them. Test results were not communicated to the PHC centres, which hindered efforts to follow up with patients on the status of their treatment, isolation and contact tracing. The cost of COVID-19 testing in private facilities was another barrier that prevented many patients from being tested, particularly as governmental hospitals became overwhelmed and fears arose regarding transmission.

The PHENICS system at PHC centres does not feed into the national epidemiological surveillance system at the MoPH; instead, PHC centres use another system, the District Health Information System (DHIS- 2), to report on communicable diseases to the ESU. The presence of separate platforms for PHENICS and DHIS II complicated the process for the PHC staff who were required to enter data separately. Moreover, the PHENICS system was perceived as a one-way communication channel from PHC centres to the MoPH with no feedback loop, which challenged PHC providers' ability to communicate and receive real-time information during the pandemic.

As part of efforts to strengthen surveillance for non-seasonal influenza viruses, the ESU and the PHC Department at the MoPH launched an integrated COVID-19 and influenza-like illness surveillance system at PHC centres. The approach used for the routine influenza sentinel surveillance system is not to capture all suspected cases of influenza but only a systematic subset of influenza cases (WHO Lebanon, 2021). To support implementation, 12 centres were trained on case definitions and nine of them were supported by a team for swabtaking once per week in each PHC centre.

Beyond awareness-raising and screening of patients at PHC centres, the National PHC Network assumed no other major role in the pandemic response in 2020 and 2021. The Network was also largely absent from the









National COVID-19 Vaccination Plan (due to logistical and administrative issues). With the exception of 12 PHC centres that were later selected for vaccine administration (mostly those that are part of a hospital and few in remote areas), the role of PHC centres remained confined to providing communities with information about the safety and efficacy of vaccines and, in some cases, helping the elderly to register on the official online vaccination platform.

Additional activities and initiatives undertaken by the different centres within the National PHC Network were mostly self-initiated and dependent on the existing capacities and resources of the centre in question (Table 3). This raises equity concerns, as many PHC centres in remote facilities suffer from staffing and material shortages (Hemadeh et al., 2020), thus exacerbating the inequitable focus of resources on the richest areas of the country (Mount Lebanon and Beirut). There are also implications for the ability of the centres to sustain the provision of essential care services (see Figure 6), as well as for efforts to promote a coherent and unified PHC response that offers the same quality of services to all those in need of health care.

Continuity of essential PHC services

Despite the many challenges facing the PHC system in Lebanon, 86% of the PHC centres operating under the National PHC Network continued to accommodate patients during the pandemic in 2020 (Hemadeh et al., 2020). Furthermore, it has been reported that 36% of the vulnerable Lebanese, and displaced Syrian and Palestinian refugees were able to access subsidized PHC consultations in 2020 (UNOCHA, 2020).

Patient visits for essential services decreased significantly, however. Between January 2019 and September 2020, visits for essential services during the period of strict stay-at-home orders and other public restrictions declined by up

to 70%, depending on the type of health care service (Figure 6) (Hamadeh et al., 2021). Routine immunization activities were also severely interrupted (Bizri et al., 2020), with UNOCHA (2020) reporting that the number of children vaccinated in PHC centres and dispensaries almost halved. A recent study assessing the changes in utilization of routine immunization services in Lebanon's public and private sectors during the first few months of the pandemic in 2020 finds that utilization decreased by 31% at nationally (46.9% in the private sector and 20% in the public sector). The most notable decreases were observed for OPV and measles vaccines (Mansour et al., 2021). Dentistry and other services including nutrition counselling were also impacted because of COVID-19 and the economic situation in the country.

Such decreases in service utilization have been attributed to a reduction in care-seeking behaviours, driven by several factors including patient anxiety about acquiring the virus, mobility restrictions and forced curfews, educational campaigns encouraging patients to avoid using health services where possible, and financial constraints due to a combination of reduced income and inflation.

