WHO support to the humanitarian response in Lebanon

2 years in review
(2014–2015)

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Foreword

Since 2011, Lebanon has received a massive influx of Syrian refugees. We now have about 1.5 million Syrian refugees spread throughout the country, and there is no single village in Lebanon that does not contain Syrian refugees. This represents a 30% increase in the population, and is the equivalent of 20 million refugees going to France. While 100 000 refugees across 28 Member States and among 500 million inhabitants in the European Union is considered a state of crisis, one can imagine the heavy burden on Lebanon and particularly on the health system.

Over the past few decades, the health care system in Lebanon has been exposed to multiple crises but has been able to absorb these shocks and pressures, and to sustain its functions and preserve its achievements – and sometimes even to improve on achievements. The experience of Lebanon in this regard challenges some well-established concepts in the discipline of public health, particularly those related to health systems assessment.

Despite the challenges, all the institutions in the health sector – both public and private – have kept functioning. Despite bearing a heavy financial burden, public hospitals are still providing services. Furthermore, there is no discrimination between Lebanese and non-Lebanese at the service-delivery level.

Evidence shows that provided services have been steadily increasing at both primary health care and hospital levels, allowing greater access to health services. Major outbreaks have been controlled (such as measles and hepatitis A) or prevented (including poliomyelitis, leishmaniasis and cholera). Risks, however, remain.

Lebanon was able to achieve Millennium Development Goals 4 and 5, related to child and maternal mortality. Although the risks for jeopardizing these gains remain significant, the Ministry of Public Health is working towards achieving the new Sustainable Development Goals.

Health is a unifying cause. Thanks to our humanitarian health partners, over the past 5 years the health-response support provided to the Syrian crisis in Lebanon has been able to fill important needs to maintain the health system and prevent collapse.

We count on WHO’s continued support to bridge humanitarian response to further the development of our health system. Health is a basic human right for all – but cannot be achieved if the health system and health sector are not continuously reinforced.

Preface

Five years into the crisis in the Syrian Arab Republic, Lebanon has experienced a population growth of more than 30%. By the end of 2015, 4.2 million Lebanese people were hosting around 1.5 million Syrian refugees and half a million Palestinian refugees. Lebanese host communities continue to provide support and basic services to refugee populations – mainly health care, education and shelter – despite their own growing needs and deteriorating resources. There is no doubt that the crisis in the Syrian Arab Republic has had severe repercussions on Lebanon’s overall economy and demography, and that the scale of the challenges faced by Lebanon requires a comprehensive combined humanitarian and development response.

The capacity of the health sector has been severely challenged by a 50% increase in demand for and utilization of existing health infrastructure and the continued heightened risk of outbreaks of communicable diseases. Moreover, the deterioration of the social and environmental determinants of health – including the increase in poverty, poor water and sanitation facilities and environmental pollution – negatively impacts the health status of refugees and host communities.

Financial support to the health sector in Lebanon has been insufficient to enable equitable provision of services to meet essential health needs at the primary, secondary and tertiary levels. Access to health care in the sixth year of the crisis remains of serious concern.

A more resilient health system is key to a sustainable response to the health needs of both refugee populations and host communities.

WHO Country Office in Lebanon has been strongly involved in ensuring that all vulnerable populations in Lebanon have access to primary and secondary health care services, and that communicable disease are monitored and outbreaks prevented, while bolstering resilience and building national capacity of government institutions and civil society.

This report highlights WHO’s contribution to the health sector response in 2014–2105, which has been possible due to the generous support of its humanitarian donors notably the European Union, the People’s Republic of China and the State of Kuwait. It demonstrates the Organization’s ongoing commitment to provide humanitarian assistance to those in need. With continuing donor support, we can do more, and do it better. Through targeted public health interventions designed to ensure equitable access for all segments of the population, WHO is serving the Lebanese and Syrian people in both the short and long term.

I extend my heartfelt thanks to all WHO staff, consultants and partners whose commitment, partnership and trust have helped WHO consolidate its integrated humanitarian and development response in 2014, 2015 and beyond. I also extend WHO’s appreciation to the Ministry of Public Health, which has played a pivotal role in leading the health response and embarking wholeheartedly in maintaining the health system in Lebanon.

Dr Gabriele Riedner
WHO Acting Representative
Lebanon
Part 1

General Context

1. Snapshot on Lebanon

1.1 Background

Lebanon counts around 4.2 million Lebanese, some 500,000 long-term Palestinian refugees and around 100,000 workers from South-East Asia. Starting from 2011, Lebanon hosts around 1 million Syrian refugees registered with the Office of the United Nations High Commissioner for Refugees (UNHCR), and some additional 500,000 displaced Syrian and Palestinian refugees from the Syrian Arab Republic. Lebanon encompasses a large mix of cultures, nationalities and religious groups. The official language is Arabic and the other main languages used in the country are French, English and Armenian. Table 1 summarizes the main population characteristics for Lebanon.

Table 1. Population characteristics

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth (2012)</td>
<td>82 (female)</td>
</tr>
<tr>
<td></td>
<td>78 (male)</td>
</tr>
<tr>
<td></td>
<td>80 (total both sexes)</td>
</tr>
<tr>
<td>Population growth rate (2013)</td>
<td>1.0%</td>
</tr>
<tr>
<td>Maternal mortality ratio per 100,000 live births (2013)</td>
<td>18</td>
</tr>
<tr>
<td>Infant mortality rate per 1000 live births (2009)</td>
<td>9</td>
</tr>
<tr>
<td>Adult literacy rate (aged 15+ years), both sexes (2009)</td>
<td>88%</td>
</tr>
<tr>
<td>Rural population (% of total population) (2014)</td>
<td>12%</td>
</tr>
</tbody>
</table>

Sources: Core indicators for monitoring and evaluation of health situation and health system performance, Ministry of Public Health, 2015

It is important to note that the total resident population in Lebanon has increased by more than 30% following the Syrian crisis, positioning the country as the host of the highest number per capita of displaced Syrians in the world.

Based on the World Bank classifications for 2014, Lebanon is an upper-middle-income country. The Gross Domestic Product growth rate has slowed considerably in the past few years. It is estimated that around 25% of Lebanese people live in poverty and some additional 3% have been pushed into poverty due to the Syrian crisis.

1.2 Health system characteristics

The health system in Lebanon is characterized by a dominant private sector, a very active nongovernmental sector, and a public sector that has been progressively regaining its leadership and regulatory role over the past two decades (Figure 1).

Currently, the majority of health service provision is provided by the private sector. In terms of tertiary health care, Lebanon counts 147 private hospitals with around 12,000 beds and 27 public hospitals with around 1,200 beds. Public hospitals benefit from the law of autonomy, which allows them relative flexibility in terms of management and administration as well as in fundraising.

In addition, there are around 920 primary health care (PHC) centres that provide packages of ambulatory (outpatient) health services ranging from drug dispensing to a comprehensive set of services including vaccination, management of childhood illnesses, reproductive health, non-communicable diseases, mental health and various acute conditions. The great majority of PHC centres are owned and managed by nongovernmental organizations; a few are owned and co-managed by municipalities, the Ministry of Public Health or the Ministry of Social Affairs. Around 435 PHC centres adhere to the Young Men’s Christian Association (YMCA) network for chronic medications, while only around 200 PHC centres belong to the Ministry of Public Health-supported network. Lebanon also counts around 250 laboratories that are not hospital-based, and high-technology equipment is readily available across the country. It is estimated that there are also around 9,000 physicians’ clinics, some 6,000 pharmacies and around 6,000 dental clinics in the private sector.

The distribution of health facilities favours the large cities to a significant extent. The health system is further characterized by a surplus of medical doctors and a severe shortage of nurses and paramedic staff, with the following estimates:

<table>
<thead>
<tr>
<th>Health professional</th>
<th>Per 10,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>31.9</td>
</tr>
<tr>
<td>Nurses</td>
<td>29.3</td>
</tr>
<tr>
<td>Midwives</td>
<td>3.83</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>16.8</td>
</tr>
<tr>
<td>Dentists</td>
<td>12.6</td>
</tr>
</tbody>
</table>

In addition, there are around 200 in Gov’t network

PHC centres

50 dispensaries
300 general
435 YMCA

PHC centres

200 in Gov’t network

Private sector

• More than 9000 cabinets
• 147 hospitals
• 12,000 beds

Private sector

• 27 hospitals
• 1,200 beds

Regulator, purchaser

Ministry of Public Health

Payers

Gov’t
Private insurance
National Social Security Fund
Humanitarian

Providers

PHC centres

50 dispensaries
300 general
435 YMCA

Hospitals

PHYSICIANS NURSES MIDWIVES PHARMACISTS DENTISTS

31.9 29.3 3.83 16.8 12.6

52% The Ministry of Public Health purchases health services from the private sector for around 52% of the population who are without health insurance.

