BRIDGING HUMANITARIAN SUPPORT WITH SUSTAINABLE DEVELOPMENT

Biennium Report 2016 - 2017

WHO Country Office Lebanon
Bridging Humanitarian Support with Sustainable Development

Biennium report 2016-2017

WHO Country Office
Lebanon
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<th>Description</th>
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<tr>
<td>AFP</td>
<td>Acute Flaccid Paralysis</td>
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<tr>
<td>AMR</td>
<td>Antimicrobial Resistance</td>
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<tr>
<td>CBRN</td>
<td>Chemical, Biological, and Radio Nuclear</td>
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<tr>
<td>EPI</td>
<td>Expanded Program on Immunization</td>
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<td>EWARS</td>
<td>Early Warning Alert and Response System</td>
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<tr>
<td>HAZMAT</td>
<td>Hazards Management Teams</td>
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<tr>
<td>HIV/AIDS</td>
<td>Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome</td>
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<td>HTA</td>
<td>Health Technology Assessment</td>
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<tr>
<td>ILI</td>
<td>Influenza-like Illnesses</td>
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<td>IPC</td>
<td>Infection Prevention and Control</td>
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<td>IHR</td>
<td>International Health Regulations</td>
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<td>LCRP</td>
<td>Lebanon Crisis Response Plan</td>
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<td>MOPH</td>
<td>Ministry of Public Health</td>
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<td>NAP</td>
<td>National AIDS Program</td>
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<td>NCDs</td>
<td>Non-Communicable Diseases</td>
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<td>NGOs</td>
<td>Non-Governmental Organizations</td>
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<td>NIC</td>
<td>National Influenza Centre</td>
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<td>NMHP</td>
<td>National Mental Health Programme</td>
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<td>PHC</td>
<td>Primary Health Care</td>
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<td>SARI</td>
<td>Severe Acute Respiratory Infection</td>
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<tr>
<td>SOP</td>
<td>Standard Operating Procedure</td>
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<td>STI</td>
<td>Sexually Transmitted Infection</td>
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<tr>
<td>UHC</td>
<td>Universal Health Coverage</td>
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<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
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<tr>
<td>VASyR</td>
<td>Vulnerability Assessment of Syrian Refugees</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>YMCA</td>
<td>Young Men’s Christians Association</td>
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During the two-year period of 2016–2017, the Lebanon WHO country office navigated a highly volatile political and security situation, a difficult socio-economic context, and a severely strained health sector. By the end of 2017, one in four people living in Lebanon were displaced persons from Syria. This created a huge demand on subsidized healthcare at a time when the country was already experiencing major economic challenges. Despite these circumstances, the Lebanese healthcare system showed considerable resilience. The continuous focus on targeted reforms in the health sector demonstrated that progress in achieving strategic goals is possible against all odds. Over the past several years, the Ministry of Public Health (MOPH) has put considerable efforts into increasing the efficiency of hospital care, increasing access to the primary healthcare, and reducing out-of-pocket payments. In fact, over the biennium 2016–2017, access to services continued to expand in terms of both coverage and distribution of health facilities, as well as in types of services.

Together with the Government of Lebanon and humanitarian partners in the health sector, WHO spent 2016 and 2017 securing substantial support for healthcare and filling healthcare and medications needs for both Syrian refugees and vulnerable Lebanese citizens. At the same time, WHO was successful in leveraging humanitarian funding to build and consolidate the resilience of the Lebanese healthcare system: investments were made by the government and humanitarian partners through WHO in improving health security and strengthening epidemic preparedness and response, addressing important knowledge gaps for the purposes of policy making, and building the case-management capacities of primary healthcare and hospital teams.

In the coming years WHO will continue to work with its national counterparts and international partners towards more equity in access to healthcare and disease prevention and a more resilient Lebanese healthcare system.

I wish to thank the MOPH team, Ministers, Director General, and all technical staff for the excellent collaboration with our country office. I also wish to thank the UN family, as well as all partners in the health sector, as we strive to achieve better health for all those living in Lebanon. I would like to acknowledge the unconditional support of our Regional and Headquarter teams, but more specifically all staff members of the WHO Country Office in Lebanon for their dedication to working tirelessly to meet targets and deadlines and ensuring coordination and continued success. It is my sincere hope that productive collaboration with all stakeholders in this field will continue into the future.

Gabriele Riedner
WHO Representative, Lebanon
The health system in Lebanon has been subjected to intense pressure over the past seven years. The large demand on health services, coupled with decreasing resources, motivated the MOPH to find innovative interventions and to optimize efficiency by redirecting resources to ensure that population health is maintained. Building on existing mechanisms of service delivery and on established partnerships with civil society and the private sector, the health system demonstrated significant resilience. Despite the burden of the Syrian crisis on the Lebanese health system, the MOPH was able to accelerate development, benefiting from the momentum created by donors to support the health system and sustain it throughout the current difficult moment.