There have been substantial concerns of collateral damage to the health of the population due to the drop in service utilization (Rawaf et al., 2020). To overcome this, particularly for prioritized essential services (such as chronic disease management and routine immunizations), PHC centres engaged in advocacy and outreach activities to encourage patients to seek care at their facilities. Patients were contacted via telephone or WhatsApp to inform them of the safety measures at the PHC centre, as well as remind them of their pending routine checkups. Those with chronic diseases were followed up and wellness checks were conducted over the course of the pandemic in 2020 and 2021. Some PHC centres revised their prescription renewal and medication distribution processes by extending the duration of prescriptions while others provided home delivery of chronic

medication.

To promote the uptake of immunization services, PHC centres conducted awareness sessions with parents (via telephone, in-person and WhatsApp groups) on the importance of vaccinating children and followed up daily with those parents whose children were behind on their immunization schedule. The use of WhatsApp and telephone for virtual consultations was also adopted by many centres as part of their efforts to ensure the continuation of essential care without in-person visits. More advanced telemedicine options (e.g., videoconferencing or remote patient monitoring) were not always available, however, given the poor Internet coverage across the country (amidst the recent fuel and electricity crises), poor data infrastructure and low digital health literacy levels among certain groups of the population, particularly the elderly and refugees.

The Beirut blast in August 2020 occurred at the time of the COVID-19 public health crisis, a protracted humanitarian disaster, currency devaluation and an economic meltdown that the country had been facing during the past year. Three hospitals, 12 PHC centres and the main MoPH warehouse were severely damaged in the blast, while functional hospitals were rapidly overwhelmed by injured people (Hamadeh et al., 2021). An assessment of 55 PHC centres in Beirut in 2020 shows that only 47% could still provide full routine services at the time (Al-Jazeera, 2020).

How multisectoral policy and action are responding to COVID-19

Box 2. Inter-ministerial Emergency COVID-19 Response Committee

Ministry of Public Health

Ministry of Interior and Municipalities

Ministry of Agriculture

Ministry of Foreign Affairs

Ministry of Social Affairs

Ministry of Education and Higher Education

Ministry of Public Works and Transport

Ministry of Defence

Ministry of Information

Disaster Risk Management Unit at the

Prime Minister's Office

An Inter-Ministerial Emergency COVID-19 Response Committee (Box 2), headed by the Prime Minister, was established in 2020 to monitor country-level activities and facilitate coordination with relevant ministries (Khoury et al., 2020; MoPH, 2020b, c). However, there were no representatives from the PHC Network within this Committee.

The Committee conducted regular meetings to assess the COVID-19 situation at the national level and issued recommendations to be adopted (MoPH, 2020b,

c). Yet the mandate and influence of the Committee

remains unclear, with uncertainties regarding how it functioned, particularly in terms of the extent of cooperation and the working methods.

The international community (i.e., intergovernmental and humanitarian agencies, notably UN agencies and WHO) played a vital role in the pandemic response in Lebanon, particularly in terms of securing PPE and essential supplies and in addressing the social and economic burden of the pandemic, including among vulnerable populations like refugees. This assistance was essential in the absence of governmental social safety nets in a country with a privatized model of social welfare and under financial strain (Dejong, 2020). A description of the key roles of the international community is provided in Annex 1.

Municipalities also played an important role in the pandemic response in Lebanon throughout 2020 and 2021. Based on a circular issued by the Ministry of Interior and Municipality (MoIM), the Unions of Municipalities were responsible for developing a detailed plan to assist municipalities financially, logistically and with the necessary human resources (MoIM, 2020; UN Habitat, 2020). The Circular









further encouraged local authorities to create a municipal operations room to manage the COVID-19 response plan and identify suitable locations for isolation centres. Additionally, municipalities were put in charge of overseeing food security in their respective towns (Disaster Risk Management Unit, 2020; MoIM, 2020; UN 2020a). In response, various structures were established as part of the municipal chain of command to support local implementation of national-level public health policies and measures (see Annex 2. for an overview of key structures established as part of the municipal response). However, significant financial, technical and administrative gaps hindered the municipal response (see Box 3).