40% The National Social Security Fund and government employees’ funds purchase services from the private and public sectors for around 40% of the population.

8% while private insurance purchases services for the remaining 8%.

Photo credit: WHO/P. Balladelli

The Ministry covers hospital stays and expensive medicines for non-insured Lebanese people through the programme for catastrophic illnesses, and has recently engaged into a prepaid set of services to be delivered to the most vulnerable Lebanese populations through the PHC network.
2. Impact of the refugee crisis on social determinants of health

2.1 Demographic change and related vulnerabilities

Since January 2015, with the Government’s decision to restrict the flow of refugees into Lebanon, the number of refugees has stabilized at 1.5 million of whom 1 067 785 are Syrian nationals registered as refugees with UNHCR. 50% of refugees live in informal tented settlements in some of the poorest areas of the country, and a significant proportion are classified as extremely vulnerable.

Of all registered Syrian refugees

- 26.5% are women of childbearing age
- 18.8% are aged under 5 years
- 53.3% are children, aged 0-17 years.
- 2.8% are aged above 60

Refugees have been permitted to settle throughout the country and are found across 1500 localities. However, an ongoing mapping exercise has highlighted 242 localities that are estimated to contain two thirds of vulnerable (poor) Lebanese and four fifths of registered Syrian refugees and Palestinian refugees (68%, 86% and 80%, respectively). These 242 localities represent only a sixth of the country, yet likely contain nearly 2 million vulnerable people as well as institutions under particularly high stress (Figure 2).

Figure 2. Time-series for Syrian refugees registered in Lebanon

<table>
<thead>
<tr>
<th>Total No. of Refugees</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2012</td>
</tr>
<tr>
<td>25,411</td>
</tr>
</tbody>
</table>

Some 67% of refugees rent basic apartments or homes, half of which are overcrowded with several families sharing limited space. Over 30% live in substandard and insecure conditions in makeshift shelters, tents, unfinished buildings, garages, warehouses and worksites. Access to clean water and sanitation and protection from the elements, in particular flooding, are constant challenges.

2.2 Socioeconomic impact

An assessment conducted by the World Bank estimated cumulative loss in government revenue for 2012–2014 at US$ 1.5 billion, as a result of decreased economic activity. Moreover, providing for the needs of refugees has impacted heavily on Lebanon’s public finances, increasing government expenditure on subsidies, public services and security while further compounding the negative economic consequences of regional instability.

For many of the poorest and most vulnerable communities, including displaced Syrian families and Lebanon’s long-term Palestinian refugees, daily life is increasingly dominated by poverty and debt, fewer cooked meals, rising waste and pollution, long queues at health centres, over-full classrooms, disease outbreaks, falling water quality and increased competition for work.

Poverty levels in Lebanon have been rising as a result of the Syrian crisis. In 2008, background poverty rates in Lebanon were assessed at 28.5% (based on a poverty line of US$ 4 per capita per day) (Figure 3). Since the crisis began, a further 170 000 Lebanese have been pushed into poverty, according to World Bank estimates.

Figure 3. Increased vulnerability of populations in Lebanon, 2014–2015

<table>
<thead>
<tr>
<th>Total extreme poor living with less than US$ 2.4 (Syrian, Lebanese, PRS, PRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
</tr>
<tr>
<td>664,590</td>
</tr>
</tbody>
</table>

PRS: Palestinian refugees from Syria. PRL: Palestinian refugees in Lebanon.


3. Impact of the refugee crisis on the health system

3.1 Increased health care needs

According to a vulnerability assessment conducted in 2013 among Syrian refugees in Lebanon registered with UNHCR, 33% of surveyed households reported having at least one member with a specific health need (non-communicable disease, permanent disability, temporary disability or other issue). In 10% of households there were members that needed support with the basic activities of daily living.6

The latest vulnerability assessment conducted in 2015 shows that 15% of surveyed households reported having at least one member who required primary health care but was unable to access it. Around 31% of households reported that at least one member required secondary health care but 28% were unable to access it, compared with 11% in 2014, chiefly because of the high cost (78%).7

Non-communicable diseases are evident across the displaced population particularly type 2 diabetes, renal failure, cardiovascular disease, hypertension, chronic obstructive pulmonary disease, cancer, musculoskeletal conditions and epilepsy. However, in view of the funding situation, there are currently few resources available to ensure continuity of treatment for chronic conditions. Patients with non-communicable diseases occasionally need to be hospitalized; however, their hospital care is not currently subsidized. This applies to people with asthma, diabetes, renal failure or cancer, among others.

The displaced population also presents with several other health service needs including for communicable diseases and reproductive health. According to the vulnerability assessment conducted in 2013, 41% of surveyed households among Syrian refugees had at least one pregnant or lactating woman.8 Limited funds are available for equitable provision of health services to meet related health needs at both primary and secondary health care level.

3.2 Access to health services for refugees

Syrian refugees have access to PHC services through the Ministry of Public Health PHC network (219 centres) across Lebanon, as well as through some Ministry of Social Affairs’ PHC centres, nongovernmental organizations’ clinics and other partners’ PHC centres, as well as mobile medical units. The Ministry of Public Health, United Nations Children’s Emergency Fund (UNICEF) and YMCA currently supply the PHC centres with vaccines, acute and chronic medications, staff support, running costs, and laboratory and medical supplies. In addition, displaced Syrians receive subsidized services at around 100 PHC centres, mostly within the Ministry of Public Health network. Some partners also provide similar subsidized services to vulnerable Lebanese as a way of mitigating potential sources of tension. There is, however, a large unmet need especially for patients with chronic diseases, cancers and other serious illnesses that are not currently covered.

Displaced Syrians have access to hospital care primarily through a network of 60 hospitals (public and private) across Lebanon contracted by UNHCR through a third-party administrator. The UNHCR scheme is limited to obstetric and life-threatening conditions, and currently covers 75% of hospitalization fees with the expectation that those persons registered as a refugee with UNHCR will cover the remaining 25%.

Antenatal care and delivery services constitute an important proportion of medical services provided to displaced Syrians and are largely subsidized by UN humanitarian assistance.

In terms of mental health, 3% of displaced Syrian households report having a member with a previously diagnosed mental health condition.9 One in 10 families of Palestinian refugees from the Syrian Arab Republic (10.5%) has at least one member with a physical or psychological disability.10 It is therefore important to expand access to mental health services.

Palestinian refugees from the Syrian Arab Republic are particularly vulnerable in terms of access to health care, with 99% of the population without health insurance cover and dependent on health services provided by the United Nations Relief and Works Agency for Palestinian Refugees in the Near East (UNRWA), including the provision of support for hospitalization.

7 Vulnerability Assessment of Syrian Refugees (VASyR) in Lebanon. WFP, UNICEF, UNHCR; 2015.
8 Syrian refugee and affected host population health access survey in Lebanon; July 2015. Johns Hopkins and others; 2015.
9 Profiling the vulnerability of Palestine refugees from Syria living in Lebanon. Beirut: UNRWA and AUBIL; 2015.

Overall, limited funds are available for ensuring equitable provision of health services to meet essential health needs at the primary, secondary and tertiary health care levels. Consequently, access to health care in the sixth year of the Syrian crisis in Lebanon remains a serious concern.

3.3 Health system challenges

The repercussions of the Syrian crisis in Lebanon on the health system and the population’s health have been significant, and are reflected through:

- Increased utilization of health services at the PHC level of around 50%, especially for maternal and child health-related conditions;
- Increased utilization of secondary and tertiary care of around 35%;
- Overstretched capacity of the Ministry of Public Health in terms of the health information system for monitoring health trends and risks;
- Increased risk of infectious disease outbreaks, especially vaccine-preventable diseases (poliomyelitis and measles) and waterborne diseases.
- Exacerbation of endemic diseases (tuberculosis and viral hepatitis);
- Re-emergence of vector-borne disease (leishmaniasis);
- Increased demand for non-communicable disease services (especially cardiovascular and mental health services);
- Negative impact on the social determinants of health (environmental health – mainly water and sanitation – shelter and poverty levels).

The health care expenditure necessary to restore the health system to pre-refugee access and quality levels was estimated by the World Bank at US$ 177 million in 2013 and US$ 216–306 million in 2014.
4. Humanitarian response

4.1 Background

The Government of Lebanon, UN agencies, national and international nongovernmental organizations have responded to the Syrian crisis in Lebanon, under the overall leadership of the Ministry of Social Affairs and UNHCR, and in close coordination with the donor community. Although the emergency cluster system has not been activated in Lebanon; several appeals have been launched for an inter-agency response since 2011. The humanitarian response included prioritization and targeted assistance across all sectors, with focus on the specific needs of women and children. A lot of support targeted government institutions that are most impacted by the refugee influx and host communities with a high concentration of Syrian refugees. Refugees have access to most basic services through public institutions.