The role of WHO as a main partner has been instrumental in supporting the MOPH in this endeavour. Over these past two years, as always, WHO provided continuous technical support, sincere advocacy, and demonstrated an outstanding capacity to fundraise for critical gaps in health delivery. A coherent and highly competent country team under sound and reliable leadership made the support smooth, of high quality, and very effective. I would like to thank the country office team at WHO in Lebanon for a fruitful two years, and I am looking forward to our continued collaboration and partnership.

Walid Ammar
Director General, Ministry of Public Health, Lebanon
COUNTRY OVERVIEW

Political context

The Eastern Mediterranean country of Lebanon is a founding member of the United Nations and the League of Arab States, and a member of the Non-Aligned Movement. Constitutionally, Lebanon is a secular Arab state, parliamentary democracy, and free economy. While recognizing the rights of religious communities, the Lebanese constitution ultimately calls for an end to political sectarianism.

In 2016–2017, the Syrian crisis put a considerable strain on the country’s socio-political and economic stability, aggravated by the generally volatile political and security situation in the region, as Lebanon continued to host the highest number of refugees per capita in the world. Moreover, Lebanon experienced a 29-month-long presidential void that finally ended with the election of General Michel Aoun on October 31, 2016. A protracted waste-disposal crisis caused significant political and social turmoil and serious environmental damage, while heavy fighting in the outskirts of Arsal (a town in the Bekaa valley bordering Syria) between the Lebanese Army and Islamist insurgents added to already-existing security tensions across the country.

Changing demography

In 2018, the population of Lebanon is estimated at 6.09 million, up from the 4.1 million estimated in 2010, with the increase largely attributed to the influx of Syrian refugees since 2011. A total of 980,000 registered Syrian refugees were living in Lebanon at the end of 2017, together with approximately 500,000 non-registered refugees, and some 500,000 long-term Palestinian refugees in addition to around 100,000 workers from South-East Asia. Table 1 summarizes the main population characteristics for Lebanon.

<table>
<thead>
<tr>
<th>Indicator (year)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth (2012)</td>
<td>82 (female)</td>
</tr>
<tr>
<td></td>
<td>80 (male)</td>
</tr>
<tr>
<td></td>
<td>81 (total both sexes)</td>
</tr>
<tr>
<td>Population growth rate (2013)</td>
<td>1.0%</td>
</tr>
<tr>
<td>Maternal mortality rate per 100 000 live births (2017)</td>
<td>17</td>
</tr>
<tr>
<td>Neonatal mortality rate per 1000 live births (2017)</td>
<td>5.3</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>

Source: Core indicators for monitoring and evaluation of health situation and health system performance, Ministry of Public Health.
Rising poverty

The World Bank estimates that Lebanon has accumulated losses of $13.1 billion since 2012. Poverty rates are rising: in 2017 around 1.5 million Lebanese were considered vulnerable, 32% lived under the poverty line ($3.84/day), of whom 270,000 were below the extreme poverty line ($2.87/day). At the same time, 76% of displaced Syrians in Lebanon were living below the poverty line and classified as extremely vulnerable.

It is estimated that 67% of the vulnerable Lebanese and 87% of the Syrian refugees are concentrated territorially. A mapping exercise done by the UN showed that Syrian refugees live in the country’s most vulnerable areas (Figure 1). Competition over services and jobs are creating social tension between the refugees and the host communities.

FIGURE 1 | THE 251 MOST VULNERABLE CADASTRES IN LEBANON

Public health challenges

A detailed description of the demographic and epidemiological context can be found in the MOPH 2016–2020 Strategic Plan, which also provides an extensive account of the Lebanese healthcare system and the challenges it faces.

The health profile of Lebanon remains dominated by Non-Communicable Diseases (NCDs) in an ageing society; meanwhile, the influx of refugees adds considerable complexity.

High burden of non-communicable diseases

NCDs, including cancer, are the top causes of mortality and morbidity among adults in Lebanon. Determinants and risk factors of NCDs are highly prevalent: two thirds of the population are overweight or obese, half exhibit low physical activity, and one third smokes. Road traffic injuries are on the rise, particularly among youth. Water, soil, and air pollution are increasing due to failure of national waste and energy management, aggravated by the inadequate water and sanitation infrastructure especially in the informal refugee settlements.