Box 3. Summary of key challenges in the municipal response

- Scarce transfers from the central government through the Independent Municipal Fund.
- · Lack of sufficient and skilled municipal staff.
- Municipalities were instructed at a national level to undertake COVID-19 measures beyond their capacity, with key challenges related to insufficient Municipal Police to implement stay-at-home orders and other public restrictions, coupled with a lack of sufficient personnel within the Internal Security Forces.
- Absence of political autonomy.
- Engagement of the MoSA and security forces in the implementation of COVID-19 measures was perceived as weak and invisible.
- Difficulty in mobilizing community volunteers for awareness-raising and providing social support, which increased the burden on municipalities.
- Delays and inaccuracies in the case numbers uploaded to the Inter-Ministerial and Municipal Platform for Assessment Coordination and Tracking (IMPACT) platform.

Source: UN Habitat, 2020.

The National PHC Network was not formally integrated into the municipal response in terms

of clearly defined roles and responsibilities. Nor were primary care representatives included in the various response committees/crisis cells established as part of the municipal chain of command to enforce the implementation of COVID-19 public health measures at local level. This created a missed opportunity to build synergies and leverage the PHC Network's resources and capacities to augment the municipal response and to help overcome some of the identified gaps and challenges.

Despite the lack of formal involvement and recognition, the PHC centres within the National Network were involved on an individual level depending on their own initiative and relationship with the municipalities. For example, some centres educated municipality members on the importance of isolation, quarantine and COVID-19 preventive measures, and they also collaborated with municipalities to identify isolation centres in the community. Other PHC centres distributed oxygen tanks and essential supplies received through donations to the municipality. It was observed that PHC centres that were operated by municipalities were more likely to be involved in the different municipalityled efforts including Municipal Crisis Cells. Beyond municipalities, some PHC centres collaborated with partners in the education sector to raise awareness about COVID-19 public health measures within school and community settings. However, these efforts were largely self-initiated and conducted on an ad hoc basis. Structured multisectoral coordination of PHC with public health, municipalities, community-based services and secondary care was lacking in the COVID-19 response in 2020 and 2021 Furthermore, it was reported that inadequate coordination between municipalities, NGOs, communities and PHC centres, as well as with national-level authorities, hindered the establishment of a consistent and reliable risk communication stream to eliminate mixed messages at local, subnational and national

Lebanon lacks proper and sustainable multisectoral collaborations. At the operational level, multisectoral collaboration has been limited to ad hoc interactions between professionals.

Although these interactions could be useful, they have not evolved into more systematic partnerships. Some of the reported challenges that hindered the multisectoral COVID-19 response during the period under review include fragmented authorities and multiplicity of actors in charge; competing interests and competition for resources; weak formal coordination structures that have clear mandates, roles and decision-making authorities; and limited resources and funding for implementation of the pandemic response measures. Furthermore, historically weak multisectoral collaborations have used siloed approaches, which have been exacerbated by administrative constraints, an absence of systems for data automation across sectors and actors, and a poor culture of information sharing. This meant that there were no previously established experiences or structures (beyond project-based initiatives which are short-lived) that could be leveraged or activated during the pandemic in 2020 and 2021 to facilitate multisectoral responses. However, this is changing with the development of IMPACT (the first e-governance platform), which aims to promote transparency and accountability in Lebanon. Looking ahead, there is a need to emphasise the importance of building on the lessons learnt so far, while acknowledging the need for multisectoral collaborations not only to address pandemics but also as a prerequisite for achieving the Sustainable Development Goals (SDGs).

How communities are responding to COVID-19

Engagement of and communication with communities took place at the PHC, municipality and national level throughout the COVID-19 response in 2020 and 2021 (see Annex 3 for a summary of the community response).