UNHCR, with its mandate in Lebanon to protect, assist and facilitate solutions for refugees, focuses its activities on the overall coordination of the Syrian refugee crisis and on registration; protection, monitoring and outreach activities; resettlement and humanitarian admission; provision of cash grants; shelter; and access to health and education.

The Government of Lebanon adopted a policy paper in October 2014 setting three main priorities for managing the displacement situation:

- Reducing the number of individuals registered in Lebanon with UNHCR as refugees from Syria;
- Addressing the rising security concerns in the country and in municipalities;
- Sharing the economic burden by expanding the humanitarian response to include a more structured developmental and institutional approach benefiting Lebanese institutions, communities and infrastructure. It has also encouraged third countries to offer more resettlement and humanitarian admission opportunities for Syrian refugees.

4.2 WHO health lead

WHO Country Office in Lebanon has been greatly involved in ensuring that all vulnerable populations (Syrian and Palestinian, host communities and other nationals) have access to primary and secondary health care services, and that communicable diseases are monitored and outbreaks prevented, while bolstering resilience and building national capacity. The main objectives of WHO support are to:

- Lead coordination of the health sector response;
- Provide timely, up-to-date information on health trends, health systems, needs and response;
- Advocate for health in the humanitarian agenda;
- Prevent, detect and respond rapidly to infectious disease outbreaks;
- Provide technical assistance on key public health issues;
- Facilitate access to quality primary, hospital and referral health care services.

4.3 Humanitarian health sector leadership and coordination

The cluster system has not been activated in Lebanon. Coordination is organized at central and mohafaza (governorate) levels by central and regional thematic working groups.

The Health Working Group is chaired by WHO and co-chaired by UNHCR, with continuous coordination and collaboration between both. The chair is responsible for Health Working Group meetings: invitations, drafting the agenda and sharing the minutes. WHO is the technical support agency within the Health Working Group. The group includes more than 50 national/international nongovernmental organizations, government health sector institutions and UN partners, and meets once a month to jointly plan health programmes, set priorities, review activities and contribute to the identification of health trends, needs and gaps. A core group within the Health Working Group meets to discuss strategic issues every 2 weeks, before they are brought to the attention of the UN Country Team.

In parallel, each mohafaza has a regional working group on health that meets on a monthly basis. Subgroups on nutrition, reproductive health, mental health and psychosocial support have also been established at central and governorate levels.

Members of the health working groups at central and regional levels work in coordination and consultation to ensure that Syrian refugees and host communities of all ages and backgrounds throughout Lebanon have:

- Access to health awareness and preventive health activities;
- Continuous access to quality PHC services and packages;
- Equitable access and referral to secondary and tertiary health care and follow-up, including post-operative care and rehabilitation;
- Timely access to emergency care.

4.4 Donor funding channelled through the Lebanon Crisis Response Plan

During 2011–2013, response plans for the Syrian crisis in Lebanon were prepared on a 6-month basis by the humanitarian community operating in the country, with limited consultation with the concerned ministries. Plans targeted the most urgent needs observed in the field and focused mainly on essential and life-saving health needs of the displaced population. Since 2013, yearly appeals have included a greater emphasis on supporting the health needs of host communities in the areas most affected by the Syrian crisis.

In view of the protection of the crisis, the Government of Lebanon, with the support of the UN, started a two-track planning and appeal process in 2015. The first track, known as the Lebanon Crisis Response Plan (LCRP) 2015–2016, will serve as a transition into a second longer term track for 2017–2020. Both tracks will merge the humanitarian and stabilization components of crisis response into one integrated plan.

The Lebanon Crisis Response Plan (LCRP) 2015–2016 outlines a shift in the humanitarian approach, characterized by the Government playing a leadership role while seeking a participatory approach in decision-making. This shift requires full engagement from the concerned ministries to steer the humanitarian response in the direction of national priorities.

Local institutions (public, private and nongovernmental organizations) should be relied on for implementation while, at the same time, they should be supported, monitored and held accountable. With rare exceptions, these national institutions existed before the start of the Syrian crisis and have important experience dealing with turmoil and different kinds of conflicts and, most importantly, have long-term objectives and are expected to sustain their activities in the future.

In March 2015, the Minister of Public Health issued decision 1/421, which stipulates the creation of a national Health Steering Committee headed by the Ministry of Public Health. The Health Steering Committee’s responsibility is to set strategic directions for the health sector, prioritize health interventions and steer the allocation of resources within the health sector. The Committee reports to the Minister of Public Health and the national LCRP Steering Committee.

Part 2

WHO’s Contribution to the Health Response: Main Projects

5. Conflict reduction through improving health care services for vulnerable populations: the EU Instrument for Stability (EU-IfS) project

5.1 Background

The perception that Syrian refugees receive preferential treatment, perhaps due to humanitarian assistance directly targeting them, is coupled with a sudden increase in demand and utilization of health services resulting in long waiting hours and crowding at PHC centres. Added to this is the host communities’ fear of infectious disease outbreaks due to increasing numbers of refugees living in unsanitary informal settlements, as well as frequent rumours of disease outbreaks. These factors have contributed to a vicious cycle of increasing prejudice and stigmatization against the refugees and a reduced trust in PHC care by the Lebanese population.

The EU’s Instrument for Stability (IfS) provides a mechanism distinct from both humanitarian assistance and development cooperation. It is specifically suited to promoting conflict reduction in crisis or pre-crisis situations. IfS actions are used both to reassure the host population with visible support and thus reduce tension, while bridging humanitarian aid with development cooperation by strengthening existing governmental primary health infrastructure and systems. It serves to reassure the Lebanese population, while reinforcing government public service institutions.

In this respect, IfS aims to reinforce the EU’s objective in Lebanon of strengthening the state institutions’ credibility through the improved delivery of basic services to the citizens – in this case, by being able to provide for the health needs of the most vulnerable populations.

The IfS project was funded by the EU and implemented through UNHCR by WHO, UNICEF and International Alert as partners. WHO’s part consisted of three main components: to reinforce capacity of PHC centres; to reinforce communicable diseases monitoring and response; and to ensure essential equipment and medicines. The key achievements resulting from WHO support through the IfS are summarized in Table 2.

The project’s total budget: $14.2 million
Table 2. Key achievements resulting from WHO support through the IfS, by end 2015

<table>
<thead>
<tr>
<th>Component</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Component 1:</strong> Reinforcement of quality primary and secondary health care</td>
<td>Mother and Child Health Care initiative</td>
</tr>
<tr>
<td></td>
<td>Integration of mental health</td>
</tr>
<tr>
<td></td>
<td>Non-communicable diseases initiative</td>
</tr>
<tr>
<td></td>
<td>Training on the rational use of medicines, management of medicines and role of health workers</td>
</tr>
<tr>
<td></td>
<td>Training on the revised national guideline for Integrated Management of Childhood Illness (IMCI)</td>
</tr>
<tr>
<td></td>
<td>Training on emergency obstetrics care to improve delivery outcomes</td>
</tr>
<tr>
<td></td>
<td>Training on neonatal resuscitation and stabilization</td>
</tr>
<tr>
<td></td>
<td>Training on updated clinical management protocols for the most common health conditions in PHC centres</td>
</tr>
<tr>
<td></td>
<td>Training on the content of essential health packages to PHC centre teams</td>
</tr>
<tr>
<td><strong>Component 2:</strong> Reinforcement of communicable diseases monitoring, early warning and response system</td>
<td>Standard operating procedures updated for the response and surveillance of 43 selected diseases and hazards</td>
</tr>
<tr>
<td></td>
<td>9 newly developed surveillance guidelines in 3 languages</td>
</tr>
<tr>
<td></td>
<td>Training on standard operating surveillance and response procedures for priority notifiable diseases</td>
</tr>
<tr>
<td></td>
<td>Training on school-based surveillance and response system</td>
</tr>
<tr>
<td></td>
<td>Training on food safety principles and standard food sampling and inspection procedures</td>
</tr>
<tr>
<td></td>
<td>8 water laboratories established to monitor water quality and alert for any potential waterborne disease outbreaks</td>
</tr>
<tr>
<td><strong>Component 3:</strong> Equipping health facilities and supplying vaccines and medicines</td>
<td>6255 medical equipment items provided to 180 national PHC centres</td>
</tr>
<tr>
<td></td>
<td>Increased stock of essential medications for acute diseases</td>
</tr>
<tr>
<td></td>
<td>Distribution of 102 376 insulin vials to PHC centres</td>
</tr>
<tr>
<td></td>
<td>Provision of tuberculosis medications to the national tuberculosis programme</td>
</tr>
<tr>
<td></td>
<td>Provision of 10 000 ampules of Glucantime for the treatment of leishmaniasis to 12 leishmaniasis clinics</td>
</tr>
<tr>
<td></td>
<td>Provision of 264 medical equipment items to 8 hospitals to reinforce emergency obstetric and neonatal intensive care</td>
</tr>
<tr>
<td></td>
<td>583 chlorine barrels distributed throughout Lebanon in order to prevent and/or contain waterborne disease outbreaks</td>
</tr>
<tr>
<td></td>
<td>500 000 medical files, 20 000 vaccination cards and 100 000 pregnancy cards and other primary health care materials/forms printed and made available for use at all PHC centres</td>
</tr>
</tbody>
</table>

Photo credit: WHO/R. Ziade
5.2 Service delivery at the Ministry of Public Health

Through the EU-IfS project, the service delivery capacity of the Ministry of Public Health PHC network was increased. The project objectives included:

- Provision of medical equipment and supplies to PHC centres to cope with the extra workload attributed to Syrian refugees;
- Standardizing clinical management to improve health outcomes through updating national health care guidelines and training health care workers;
- Organizing awareness and outreach activities;
- Integrating new services at PHC centres, such as mental health services and early detection of non-communicable diseases.