Although national strategies for NCD and cancer have been developed, efforts to implement key interventions have been fragmented and face challenges to their sustainability.

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Risk of communicable disease outbreaks

The disruption of immunization in war-affected areas in Syria, coupled with poor living conditions among refugees, has heightened risks of disease outbreaks in Lebanon, including measles, mumps and polio, and the introduction of new diseases such as cutaneous leishmaniosis. The risk for an outbreak of vaccine-preventable diseases remains high despite aggressive immunization campaigns and relentless efforts to accelerate routine vaccination.

Poor hygiene and sanitation conditions have led to outbreaks of waterborne diseases such as hepatitis A and other diarrheal diseases. There is evidence that access to safe drinking water is poor\(^4\). The malnutrition rate remained stable at 2% of the displaced population less than 5 years of age\(^5\); however, approximately 36% of households were found to be moderate-to-severe food insecure\(^6\).

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\(^5\) MOPH. 2017. Primary Healthcare Department indicators.
Access to healthcare for the most vulnerable

Refugees from the Syrian war now constitute 25% of the de facto resident population. The associated increase in demand for health has been putting significant strain both on the health services and the financial and managerial capacity of the MOPH.

According to the 2017 Vulnerability Assessment of Syrian Refugees (VASyR), 46% of Syrian refugee households count at least one member who needed primary healthcare in 2017 and 24% count a member needing secondary care. Compared to previous surveys, access to healthcare has improved: 89% of refugees report that they were able to access the needed primary care and 80% the needed hospital care. For those with unmet needs, the main obstacle to access was financial.

As per the Lebanon Crisis Response Plan, a joint plan between the Government of Lebanon and humanitarian partners, the cost of service delivery to refugees is largely covered by the international humanitarian community. Primary care is subsidized for persons registered with UNHCR, covering medical consultations, laboratory tests, immunizations, antenatal care and other reproductive health services, and management of chronic diseases. UNHCR covers up to 75% of the total hospital care cost of life-saving emergencies, delivery, and neonatal care. A number of NGOs reimburse the remaining 25% of the bill, for a limited number of patients. But financial access remains problematic for many refugees, reflecting on patient outcomes. Neonatal and maternal mortality, for example, is significantly higher among refugees than among the Lebanese population.

Although access to primary and secondary healthcare has improved over the past decade, geographic disparity remains a major challenge. Distribution of health facilities, human resources for health and high technology health services still favours large cities. As more Lebanese are driven into poverty, financial barriers for the most vulnerable populations are also on the rise.

Issues of adequate and timely access to healthcare, especially for the most vulnerable populations of refugees and host communities, remain an important concern.

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2 Lebanon Crisis Response Plan (LCRP) 2017-2020 accessible via the following link: http://www.un.org.lb/lcrp2017-2020
Lebanon Crisis Response Plan

Partners across the health sector are seeking to ensure that all vulnerable populations have access to quality primary, hospital, and referral healthcare services. To that end, the Government of Lebanon and its international and national partners endorsed in 2016 the Lebanon Crisis Response Plan (LCRP). The LCRP puts forward four strategic objectives:

1. Ensure the protection of displaced Syrians, vulnerable Lebanese, and Palestine refugees;
2. Provide immediate assistance to vulnerable populations;
3. Strengthen the capacity of national and local service delivery systems to expand access to and quality of basic public services; and
4. Reinforce Lebanon’s economic, social, and environmental stability.
WHO’S COOPERATION IN 2016-17

Bridging humanitarian and development support

The massive increase in demand on health services due to the influx of large numbers of displaced people from Syria has shed light on the strengths of the Lebanese health infrastructure and system and also on pre-existing weaknesses, in particular in terms of access to quality affordable health services for the poorer segments of the Lebanese society.

Since the first humanitarian health response plans to the refugee crisis have been developed, WHO has been promoting convergence between the humanitarian and development health agendas. For example, strengthening the capacity of Primary Healthcare Centres (PHC) services to cope with an increased case load has been a priority of the health response, which has benefited both refugee and Lebanese communities and which will have a positive long-term impact on access to quality services.

I am convinced that the significant partnership and alliance of UNICEF, WHO and the Ministry of Health where all three actors played critical roles, complementing each other has helped and will continue to help avoid a major public health crisis in Lebanon.

Tania Chapuisat
UNICEF Representative, Lebanon
Facilitating access to health services for refugees and vulnerable Lebanese

WHO support to the MOPH-YMCA chronic medications program

Since 1996, the MOPH has been working closely with the Young Men’s Christians Association (YMCA) to provide adequate and sufficient treatment to patients suffering from chronic diseases, through a chronic medication program implemented by a network of 420 participating health facilities.