Community engagement activities varied across PHC centres and were dependent on each centre's available resources and self-motivation. However, the majority of PHC centres engaged with their communities to disseminate

health education and awareness messages on COVID-19, including updates on the vaccination deployment plan. These activities were primarily done in coordination with municipalities and volunteers. Some PHC centres also worked with schools, religious leaders, and community gatekeepers to spread health awareness messages.

Given that formal community needs assessments can be challenging and time-consuming to conduct during health crises, informal needs assessments were initiated by some PHC centres. Existing community advisory boards were activated or PHC centres coordinated with the Municipal Emergency Committees to identify individuals in need of essential supplies such as medication, respirators or food. Additionally, PHC centres reported receiving support from community members through monetary donations, and the provision of PPE and other essential medical supplies, although such engagement was not structured.

Despite these efforts there are gaps in efforts to engage the community and utilize community resources. While some PHC centres had active community advisory boards, many did not or failed to make use of them during the pandemic in 2020 and 2021. Another challenge relates to the lack of guidelines and protocols on how to engage with communities, including conducting community needs assessments. Respondents also noted that the capability of a PHC centre to effectively engage with communities was dependent on the willingness of municipalities and community members to cooperate. Many municipalities were initially reluctant to engage and were uncooperative with PHC centres while others did not understand the role of PHC in the pandemic. There is a need to strengthen community coalitions and to prepare municipalities for any future emergencies. Similarly, while volunteers played an important role in some of the PHC centres' outreach activities, it was challenging to recruit volunteers amidst the growing economic crisis and shortages of PPE.









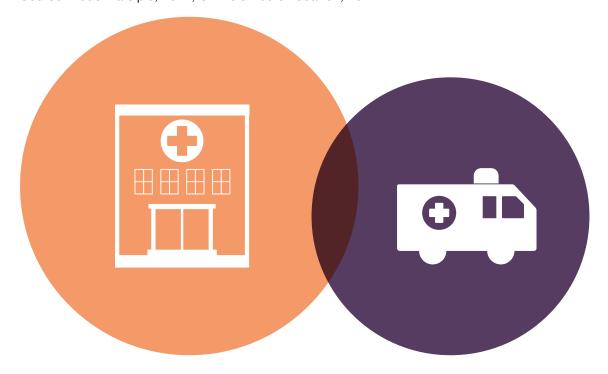
Unfortunately, the COVID-19 pandemic is much more than a health crisis – it has severe socioeconomic consequences too. With the Government of Lebanon unable to provide adequate social services or financial stimulus packages to affected populations and sectors, communities (including CSOs, faith-based organizations (FBOs), citizens, local NGOs) and volunteers quickly assembled themselves to fill the gaps by providing resources such as food, shelter, sanitation, educational materials and financial assistance (Abdo-Katsipis, 2022; UN Volunteers Lebanon, 2021) (see Table 4). Private businesses and nonprofit organizations also supported the local production of PPE and other necessary equipment to address shortages. Several fundraising campaigns were also facilitated through local TV channels where individuals donated their own money to offset the health, social and economic burden of the COVID-19 pandemic (Abdo-Katsipis, 2022).

While communities, volunteers, CSOs, FBOs, NGOs and private businesses played an instrumental role in the pandemic response in Lebanon throughout 2020 and 2021, more structured coordination and integration in the national pandemic response is needed to optimize the flow of resources and enhance the efficiency and effectiveness of the overall efforts. Furthermore, there was consensus among stakeholders on the need for greater efforts to systematically integrate community and citizen engagement as a central component of a PHC approach. Respondents were of the opinion that this would strengthen accountability, transparency and responsiveness of the PHC system to community needs.

Table 4. Overview of services offered by communities and volunteers

Type of services	Description
Social support and solidarity	Provision of psychosocial and monetary solidarity through community support, food delivery, financial assistance, educational support, advocacy, housing, and other support services to meet basic needs.
Emergency response	Contribution to response services including health care services, PCR testing, contact tracing, case management, mental health care, ambulance services, etc.
Pandemic preparedness	Delivery of health awareness activities, capacity-building, medical supplies, cleaning and hygiene kits, research and needs assessments.