The Ministry of Public Health expanded its network through the enrolment of 34 new PHC centres, to reach a total of 219 PHC centres by the end of 2015 (Figure 4).

**Figure 4. Increase in the number of functional PHC centres, January 2011–December 2015**

Through the EU-IfS, WHO provided necessary medical equipment and supplies to national PHC centres that had a documented increase in caseload. A total of 6200 medical equipment items were provided to 180 PHC centres, and 80 centres received additional reproductive health equipment, to reinforce capacity and enable a 40% increase in the utilization of health services representing around 400 000 patients (Figure 5).

**Figure 5. Equipment delivered to 180 PHC centres by WHO through EU-IfS, 2014–2015**

WHO ensured medications were provided in sufficient quantities to respond to acute shortages at PHC centres and dispensaries, namely medications for chronic illnesses, tuberculosis and acute respiratory infections. As part of expanding the early detection and treatment of non-communicable diseases at PHC centres, WHO subcontracted the YMCA for procurement and distribution of chronic disease medications to 435 PHC centres to serve a total of 150 000 patients suffering from hypertension, cardiovascular diseases, dyslipidemia, diabetes, asthma, mental health issues and other chronic health conditions. A total of 102 376 insulin vials were distributed to replenish stocks for around 500 diabetic patients for a period of one year. In addition, 56 non-communicable disease early detection kits were delivered to PHC centres to serve around 25 200 patients.

Tuberculosis medications covering around 200 patients were delivered to the Ministry of Public Health's national tuberculosis programme. Additionally, 10 000 ampoules of Glucantime were delivered to 12 leishmaniasis clinics run by the Ministry of Public Health, and around 1100 patients were treated in 2014. Leishmaniasis cases were mostly found among the displaced Syrian population (98%), with almost a third in children under 5 years of age.

Provision of medical equipment to public hospitals

The EU-IfS project ensured the provision of 264 medical equipment items (including 20 incubators) to 10 public hospitals (Baabda, Baalbek, Bint Jbeil, Halba, Hermel, Nabatieh, Rashaya, Saida, Tripoli and Zahleh) to reinforce emergency obstetric and neonatal intensive care.

Other PHC initiative

In order to prevent and/or contain waterborne disease outbreaks, 324 chlorine barrels were delivered to the Ministry of Public Health centrally and 258 barrels were distributed to qada (district) health units (Baalbek 40, Bekaa 40, Halba 20, Kobayat 20, Mount Lebanon and Baabda 58, Nabatieh 40, Tripoli 40). In addition, 500 000 medical files, 20 000 vaccination cards and 100 000 pregnancy cards and other primary health care materials and forms were printed, distributed and made available for use at all PHC centres.
5.3 Expansion and reinforcement of national programmes

Maternal and child health care initiative

The Mother and Child Health Care initiative allows vulnerable Lebanese pregnant women and children who do not have any form of health coverage to benefit from a comprehensive package of health care services at no cost. This initiative was initially implemented in Wadi Khaled, Akkar Governorate, in 2003 by the Makassed Philanthropic Islamic Association of Beirut, then partially supported by the Ministry of Public Health on an annual basis. With EU-IfS funds, WHO in partnership with Makassed and in coordination with the Ministry of Public Health, expanded the initiative to three new regions (Beirut, Rashaya and Tripoli) where 379 antenatal care visits, 423 deliveries and 111 paediatric follow-up visits took place and were covered by the project.

Carnet de santé

Every child born in Lebanon is entitled to a child health record known as a “carnet de santé”, provided for free by the Ministry of Public Health. With the increased demand caused by the large number of births among Syrian refugees, and in view of the need to amend the vaccination calendar as per the new Ministry of Public Health recommendations, WHO in collaboration with the Lebanese Pediatric Society and under the overall coordination of the Mother and Child Health department at the Ministry of Public Health, updated the carnet de santé introducing prevention and development components. Complementing the updated carnet de santé, an educational booklet was also developed giving tips and advice to new mothers about childhood illnesses and health-related issues at all levels of development, from birth up to 18 years of age. The educational booklet is provided for free to all women delivering for the first time across every hospital in the country.

Integration of mental health services at PHC centres

To address the need for mental health care in vulnerable communities, training on the WHO Mental Health Gap Action Programme (mhGAP) Intervention Guide was completed in 48 PHC centres, whereby a total of 106 Lebanese health care providers (doctors, nurses, social workers, etc.) were trained on assessment, management, follow-up and referral of mental health conditions. In addition, 59 staff from 37 PHC centres were trained on psychological first aid (Figure 6). The mhGAP guide was translated, adapted and summarized into mhGAP-aid.

Figure 6. Number of staff at PHC centres trained on mental health programmes, 2014–2015

Non-communicable diseases initiative

The number of PHC centres included in the national initiative for the early detection of non-communicable diseases was increased from around 60 in 2013 to 146 in 2015 (Figure 7). In addition, 56 non-communicable disease early detection kits to serve around 25 200 patients were delivered to PHC centres, and 275 PHC staff were trained on risk assessment and early detection of hypertension and diabetes. People were screened through testing of body mass index (BMI), fasting blood sugar and blood pressure, as well as for lifestyle habits such as physical inactivity, smoking and harmful use of alcohol.
WHO support to the humanitarian response in Lebanon 2014-2015

5.4 Capacity-building on clinical case management

The EU-IfS project allowed for updating of national guidelines related to critical health care issues including child and neonatal care, maternal and emergency obstetric care, general PHC and rational use of medicines, and the training of health staff accordingly (Figure 9).

Figure 7. PHC centres in the non-communicable diseases early detection initiative, up to July 2015

By the end of 2015, a total of 452 health care workers had been trained on early detection and risk assessment for non-communicable diseases. Around 14,000 patients were assessed for cardiovascular risk factors, and around 10% were referred for further evaluation and treatment (Figure 8).

Figure 8. Beneficiaries of the early detection initiative in its 3 phases, up to July 2015

Figure 9. Summary of training for health staff, 2014–2015

Training on rational use of medicines

The Ministry of Public Health has a longstanding chronic medications programme that is managed by the YMCA. It ensures procurement, management and reporting on utilization of chronic disease medications based on a regularly updated national list. It has been observed that some health centres suffer from medication mismanagement, due to the lack of trained staff and their poor medical background.

WHO and the Ministry of Public Health, in partnership with the YMCA, implemented training and awareness seminars for doctors, pharmacists and health care workers from PHC centres on the rational use of medicines, the management of medicines and the role of health workers. Around 200 PHC centres enrolled in the Ministry’s chronic medications programme were invited, and 125 doctors/pharmacists and 256 health care workers/administrators attended the training.

Training on IMCI

The Ministry of Public Health in collaboration with WHO is working towards improving the quality of health care services at PHC level. The provision of integrated standardized care for childhood illnesses is a major step in this direction; therefore, WHO IMCI guidelines have been adapted to the Lebanese context. The adaptation exercise was coordinated by Université La Sagesse in collaboration with the Lebanese Pediatric Society, WHO and the Ministry of Public Health. Training workshops on the contextualized IMCI guidebook were conducted. Core teams from 250 PHC facilities across Lebanon, including a total of 633 nurses and physicians, were trained between March and May 2015. Enhancing child health based on IMCI principles is expected to standardize child health care at the primary level, rationalize the use of medicines, and reduce morbidity and mortality among the most vulnerable children in Lebanon.
Training on emergency obstetric care

In order to strengthen the capacities of health care staff and improve delivery outcomes, WHO and the Ministry of Public Health in partnership with the Lebanese Society of Obstetrics and Gynecology, implemented a capacity-building project on emergency obstetrics care targeting the concerned health care attendants (obstetricians, gynaecologists and midwives).