Prior to the onset of the Syrian crisis, the program had a relatively stable number of beneficiaries (approximately 78,000 Lebanese per year). The influx of refugees and the deteriorating economic situation in Lebanon have increased demand for the program exponentially, with more than 175,000 beneficiaries registered in December 2017. Until 2014, the MOPH was able to fund the program fully; since that year, gaps have been filled by the humanitarian community, in the context of the Syria crisis response plan.

Photo credit: R. Ziade
At present, the MOPH has secured funds to support around 90,000 patients with chronic diseases relying on its network of PHC centres and dispensaries. WHO secured medicines for the treatment of the remaining 85,000 patients through contributions from the European Union, the Government of Japan, the People’s Republic of China, and the United States. Following the National Health Response Strategy’s preference for existing systems of health services delivery, WHO worked with the YMCA to purchase and distribute the medications across all the PHC centres in the network in 2016–2017. In addition, WHO filled the gap for chronic medications not included in the NCD Essential Drug list, such as desferal for thalassemia and insulin for diabetes.

**FIGURE 2 | TOTAL NUMBER OF BENEFICIARIES OF CHRONIC DISEASE MEDICATION FROM 2015 UNTIL 2017**

![Graph showing the total number of beneficiaries from 2015 to 2017](source: YMCA 2017)

**Building capacity in medication management**

In order to improve the medications chain supply system and proper stock management at PHC centres, WHO supported the implementation of training sessions about medication management. In close coordination with WHO, YMCA conducted these training workshops in different areas of Lebanon, reaching around 300 health staff (medical doctors, nurses, and pharmacists).
In collaboration with the Public Health Institute at Université Saint Joseph in Beirut, WHO carried out an assessment of the quality of care at PHC centres, with the intent of reinforcing the PHC system based on the People Centred Care approach. Interviews with providers, administrators, and beneficiaries of PHC centres that had received training on case management in 2015 showed a relatively high satisfaction with the quality of care and an improvement of care by the beneficiaries over the past three years. In parallel, the study assessed the usefulness and utilization of the training and training guides developed, mainly for PHC clinical guidelines, Integrated Management of Childhood Illnesses (IMCI), Early Warning, Alert, and Response System (EWARS), and mental health.

Improving quality of care in PHC facilities

A main recommendation was to simplify the guidebooks into algorithms and aide-memoires that could be more easily referred to. This recommendation will be addressed in the next biennium. Additionally, chart audits and direct observation, conducted by the American University of Beirut, Family medicine department, of a selected sample of PHC centres that had received training on case management revealed a large variety in quality of care among the PHC centres assessed. The main issues included consistency and compliance with recommended clinical management protocols, retention of trained human resources, and an enabling administrative and logistics environment.
Control of non-communicable diseases

NCD prevalence and risk factor survey

Humanitarian funding enabled WHO to administer a national NCD prevalence survey in 2016, identifying the most important risk factors among the Lebanese population and Syrian refugees and mobilizing support for treatment. The study applied the WHO STEPwise approach and methodology and targeted 4,036 Lebanese and Syrian adults aged 18 to 69 years across the country.

The findings of the STEPwise survey indicate that while hypertension and diabetes are less frequent than the regional average, some risk factors are more prevalent in Lebanon. These include excessive weight/obesity, smoking, and low physical activity (Figure 3).

The survey findings confirm that special efforts are needed to ensure continued access to NCD medications and good quality of care, including early detection and awareness raising.

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Expanding the NCD early detection initiative

WHO continued its support for the expansion of the NCD early detection and referral initiative. By the end of 2017, 204 PHC centres enrolled in the National MOPH PHC network were adhering to this initiative. WHO supported a series of training workshops for newly enrolled centres, as well as coaching and monitoring the implementation process, in addition to procurement of NCD kits (hypertension and diabetes screening equipment).

Tobacco control

Photo credit: I. Haddad

In Lebanon, the prevalence of tobacco use is the second highest in the region, with an overall smoking prevalence amongst adults of 37%. It is estimated that by 2025, the prevalence will increase to 57% of the adult male and 39% of the adult female population, unless preventative measures are implemented.

During the years 2016–2017, WHO focused on providing technical support to the national Tobacco Control Program, as it worked to implement the Framework Convention on Tobacco Control (FCTC)/MPower recommendations. A draft Decree to implement pictorial health warnings in Lebanon was submitted for approval by the Parliament. A total of 6 regional workshops for creating anti-tobacco lobby groups in the governorates were conducted. WHO supported 6 awareness projects of specialized school-based, community-based, and social media-based NGOs.