Source: Abdo-Katsipis, 2022; UN Volunteers Lebanon, 2021.



Discussion and lessons learnt

With the rise in the number of COVID-19 cases in Lebanon in 2020 and 2021, efforts to increase surge capacity largely focused on preparing hospitals and intensive care units (ICUs). The National PHC Network was bypassed as the first line of defense, and subsequently PHC centres were provided with inadequate resources, information and support. This can be attributed to the historically low investments in primary health in Lebanon, which means that PHC remains one of the weakest links in the Lebanese health care system.

Investments are needed in the National PHC Network not only to make health systems more resilient to future public health emergencies, but also to better address the challenges of an aging population and the growing burden of chronic conditions in Lebanon. Recent findings affirm that investments in PHC improve equity and access, health care performance, accountability of health systems and health outcomes (Edelman et al., 2021). More importantly, a PHC approach

is considered the most practical, efficient and effective first step towards achieving universal health coverage (UHC) and the 2030 Agenda for SDGs (Barkley et al., 2020).

The COVD-19 pandemic provides a unique opportunity for transformational health system change in Lebanon, with PHC at the core of such a transformation, in line with the full realization of the 2018 Astana Declaration. This is particularly critical at a time when Lebanon is experiencing a devastating economic crisis, resources are severely depleted, capacities are constrained and the number of people living below the poverty line is rapidly rising, with no signs of improvement in the near future.

Table 5 highlights key recommendations for action at the governance, financing and delivery levels of the health system, building on the inputs of key respondents, emerging gaps in the PHC system and best practices from the literature review (Haldane et al., 2020; Huston et al., 2020; Desborough et al., 2021; Edelman et al., 2021; Peiris et al., 2021; Subba et al., 2021).

Table 5. Overview of key recommendations

Governance level

Mobilize strong political support, leadership and commitment to prioritize, invest in and endorse PHC as the core foundation for healthy and thriving communities in Lebanon.

Strengthen MoPH stewardship functions to harness existing PHC resources and capacities, coordinate and integrate efforts across the diverse response agencies (public sector, NGOs, private sector), and steer the overall health system response.

Clearly define roles and responsibilities of the PHC centres and providers in national and subnational public health emergency preparedness and response plans (including vaccine deployment plans), and establish lines of authority and reporting throughout the health system.

Develop a coherent strategy on how to mobilize PHC centres during public health emergencies, with written PHC-specific guidelines and protocols to guide key areas of practice (supported by adequate resources).

Secure commitment to establish formal and strong referral systems between PHC and secondary care by introducing health care reforms to make PHC centres the first point of contact (with clear feedback loops between hospitals and PHC centres) and clarify changes to transfer, transport and diversion policies during emergencies.









Integrate PHC centres as part of multisectoral response units/committees at both national, subnational and local levels with specific roles and responsibilities.

Ensure continuous efforts to integrate community and citizen engagement as a central component of a PHC approach to improve participation, accountability, transparency and responsiveness of the PHC system.

Strengthen coordination and communication between community members, municipalities, PHC centres and NGOs by establishing clear communication protocols and guidelines and robust coordination structures.

Promote better coordination among local and international NGOs, UN agencies and governmental organizations to reduce fragmentation, enhance the flow of resources, and increase the accountability, effectiveness and impact of public health responses.

Strengthen the surveillance function of primary care for improvement in the current public health surveillance system, including provision and coordination of real-time alert systems for managing infectious diseases and enabling planning and mobilization at the required scale nationally.

Improve PHC information infrastructure to facilitate its performance management (including data integration between the PHENICS and ESU; integration of PHENICS and DHIS II systems to minimize administrative burden; and expansion of PHENICS to all PHC centres and scaled-up functions as a patient management tool).