Fourteen workshops were conducted across Lebanon to reach health care providers working in PHC centres located in areas with a high density of displaced Syrians. In total, 179 obstetric/gynaecology physicians and 65 midwives were trained on emergency obstetrics care to improve delivery outcomes. The training was based on the WHO handbook for monitoring emergency obstetric care, with case studies developed and adapted accordingly.

Training on neonatal resuscitation and stabilization

As part of the EU-IIFS fund, WHO and the Ministry of Public Health, in partnership with the Lebanese Association for Early Childhood Development, implemented a capacity-building project targeting health care providers working in neonatal wards to build their capacities in neonatal resuscitation and stabilization.

The neonatal resuscitation training programme aims at improving knowledge and skills of medical staff working in maternity wards on concepts that are considered key interventions for the resuscitation of newborn infants. The S.T.A.B.L.E. Program focuses on the post-resuscitation care of sick neonates including physical assessment, problem recognition and patient management. To be trained in S.T.A.B.L.E, a neonatologist needs to have previously been trained in neonatal resuscitation. Therefore, the Lebanese Association for Early Childhood Development first conducted six refresher training workshops on neonatal resuscitation in February, and sent four neonatologists to be trained in S.T.A.B.L.E in Muscat, Oman. These trained experts conducted nine S.T.A.B.L.E workshops in March and April 2015. A total of 256 health care providers working in neonatal wards were trained on neonatal resuscitation and a total of 286 were trained on stabilization standards and methods.

The high caesarean section rate that has been registered among pregnant refugees in Lebanon is reflective of delivery complications.

In addition, 130 medical doctors and nurses from PHC centres included in the Ministry of Public Health’s universal health coverage project were trained on the content of the Essential Package of Health Services.

Capacity-building for health care staff in clinical case management

WHO, in collaboration with the Lebanese Society of Family Medicine, provided technical back-up for the revision and development of guidelines and protocols for the 30 most common health conditions observed at PHC centres. Between March and May 2015, 605 medical doctors and nurses from PHC centres across Lebanon were trained on the updated national guidebook for clinical management. The guidelines and training modules were also translated into French. Training of health care staff in clinical case management will improve the quality of health care services provided to patients.
5.5 Communicable diseases monitoring, early warning and response

The reinforcement of the communicable diseases early warning and response system aimed to increase the Ministry of Public Health’s capacity to detect and deter potential outbreaks. The normative and material support provided through the EU-IfS ensures the quality of interventions for communicable diseases control in general.

Development of surveillance and response guidelines

A national guidebook on transmission, surveillance and response for 43 selected diseases and hazards was developed in consultation with the Ministry of Public Health, WHO and the Lebanese Society for Infectious Diseases. The selected diseases/hazards include: acute flaccid paralysis (AFP), anthrax, brucellosis, Creutzfeldt-Jakob disease, cholera, diphtheria, food poisoning, gonorrhea, hepatitis A, B, C, D and E, human T-cell leukemia virus type 1 (HTLV-1), hydatid cysts, haemorrhagic fever, new influenza virus subtypes, invasive coronavirus infection, invasive meningococcal disease, intestinal infections, legionellosis, leishmaniasis, leprosy, malaria, measles, mumps, pertussis, plague, rubella, rabies, schistosomiasis (bilharzia), smallpox, syphilis, tetanus and typhoid fever.

Nine newly developed surveillance guidelines and nine related response guidelines in three languages (Arabic, English and French) were distributed to hospitals, medical centres, private clinics, laboratories, schools and epidemiology surveillance units and response teams. The Ministry of Public Health official surveillance forms for reporting and investigation were also updated and disseminated to hospitals, medical centres, private clinics, laboratories, schools and epidemiology surveillance unit teams.

Surveillance and response training

WHO, in coordination with the Ministry of Public Health, conducted eight training sessions on surveillance and response standard operating procedures for priority notifiable diseases, to provide clear guidance on the steps and processes that should be followed to ensure coordination and timely response in case of an alert/outbreak. A total of 322 personnel were trained (Figure 10), including staff from the Ministry of Public Health response team and the Epidemiology Surveillance Unit team, qada doctors, health department heads at mohafaza level, airport health teams and Rafik Hariri University Hospital teams.

Figure 10. Number of participants trained on priority notifiable diseases, 2014–2015
Training on school-based surveillance

The school-based surveillance system is a tool to detect disease alerts and outbreaks and monitor school absenteeism. It is complementary to the national surveillance system and adds to the Early Warning and Response System across the country.

WHO, in coordination with the Ministry of Education and Higher Education and the Ministry of Public Health, conducted 39 training sessions on school-based surveillance for school health educators from 1147 public schools and coordinators from 477 private schools. A total of around 1600 school health staff attended the training.

Training on food safety

Food safety is an important issue in the reduction of foodborne disease outbreaks. To address the issue, WHO organized a general introductory workshop on food safety principles for more than 200 Ministry of Public Health staff. After which, WHO organized two workshops in January 2015 on standard food sampling and inspection procedures based on good practice guidelines. A total of 77 public health inspectors and Ministry of Public Health staff were trained on food safety principles and standard food sampling and inspection practices, and necessary sampling equipment was distributed.

Water monitoring laboratories

With the purpose of strengthening the national water quality monitoring and surveillance system, and as part of its outbreak prevention and preparedness plan, WHO in coordination with the Ministry of Public Health established eight water monitoring laboratories capable of performing selected microbiological tests for early detection and verification of disease outbreaks. The laboratories are housed at public hospitals in Baalbek, Dahr el Bacheh, Halba, Nabatieh, Rashaya, Saida and Tripoli, and Rafik Hariri University Hospital in Beirut. Each laboratory has the capacity to cover monthly testing for 20 municipalities/areas.

WHO assisted in the architectural design of the assigned laboratory premises, procured equipment and reagents for bacteriological testing (sufficient for an 18-month period) and organized training of staff. A total of 16 laboratory staff from the Ministry of Public Health were trained on standard operating procedures, modalities of testing and quality control to ensure regular drinking water monitoring. Around 30 municipality staff for 20 qada were also trained on water sampling techniques.

District Health Information Software version 2 (DHIS 2)

In order to strengthen the Epidemiology Surveillance Unit at the Ministry of Public Health, WHO initiated a project to build an online disease reporting system using the DHIS 2 web application. A 2-week workshop was conducted from 10 to 21 February 2015 for 28 participants from the Epidemiology Surveillance Unit in order to optimize DHIS 2 to match the Unit’s needs by customizing the validation rules, indicators and reports. The initial set up of DHIS2 was initiated in September 2014; staff from the Epidemiology Surveillance Unit were trained and the project entered a pilot phase in three centres: the Ministry of Public Health Office in Beirut, the Emergency Operation Center at Rafik Hariri University Hospital and the Ministry of Public Health office in Tripoli mohafaza.

5.6 Positive impact of EU-IfS project on the health care system

The EU-IfS project in Lebanon supported the capacity of the Ministry of Public Health to deal with the additional burden on the health system and ensure ongoing access to PHC for both vulnerable host and refugee communities. The project markedly improved the resilience capacity of the health system, with a focus on ambulatory care and outbreak prevention. Notable achievements in this regard are given below.

1. Reinforced capacity of the national communicable diseases surveillance and response system to better identify and monitor outbreaks and guide the response.
2. Standardized patient care through the updating of national clinical guidelines at PHC centres and training of staff.
3. Availability of essential equipment and medicines for both acute and chronic conditions, which has facilitated service delivery and access to appropriate and affordable medicines.
4. Integration of new services at PHC level, namely mental health services and non-communicable disease programmes.
5. Establishment of the water quality monitoring system.

As evidenced by the pre- and post-project evaluation, the EU-IfS further contributed by improving the perception of the quality of services provided by the Ministry of Public Health. This is an important achievement that will contribute to a longer term impact on tension reduction, at least that observed due to competition for health resources, between refugees/displaced population and the vulnerable Lebanese population.

The project implementation was facilitated by the capacity of WHO to partner with the private sector (academic institutions, scientific and professional societies, national nongovernmental organizations) and to coordinate closely with the Ministry of Public Health and other government institutions (such as the Ministry of Education and Higher Education and the Ministry of Interior).
6. Supporting Lebanon’s health system to cope with the Syrian crisis: funds from the People’s Republic of China

6.1 Background

In line with the emerging health needs attributed to the impact of the Syrian crisis – namely, the need for increased preparedness, strengthening capacities for prevention, capacity-building of health workers, provision of supplies and early detection and appropriate response to emerging communicable diseases – the Government of China, through WHO Lebanon, supported a project to strengthen the national response to the crisis along three main areas of intervention:

1. Non-communicable diseases: to ensure continued and appropriate supply of medications to vulnerable Syrian refugees and host community members suffering from chronic non-communicable diseases.