Establish a platform for real-time information sharing and transparent reporting, which is accessible by all key actors including PHC centres, hospitals and public health organizations. Upgrade the platform to address gaps in real-time information collection and sharing, especially at PHC centres.

Develop a unique patient identifier and a unified medical record across all levels of care.

Financing level

Introduce financing reforms to increase funding towards primary care and public health in addition to working towards achieving UHC.

Secure sufficient financial resources to support expansion and scaling up of the National PHC Network, community outreach activities, staffing, infrastructure and operational costs.

Protect the health budget for PHC from current or future spending cuts and ensure flexibility to enable PHC to remain functional in emergency situations.

Incorporate systems to accurately and reliably track information on PHC expenditures to enhance transparency and accountability and facilitate evidence-informed decision-making.

Delivery level

Evaluate the effectiveness of initiatives (including infrastructural changes and service configurations) that have been adopted by PHC centres in response to the COVID-19 pandemic and establish a plan to ensure that PHC lessons from the pandemic are embedded in ongoing and future public health crises and in building a more resilient PHC system.

Expand the number and scope of services provided by the National PHC Network and ensure they reflect the evolving needs of the population.

Strengthen the linkages between PHC services and public health and provide additional training to PHC staff as needed.

Integrate PHC services with mental health and social care services (including geriatric care, GBV, youth-friendly services) to enable more comprehensive and integrated care.

Expand accreditation of PHC centres and monitor the quality of services on a regular basis.

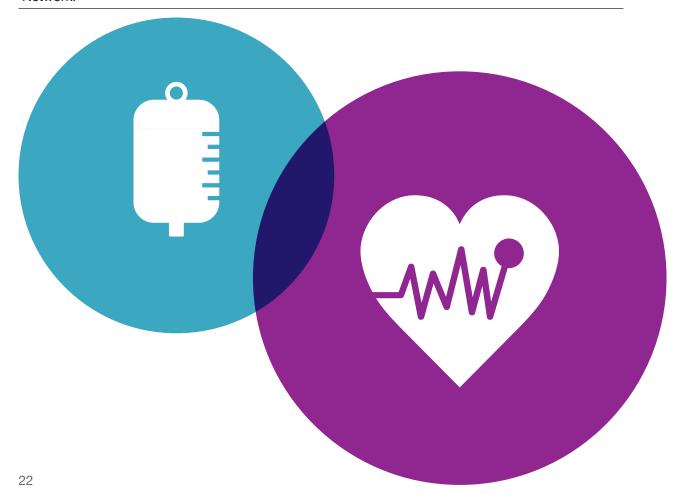
Develop formal protocols and explicit mechanisms for distributing supplies and equipment to PHC centres as needed to optimize continuation of essential service provision.

Design a coherent human resource policy and plan that provides strategic direction for education, recruitment, retention, performance improvement and capacity-building of the health workforce, including PHC. Encourage add-on payments for remote work and teleconsultations for PHC providers to allow them to cope with increased workloads (e.g., during emergencies).

Incorporate IPC and public health training for PHC providers in ongoing clinical education programmes.

Promote multidisciplinary teams with a diverse skills mix and optimal scopes of practice and reassemble PHC teams such that they become led by general practitioners or family medicine physicians.

Facilitate better integration of programmes and projects initiated by international NGOs and development partners into the overarching vision for PHC in Lebanon and ensure sustainability beyond programme/project duration, with plans to scale up learnings to the entire National PHC Network.











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Annexes

Annex 1. The role of the international community in the COVID-19 response in Lebanon

UNICEF, the United Nations Population Fund (UNFPA), WHO and UNHCR played a critical role in the COVID-19 response in 2020 and 2021 by procuring PPE and IPC materials for the National PHC Network as well as by providing training for health workers on IPC, triage and screening of suspected COVID-19 cases (Hamadeh et al., 2021).

WHO, with support from the European Union (EU), provided essential medication for chronic and acute conditions via the PHC Network to ensure continuity of care during the COVID-19 outbreak (WHO EMRO, 2020).