2. Emergency response: to ensure timely containment of disease outbreaks with a focus on capacity-building including training and supplies provision. The aim was to reduce the risk of outbreaks and ensure adequate access to health care for young people among refugees and affected host communities.

3. Emergency preparedness: to ensure readiness for hazards management and response. The aim was to support chemical weapon and other hazards preparedness and response capacity, as well as reinforcing food safety monitoring.

6.2 Non-communicable diseases

The aim of the project was to provide medications for vulnerable Syrian and host community patients with non-communicable diseases at the PHC level, based on assessed needs.

Needs assessment

A rapid appraisal of Syrian refugees’ access to non-communicable diseases care and medications, mandated by WHO Lebanon, was conducted by Université Saint-Joseph in October 2014. The assessment focused on areas with large concentrations of informal tented settlements in Bekaa Governorate. It was found that non-communicable diseases constituted a major issue in the living context of displaced populations. Stock disruptions of non-communicable disease medications in PHC centres were reported, and related to the unpredictable increase in beneficiaries. The main shortages observed were in medications for the management of asthma, epilepsy, anaemia and diabetes, especially for paediatric patients. The rapid assessment also indicated the presence of other problems related to the access and management of non-communicable disease medications, including:

- Inadequate access to insulin due to cold chain issues;
- Long waiting times and limited opening hours at PHC centres;
- The presence of several prescriptions of branded non-communicable disease medications that were not included in the Ministry of Public Health’s essential medicines list;
- The high cost of transportation to health facilities and ambulatory laboratory tests;
- Suboptimal stock management skills at PHC centres, resulting in delays in placing orders for replenishing non-communicable disease medications.

6.3 Emergency response

The aim was to support preparedness, prevention, early detection and response to epidemic-prone diseases in Lebanon associated with the influx of Syrian refugees.

The focus of support was to enhance infection control measures at the health facility level, support medical screening for young people in schools, and reinforce health awareness activities in relation to outbreak prevention.

National preparedness for outbreak response

Personal protective equipment (levels C and D) was made available at the national referral hospital as well as to patient transport teams (Lebanese Red Cross, armed forces, and Points of Entry health staff). 3000 personal protective equipment sets (including cover-all suits, N95 masks, surgical masks, impermeable boot covers, impermeable gowns, eye goggles and latex gloves) were provided to health staff at hospitals, PHC centres and district health units, as well as to transport service staff and border points of entry.

This was coupled with training activities whereby a total of 510 health staff at hospitals and district health units and 159 transport service staff were re-trained on infection control and prevention measures in the context of Ebola virus and MERS-CoV. WHO supported the Ministry of Public Health in collaboration with the Lebanese Society for Infectious Diseases, to train around 400 health staff from district health units, PHC centres and public hospitals, and 159 first responders from the Lebanese Red Cross and the armed and security forces. In addition, infection control teams in 45 selected hospitals were trained in infection control measures by the Order of Nurses in Lebanon in collaboration with WHO and Ministry of Public Health teams.

At regional level, all 26 district health units were equipped with special fridges (one fridge per district) for food safety teams to store samples for food safety inspection.

A total of 10,000 brochures on the prevention and control of MERS-CoV were distributed to all 143 hospitals and more than 600 PHC centres across the country, as well as at Beirut international airport.

Provision of medications

Based on the findings, WHO worked on filling the gaps in non-communicable disease medications management uncovered by the rapid evaluation, and a stock of medications was procured for the Ministry of Public Health accordingly. Details of the medications procured are given in Table 3.

Table 3. Description and quantities of procured non-communicable disease medications

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beclometasone 50 µg 200 dose inhaler</td>
<td>9 000</td>
</tr>
<tr>
<td>Calcium folinate 15 mg supplement tablet</td>
<td>380 000</td>
</tr>
<tr>
<td>Dextromethorphan 7.5 mg/5 ml syrup 100 ml bottle</td>
<td>96 000</td>
</tr>
<tr>
<td>Ferrous sulphate 60 mg + 0.4 mg tablet</td>
<td>360 000</td>
</tr>
<tr>
<td>Hyoscine butylbromide 10 mg tablet</td>
<td>36 000</td>
</tr>
<tr>
<td>Hyoscine butylbromide 20 mg injection</td>
<td>2 400</td>
</tr>
<tr>
<td>Ibuprofen 200 mg tablet</td>
<td>270 000</td>
</tr>
<tr>
<td>Ibuprofen 100 mg/5 ml suspension 100 ml bottle</td>
<td>48 000</td>
</tr>
<tr>
<td>Prednisolone 5 mg tablet</td>
<td>36 000</td>
</tr>
<tr>
<td>Promethazine 25 mg/ml syrup 100 ml bottle</td>
<td>24 000</td>
</tr>
<tr>
<td>Salbutamol 100 µg inhaler</td>
<td>8 640</td>
</tr>
<tr>
<td>Salbutamol 2 mg/5 ml syrup 100 ml bottle</td>
<td>202 500</td>
</tr>
</tbody>
</table>

Source: WHO
Health education for displaced Syrians and host communities

A total of 992 people in areas with a high concentration of Syrian refugees were reached through direct awareness-raising sessions on selected health issues pertinent to the context of displacement. Sessions were implemented at the community level on topics related to hygiene, hepatitis A, smoking and sexually transmitted infections.

The nongovernmental organization Al Masrah Al Alami, with support from WHO, organized a puppet show on general hygiene and hand hygiene for children aged under 7 years in selected schools in Beirut, Mount Lebanon and South governorates, reaching around 200 children.

WHO supported the Ministry of Public Health team to conduct awareness sessions on hepatitis A in Bekaa and South governorates, the two areas that had experienced disease outbreaks. These sessions reached 540 beneficiaries. More than 10,000 brochures on hepatitis A prevention and control, with a focus on hand hygiene and sanitation, were donated to the Ministry of Public Health for distribution during community awareness-raising campaigns and through PHC centres. There was special focus on areas heavily populated by Syrian refugees.

In addition, 10,000 brochures on MERs-CoV prevention for the general community were produced and disseminated at PHC centres, the airport and religious institutions for distribution to pilgrims travelling to Saudi Arabia.

The nongovernmental organization Al Fikr wal Hayat, in partnership with WHO, organized awareness sessions on tobacco smoking to Syrian refugees and host communities in Tripoli district in North Governorate, reaching around 130 people.

The Lebanese Family Planning Association, in partnership with WHO, delivered awareness sessions on reproductive health to 120 displaced Syrian women of childbearing age, mainly in Bekaa Governorate.

WHO produced 24 editions of the Lebanese Epi-Monitor, an epidemiological surveillance report for the country. One hundred copies of each report were printed and distributed to health partners and key stakeholders. The reports were also posted on WHO and Ministry of Public Health websites.

Medical screening for students from displaced Syrian families and vulnerable host communities

A total of 300,000 student medical files (which constitute the gap reported by the Ministry of Education and Higher Education for 2014-2015) and 600,000 student dental health files (which constitute the needs for 2015) were made available for 1378 public schools to record the findings of student medical screening, benefiting a total of 400,000 students in the public school sector (of whom around 30% are Syrian refugees).

A total of 648 public schools – mostly schools hosting large numbers of Syrian students, and identified as having insufficient or no medical equipment to perform medical screening – were provided with medical examination kits (stethoscope, otoscope, sphygmomanometer, height/weight measuring scale, Snellen chart, stretcher) to perform annual medical and oral health screening of students.
6.4 Improving emergency preparedness

In line with the requirements of the International Health Regulations (2005) and to support Lebanon in facing various hazards that are potentiated by the Syrian crisis, WHO support for emergency preparedness focused on capacity-building for biological, chemical and radiological hazards as well as on food safety monitoring.

National HazMat team

In view of the current instability in neighbouring countries, Lebanon’s risk of exposure to hazards has increased. In this respect, WHO Lebanon proposed to train health staff on the medical management of potential cases exposed to hazardous materials, in addition to public health measures required to manage such risks. Moreover, such capacity-building is required as part of the International Health Regulations (2005).

In September 2015, a decision was taken by the Ministry of Public Health with the support of WHO to create a national HazMat medical team to effectively play its role and responsibilities as a member of the Lebanese Chemical Biological Radiological Nuclear (CBRN) national Team (launched by Prime Minister Mr Tammam Salam) with the EU CBRN Centres of Excellence, under the name “Project 34”.

The overall goal of Project 34 was to improve the preparedness and response capability of the Ministry of Public Health to deal with any potential threats generated from hazard incidents including CBRN materials.