UNHCR deployed extensive resources to build dedicated hospital expansion facilities and to refurbish unused sections with new medical equipment (UNHCR, 2020). UNHCR also provided medication, PPE and IPC materials, and ICU supplies such as ventilators and beds to support collective efforts to build surge capacity (ibid.)

Together, UNDP, MoIM and MoPH supported municipalities in implementing the local public health response. Specifically, support was given to municipalities to establish isolation shelters and define a mechanism for self-isolation, including access for patients to support services such as IPC packages and medicines, social assistance, food, mental health and psychosocial support, as well as catering to people with special needs due to their age, gender and disability.

UN agencies and WHO responded to the indirect effect of the pandemic on the lives of the general public by addressing the rise in domestic and gender-based violence (GBV), and the increased marginalization of women from the labour market due to the elevated burden of care (UNESCO, 2020). Additionally, protection

services were made available for all children and GBV survivors, regardless of nationality, and psychosocial support services were provided to children and adolescents and COVID-19 infected people and their families (UNOCHA, 2020).

Various international and local NGOs organized the distribution of food parcels as part of efforts to overcome food insecurity (UN, 2020; UNOCHA, 2020).

The UN supported the Ministry of Education and Higher Education in developing remote learning techniques, and finding and addressing gaps to ensure the continuity of education.

The United Nations Relief and Works Agency (UNRWA), UNICEF and UNHCR were included in Lebanon's national COVID-19 vaccine deployment plan. They were allocated the task of enhancing communication and community engagement, supporting the MoPH in delivering vaccines to the refugee population and fundraising to safeguard additional doses for refugees.

Annex 2. Overview of key structures established as part of the municipal response

Regional Crisis Cells were created at the governorate level, which included representatives from Unions of Municipalities, different ministries and security forces in addition to the Lebanese Red Cross. The Crisis Cells circulated instructions and directives issued by the official authorities (Presidency of the Council of Ministers, MoPH, MoIM); followed-up on the implementation of measures in coordination with mayors and heads of Unions of Municipalities; devised action plans; supervised and coordinated health and social resources; and reported to official authorities on a regular basis (UN, 2020).

Local Emergency Committees were established at municipal level, which included representatives of the Municipal Councils (each municipality has a council that serves as the decision-making









body, ranging in size from nine to 21 members) and mayors and involved local CSOs, scouts, health associations and other community actors (e.g., volunteers, university medical students) (MoIM, 2020). The Emergency Committees were in charge of measuring the local human, financial, technical and logistical resources, raising awareness within the community, and implementing public health measures (MoPH 2020; UNOCHA, 2020).

Municipal Rapid Response Teams were formed, which included members of the Municipal Council and guards, civil society and volunteers from the local community. The Rapid Response Teams inspected isolation sites to ensure their preparedness and compliance with the MoPH

criteria, while local authorities governed the resourcing of these centres (MoIM, 2020).

Inter-Ministerial and Municipal Platform for Assessment Coordination and Tracking (IMPACT) is a Central Inspection Lebanon initiative to provide access to data collected in collaboration with different ministries (MoIM, MoPH and MoSA) and municipalities (Central Inspection Lebanon, 2021). As the first e-Governance platform in Lebanon, it is meant to provide the tools and the evidence to observe, control and audit the activities of the central and local government (Central Inspection Lebanon, 2021).