Thirteen training sessions were conducted between 16 November and 22 December 2015 for 242 participants from the Lebanese Civil Defense, the medical teams (physicians and nurses) from various public hospitals and Lebanese Red Cross. The objectives of the training were: to create a HazMat team at the national level to face any CBRN event in Lebanon; to create a 24-hour HazMat team from different backgrounds and sectors in Lebanon; to define roles and responsibilities for each team during any HazMat incident; to enhance coordination between the different teams in any CBRN event; practical training and exercising on personal protective equipment and HazMat equipment (decontamination shower, isolation shelter, etc.); and, conducting and evaluating a CBRN event. High-level equipment was brought by WHO and used during the training for the practice and simulation sessions.

Capacity-building for monitoring food safety

In line with the food safety initiative led by the Ministry of Public Health, WHO supported the recruitment of 11 food safety officers and three food quality control officers (nutritionist and/or related fields) for the Ministry of Public Health. The food safety officers are responsible for the following tasks:

- Assisting the Ministry of Public Health in conducting inspection visits for all types of food establishments;
- Filling in the results and special recommendations from each inspection visit on the predefined inspection checklist, specific to the type of establishment (to be done during each inspection visit);
- Submitting all the completed food inspection documents on weekly basis;
- Collecting food samples during routine inspection visits, and documenting details of the samples on a separate food sampling form;
- Safely transferring the food samples to predefined laboratories for microbiological analysis using the food safety sampling kit;
- Contacting each food establishment owner to inform on the inspection and food sampling results;
- Attending the theoretical and practical food safety training;
- Assisting the Ministry of Public Health in setting a plan for routine inspections of food establishments covering the 25 qada;
- Categorizing food establishments.

At the beginning of the food safety campaign launched by the Ministry of Public Health it was noted that the health inspectors visiting food establishments and collecting food samples lacked some knowledge regarding food safety, proper handling practices and safe sampling techniques. Therefore, three 1-day training sessions were conducted between 9 and 12 November 2015 for a total of 79 health inspectors at the Ministry of Public Health. The objectives of the training were to provide health inspectors with information related to hazard analysis and critical control points, and to train them on the new food safety monitoring sheets to be distributed to food establishments.

6.5 Project impact

The project presented a timely opportunity to support the national health system in improving its resilience and capacity to provide access to care for the most vulnerable Syrian refugees and host communities, as well as to increase national capacity in emergency preparedness and response to outbreaks and hazards. It further allowed the reinforcement of the school health programme and subsequently reached out to the most vulnerable youth groups.

The project was also instrumental in paving the way to better sustained support of training and capacity-building for health staff on outbreak prevention and containment, as well as support for youth health and access of the most vulnerable refugee and host populations to PHC and medications.

Based on the achievements of the project, WHO updated the national guidebook on school health screening and organized training for school physicians. This will harmonize screening methods and allow for the proper recording of medical data and referral of patients who require follow-up treatment.

The provision of fridges for food safety monitoring and surveillance was instrumental in establishing a proper surveillance, sample collection and management system. In addition, WHO supported the Ministry of Public Health in developing a 2-year national food safety plan including training on inspection techniques, standard operating procedures for reporting food poisoning events and outbreaks, updated food inspection forms and a revised database of food establishments.

The establishment of a national HazMat team was an important step towards improving hazards response, and the Government of Lebanon will continue to conduct integrated simulation exercises within its national emergency preparedness plan.

Filling the gap in non-communicable disease medications was of utmost importance to allow the most vulnerable populations access to care and to alleviate the heavy burden already straining the Ministry of Public Health in ensuring continuous availability of medications.
7. Preventing resurgence of poliomyelitis and strengthening the immunization programme: the polio support project

7.1 Background

The last indigenous poliomyelitis case in Lebanon was reported on 8 June 1994, and Lebanon was certified as a polio-free country by the Regional Commission for the Certification of Poliomyelitis Eradication in 2002. In October 2013, however, cases of polio were detected in Syria. This outbreak led to the declaration of a national health emergency in the Syrian Arab Republic and the initiation of a regional emergency response plan.

In this context, and to keep Lebanon polio-free, it was imperative to ensure that high vaccination coverage for polio was maintained among both refugee populations and host communities, and that high vigilance with AFP surveillance was maintained. Therefore, the polio support programme was initiated in 2013. The key achievements resulting from the polio support project are summarized in Table 4.

Box 1. The immunization programme in Lebanon

Routine Expanded Programme on Immunization (EPI) services are provided through a network of approximately 217 PHC centres and 650 dispensaries, mostly owned by private nongovernmental organizations; around 10% are owned and managed by the Ministry of Public Health and Ministry of Social Affairs or municipalities. In addition, more than 1200 paediatricians and a similar number of general practitioners and family doctors vaccinate in their private clinics. Approximately half of the paediatricians practice in both private clinics and PHC centres.

In parallel with routine immunization services, many national and subnational immunization days and mass campaigns are organized to move towards the programme’s objective of eradicating polio and eliminating measles. Campaigns have increased in number since the onset of the Syrian crisis.

Due to the Government of Lebanon’s no-camp policy, Syrian refugees are spread over 1800 localities, with many residing in informal settlements and collective shelters. In response to the crisis, and in accordance with the WHO/UNICEF Strategic Plan for polio outbreak response in the Middle East developed in 2013, the Ministry of Public Health has carried out several national immunization days and subnational polio campaigns to protect all children under 5 years of age with additional doses of vaccine.

Furthermore, the Ministry has reinforced its routine vaccination through the “reach every child” approach, and mandatory polio vaccination has been provided to children under 5 years of age arriving at the four official land border crossings. Ongoing immunization activities have also taken place at the five UNHCR registration centres, providing polio plus measles vaccination in addition to vitamin A supplementation.

In this context, and to keep Lebanon polio-free, it was imperative to ensure that high vaccination coverage for polio was maintained among both refugee populations and host communities, and that high vigilance with AFP surveillance was maintained. Therefore, the polio support programme was initiated in 2013. The key achievements resulting from the polio support project are summarized in Table 4.

The project’s total budget: 3.3 million US$
7.2 Immunization campaigns

During 2013–2015, WHO and partners supported the Ministry of Public Health to conduct polio campaigns in Lebanon to mitigate the risk of polio transmission due to the 2013 outbreak in Syria.

- In 2013, a two-phase polio campaign vaccinated 25,470 children in phase I and 27,185 children in phase II.
- In 2014, two polio campaigns vaccinated 516,967 children (91% coverage) in October and 556,814 children (96% coverage) in November.
- In 2015, two polio campaigns achieved 71.4% coverage among targeted host communities and 96% coverage of Syrian children in informal settlements in March, and 78% coverage among targeted host communities and 92% coverage of Syrian children in informal settlements in April.

In April 2014, 1,054,830 children aged from 9 months to 18 years were vaccinated with measles-rubella (MR) during the national immunization campaign (1,462,728 children were targeted; immunization coverage was 79.7%). In addition, WHO and partners supported the Ministry of Public Health to conduct three mop-up campaigns in 2014, targeting children aged 0–5 years with bivalent oral polio vaccine (bOPV) and children aged 1–18 years with MR vaccine (Figure 11).

![Figure 11. Mop-up vaccination campaigns targeting children aged 0–5 years with bOPV and children aged 1–18 years with MR, 2014](Photo credit: WHO/R. Ziade)
Two subnational mop-up vaccination campaigns in 2015 targeted children aged 0-5 years with bOPV and children aged 1–18 years with MR vaccine (Figure 12).

The polio campaigns – including microplanning, monitoring, field organization and evaluation – were organized by WHO. Effective microplanning was crucial for the success of the campaigns and included: geographic microplanning (schools and vaccination sites); zones and their coordinators; human resources needed; and vaccine and logistics management (forms, needs, wastage, transportation, etc.). Joint visits by WHO, the Ministry of Public Health and UNICEF to every health district officer were planned 2 months prior to each campaign to assess needs and explain the basics of the microplan.

An intra-campaign monitoring questionnaire was developed by WHO, with indicators to assess the work of qada physicians and vaccination teams during the campaign. The intra-campaign monitoring tool was reviewed and cleared by the Polio Control Task Force and had served as the basis of rapid assessment during previous mop-up campaigns. UNICEF, Ministry of Public Health and WHO staff visited all Lebanese districts during the mop-up campaigns to fill out the intra-campaign monitoring questionnaire and report back to the Ministry for rapid action whenever needed.

The campaigns were coupled with intensive community mobilization in collaboration with UNICEF, UNHCR and other partners, under the overall coordination of the Ministry of Public Health. WHO, UNICEF and the Ministry of Public Health carried out nationwide social mobilization campaigns targeting families, communities and medical practitioners with television/radio spots and mobile phone SMS in order to raise awareness and ultimately reach every child. WHO also conducted several sensitization and consensus-building meetings with private scientific societies, which led to improvement in the adherence of medical doctors to the campaign and an increase in the participation of children.

7.4 Routine immunization

Immunization coverage in Lebanon has been above 80% for all vaccines since 2011, excepting second dose of measles-containing vaccine (MCV2) which has reached 69% coverage (Figure 13).