Annex 3. Community response during the pandemic in 2020 and 2021

Level	Activities	Gaps
National	 Development of a Risk Communication and Community Engagement (RCCE) Strategy and Action Plan by UNICEF in collaboration with the MoPH, Ministry of Education and Higher Education (MEHE), Ministry of Information (MoI), CSOs, the scientific community, NGOs and syndicates (UNOCHA, 2020; MoPH, 2021; WHO, 2021). Development and dissemination of technical guidance and the provision of support to ensure enhanced hygiene and handwashing practices by citizens, particularly in highly populated settings, and in public spaces and institutions at the country and local level (UNOCHA, 2020). Collaboration between MoI and WHO, UNICEF and UNDP to develop a "rumour log" in an effort to tackle misinformation on COVID-19. External Communication and Community Engagement Team of the National Coordinating Committee developed a two-phased communication plan to encourage vaccine uptake. Members of the Committee include the MoI, partners in the RCCE Strategy and Action Plan, and UNICEF (MoPH, 2021). 	 The government's message-centred approach to health communication relied largely on a unidirectional and didactic provision of information, which allows for misinterpretation of risks (Makhoul et al., 2021). There was an absence of clear, consistent and bidirectional communication between national authorities and locallevel entities. PHC centres reported receiving information from several, often conflicting, sources; delayed and noncontextualized information; a lack of PHC-tailored information (with information often passed on by word of mouth); and no established route for providing feedback about policies and measures. PHC centres were not involved in the External Communication and Community Engagement Team of the National Coordinating Committee.











Governorate

- COVID-19 Crisis Cells were established consisting of municipalities, mukhtars (village chiefs), NGOs, scouts, health associations, volunteers and religious leaders.
- Members of the Crisis Cells were mobilized, trained and actively engaged in educational and awarenessraising campaigns; initiatives aim at increasing capacity for testing, contact tracing, quarantine and the setting up of local isolation sites; and provision of social support (Disaster Risk Management Unit, 2020; MoIM, 2020; UNESCO, 2020; UNHCR, 2020; UNOCHA, 2020; Moawad & Andres, 2021).
- The MoIM put municipalities and local authorities in charge of conducting surveys, using social workers and volunteers from the community, to assess the health and socioeconomic conditions of the public, especially families whose main provider was a COVID-19 patient.
- Governorates, the MoSA and community organizations provided vulnerable families with aid in the form of material support and food parcels (Disaster Risk Management Unit, 2020; MoIM, 2020; UN Habitat, 2020).
- Refugees with a medical background received training on the isolation procedure.
- Community groups were created that were dedicated to isolation procedures and the provision of medical support (e.g., PPE, medicines, additional beds, ventilators and other advanced equipment) and food support to refugees (Moawad & Andres, 2020).
- UNHCR Lebanon trained PHC workers, many of whom are refugees, to integrate psychological first aid into their humanitarian and COVID-19 response activities, providing brief supportive and practical assistance to refugees (Lau et al., 2020). These trained refugee outreach workers delivered remote and in-person community-based psychosocial support services to over 4000 people up to June 2020 (Lau et al., 2020).
- UN agencies and FBOs and politically affiliated NGOs, especially in refugee settlements, created volunteer groups to conduct awareness-raising and sensitization campaigns and to support in disinfection activities (Meagher et al., 2021).

- The lack of mandates requiring the formal involvement of PHC representatives in the Municipal Crisis Cells and response committees made it challenging to orient and mobilize the National PHC Network to take part in COVID-19 response activities at municipal level, and position the PHC centres as key partners in responding to the pandemic.
- Inadequate coordination between municipalities, NGOs, communities and PHC centres, as well as with national-level authorities, hindered the establishment of a consistent and reliable risk communication stream to eliminate mixed messages at local, subnational and national levels.

PHC

- Informal needs assessments were initiated by some PHC centres to identify individuals in need of essential supplies such as medication, respirators or food.
- PHCs conducted awareness-raising and health education sessions on COVID-19.
- Community engagement activities varied across PHC centres and were dependent on each centre's available resources and self-motivation.
- While some PHC centres had active community advisory boards, many did not or failed to make use of them during the pandemic.
- Guidelines and protocols were lacking on how to engage with communities, and structured approaches were absent for conducting community needs assessments.
- Some municipalities were reluctant to cooperate with PHC centres.
- Difficulties were experienced in recruiting volunteers amidst the growing economic crisis and shortages of PPE.