7.3 AFP active surveillance

WHO was able to recruit eight nurses and train them through active surveillance. As a result, AFP surveillance indicators markedly improved to match international standards (Table 5).
WHO supported an EPI cluster survey that showed full coverage of required vaccinations for polio and diphtheria-tetanus-pertussis (DTP) (at least three doses) and measles-mumps-rubella (MMR) was estimated at about 60% among those with immunization documents to hand and at 36% in the absence of immunization documents (considered as non-fully vaccinated).

- DTP3 coverage among Lebanese children was 92.9%, as opposed to 67.2% among refugees.
- Measles coverage among Lebanese children was 64.4%, compared to 40.7% among refugees.
- Hermel district had the lowest proportion of fully vaccinated children (27.7%), followed by Jezzine (28.0%). The highest proportion of fully vaccinated children was found in Rashaya district (91.4%).

Immunization service delivery

As part of WHO efforts to support the Ministry of Public Health in reinforcing routine immunization and vaccine coldchain management, a WHO/Ministry of Public Health/UNICEF immunization support team was established. The support team aimed to determine an estimate of the real target group of children to be vaccinated and to reinforce the quality of vaccine management in health care facilities providing vaccination services (primarily PHC centres and dispensaries).

Accordingly, the team visited physicians in 25 out of 26 districts. The only district not visited was Hermel due to security reasons. During these visits, the approximate number of children vaccinated from 2012 onwards was determined, trends of reporting were investigated, ways to improve the reporting system of health care centres (be it private or public) providing vaccination services were proposed, and the districts’ needs – including need for capacity-building – were assessed.

EPI strategy

WHO organized an EPI mission to establish a 5-year EPI strategy. The mission objective was to conduct an EPI situation assessment to develop a clear understanding of Lebanon’s needs for EPI planning. A first draft of the situation analysis and strategic directions has been proposed to the Ministry of Public Health EPI team.

7.5 Project impact

The efforts of WHO, the Ministry of Public Health and partners helped Lebanon remain polio-free despite the threat from the polio outbreak in neighbouring Syria. Those efforts were also channelled into strengthening the national routine immunization system in Lebanon to prevent vaccine-preventable disease outbreaks in view of the challenging public health risks following the Syrian crisis.
8. Supporting Lebanon’s school health system to cope with the Syrian crisis: funds from the State of Kuwait

8.1 Background

The rapid increase in the Syrian refugee population in 2014 has put a significant strain on health services in Lebanon, and refugees have found themselves at increasing risk of deteriorating health status and distress. Poor shelter, lack of appropriate waste disposal and poor hygiene are major contributing factors to health problems among the refugees.

Young people’s health is of particular concern, as 42% of Syrian refugees registered with UNHCR are aged 3–18 years. Lebanese children of school age are estimated at around 1 million, of whom approximately 300 000 are attending public schools. In addition, at least 100 000 Syrian children were attending public schools in 2014. In this context, funds were made available in 2015 from the State of Kuwait to support strengthening of the school health system in Lebanon. The key achievements resulting from the school health project are summarized in Table 6.

The rapid increase in the Syrian refugee population in 2014 has put a significant strain on health services in Lebanon, and refugees have found themselves at increasing risk of deteriorating health status and distress. Poor shelter, lack of appropriate waste disposal and poor hygiene are major contributing factors to health problems among the refugees.

8.2 School health programme

Since 2007, the national school health programme has been supported through a tripartite agreement between WHO, the Ministry of Public Health and the Ministry of Education and Higher Education.

Box 2. The school health programme

The Lebanese school health programme is based on the national school health strategy (2010) and has three main components.

1. Medical and oral health screening in public schools based on a standardized medical file and guidelines.
2. Health education and promotion including the introduction of eLearning for health.
3. The school health environment.

8.3 Medical screening at public schools

As part of the national school health programme, the Ministry of Education and Higher Education and Ministry of Public Health have set the medical screening process as a health priority and a right of all students in public schools in order to maintain good school health. The medical screening process has become a more pressing issue due to the overcrowding in public schools caused by the influx of Syrian refugees.

The 2010 guidebook on school-based health screening was revised and a new edition was developed in October 2015 under the technical support and supervision of WHO and in collaboration with the Lebanese Order of Physicians (LOP), Ministry of Education and Higher Education, Makassed Philanthropic Islamic Association of Beirut and CHAMPS Fund at the American University of Beirut Medical Center. The revised edition includes an update on the medical screening process, components of the medical exam and a pre-participation examination of student athletes.

The LOP took on the role of organizing the medical screening as part of its voluntary contribution to the national school health programme. In this respect, training sessions are organized by the LOP on a yearly basis to orient doctors on the components of medical screening and discuss any potential challenges. During October and November 2015, LOP-Beirut and LOP-Tripoli with the support of WHO conducted two workshops to train around 250 doctors involved in the medical screening process on the revised guidebook.

8.4 Expansion of e-Learning

The WHO Health Academy aims to improve knowledge on disease prevention and health promotion by reaching out through eLearning, particularly to school-aged children. Lebanon already has experience with two modules (HIV and physical activity) from the Health Academy’s package of eLearning courses, which have been used during the past 6 years. The eLearning method has proved popular among students in the country. Based on needs identified through school surveys, the mental health and road traffic injuries modules have been adapted for introduction to selected public schools in a first pilot phase in 2016.

8.5 Provision of medications

To address the shortage in non-communicable disease medications reported in some areas with a high concentration of refugees, WHO, through the YMCA-operated chronic medications programme at the Ministry of Public Health, procured sufficient quantities of essential non-communicable disease medications to fill the gap for the last quarter of 2015.

8.6 Mother and child health care

Based on the high need for maternal health care in Tripoli, WHO subcontracted the Makassed Philanthropic Islamic Association of Beirut to provide antenatal and postnatal services to a total of 139 women, who were referred for delivery at the expense of the Ministry of Public Health.

Table 6. Key achievements of the project

<table>
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<tr>
<th>Area</th>
<th>Achievement</th>
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<tbody>
<tr>
<td>Youth health /school health</td>
<td>Medical screening guidebook upgraded and 3000 copies printed and distributed</td>
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<tr>
<td></td>
<td>250 medical doctors trained on updated medical screening standards</td>
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<tr>
<td></td>
<td>Two e-Learning health modules adapted</td>
</tr>
<tr>
<td>Maintenance of Mother and Child Health Care initiative in Tripoli</td>
<td>A total of 139 women received obstetrics and antenatal and postnatal care</td>
</tr>
<tr>
<td>Provision of medications</td>
<td>The gap in chronic medications filled</td>
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</table>

The project’s total budget: 500 000 US$
Six years of conflict in Syria have resulted in a massive influx of refugees into Lebanon, placing an enormous pressure on the country. Hosting a large, increasingly poor, refugee population has continued to test the limits of infrastructures and public services that were already fragile before the crisis. The sudden large increase in population is putting public institutions under extreme pressure to deliver basic services to an increasingly high number of vulnerable people, in the context of shrinking national resources and decreasing funding.

With the shift from a state of emergency into a state of protracted crisis in Syria, the humanitarian response in Lebanon needs to take a strategic turn to build the health system’s resilience. and the international community’s support, while recognizing the interdependence of health and development in line with the Sustainable Development Goals.

Building on lessons learned and interventions undertaken in 2015, and in line with the humanitarian support to Lebanon within the Humanitarian Country Team and Ministry of Public Health strategy, WHO is pursuing the following strategic areas for 2016

- Strengthening health care institutions and enabling them to face the increased demand on services and a scarcity of resources.
- Ensuring wider access to a PHC package of basic services through the support of PHC centres. This includes access to medications, non-communicable diseases management, mother and child health care and mental health services, and implies the integration of more PHC centres into the Ministry of Public Health network to enable a better geographical coverage of health services and an enhanced capacity to accommodate the important caseload in targeted areas.
- Expanding the existing Early Warning and Response System and facilitating the creation of an Event Management System.
- Continued support to selected priority programmes: Expanded Programme on Immunization, tuberculosis programme and HIV/AIDS programme.
- Youth health: monitoring and addressing youth health risk behaviour and related diseases.
- Continued capacity-building of human resources at all levels of the health care system.

9. The way forward

Accelerating development in parallel to humanitarian support is the focus of WHO and the international community’s support, while recognizing the interdependence of health and development in line with the Sustainable Development Goals.
Acknowledgements

Sincere appreciation is extended to the partner community in Lebanon for its commitment and professionalism. Without the determination of our counterparts at nongovernmental organizations and UN agencies, many health interventions would not have been able to reach the most remote areas. Without the steadfast support of donors, WHO would have been unable to implement its humanitarian interventions in Lebanon. Sincere gratitude is extended to the Ministry of Public Health, as well as appreciation for the commitment and capacity of the national teams.