Mental health services have been mostly private and centralized, not widely accessible and affordable. The need for mental health services has increased dramatically following the Syrian crisis. In addition, people do not seek timely treatment due to fear of stigma and discrimination.

WHO supported the MOPH’s National Mental Health Programme (NMHP) to integrate mental health services into general healthcare services (primary healthcare and hospital care). Making use of the WHO Mental Health Gap Action Programme (mhGAP) tools, WHO and the NMHP developed guidelines for mental healthcare and educational brochures on depression, child development, psychosis, post-traumatic stress disorder, and dementia. A total of 1,452 health workers participated in training courses on mental health-related interventions, management of mental health in emergency care, psychological first aid, and interpersonal psychological support. The WHO QualityRights toolkit to improve the quality and human rights aspect of mental health services was piloted in two facilities providing mental healthcare.

WHO provided communications expertise to assist the NMHP in developing a communication and media strategy to promote mental health awareness and in guiding media professionals on covering, reporting, and portraying stories about mental health.

WHO’s focus on integrating mental health into primary healthcare in Lebanon through the ‘Mental Health Gap Action Programme’ has definitely constituted an important building block in reducing stigma related to mental health and in promoting a more holistic approach to patient care for all populations in need in Lebanon; whether vulnerable Lebanese, Syrian Refugees or others.

Hala Abou Farhat
Inter Agency Health Sector Coordinator
Depression
Let’s Talk

Name: Hala Hussain Khalifa
Age group: 13-12 years
Country: Lebanon

Name: Hosenul Tahir
Age group: 13-12 years
Country: Pakistan

Name: Ali Mohamed Jaber Shamas
Age group: 15-14 years
Country: Lebanon

Name: Nahed Hamdan Al-Najar
Age group: 16-15 years
Country: Palestine
الاكتئاب
دعونا نتحدث عنه
Youth and school health

Risk factors survey

In the academic year 2016–2017, WHO conducted the Global School Health Survey in Lebanon, in close collaboration with the Ministry of Education and Higher Education. This is the third time WHO implemented the survey in Lebanon, with the support of the Centers for Disease Control and Prevention (CDC) in the USA as part of a collaborative surveillance project designed to help countries measure trends and assess the behavioural risk factors and protective factors among young people aged 13 to 17 years. Data was collected from 5,708 students (including Syrian children enrolled in public schools) in 64 public and private schools across Lebanon.

- Violence and serious injuries were prevalent, including being physically attacked, physically bullied, etc.
- Amongst those who reported ever smoking, drinking alcohol, trying drugs or having intimate physical relationships, most reported that their first time was before age 14 years.
- Almost 12% of students felt lonely most of the time or always, 13.5% seriously considered attempting suicide and 9.7% actually attempted suicide one or more times.
- The prevalence of good personal and oral hygienic behaviour was high.
- Almost 20% of students reported that they had used a drug without a doctor’s prescription, or differently than how the doctor told them to use it in the past year (mostly prescription opioids).
- With regards to health education in schools, 1/3 were taught about how to prevent HIV/AIDS or avoid pregnancy or sexually transmitted infections.

1/3 students were overweight or obese.
Cardiac screening for young students athletes

Undetected treatable heart conditions are the main underlying cause of sudden death among young athletes. As such WHO supported the CHAMPS Fund (a local specialized NGO) in its effort to introduce a medical screening exam for young athletes in 28 public schools. A total of 6 training sessions were held, and the programme will be expanded in 2018–2019.

“The support of WHO has been instrumental in spreading awareness on sudden cardiac arrest in youth especially athletes in public schools. WHO has been and always is a leader in supporting initiatives that address public health issues of great concern.”

Mona Osman
CHAMPS fund president, American University of Beirut Medical Center
School health environment

In line with the National School Health Strategy\textsuperscript{11}, WHO supported a series of workshops to introduce the national guidebook on Physical School Environment Parameters (developed in 2014) to 270 public and private schools across the country, reaching around 350 school directors and health inspectors. Further training is planned for the biennium 2018–2019.

E-Learning for health

During 2016–2017, WHO continued the expansion of e-learning in schools, an innovative health education method introduced to Lebanese public schools by WHO in 2008. In addition to the already adapted e-health modules “Staying Fit,” “Fighting for Our Lives” (on tobacco), and “Reproductive Health and HIV,” a new module on Road Safety was adapted to the Lebanese setting and introduced to 57 schools. In addition, WHO supplied 1,200 schools across Lebanon with 7,950 DVDs on the original three modules, as well as supplying headsets and printed copies of the pre- and post-tests associated with the e-health modules.

Health system support

Consolidating the collaborative governance approach

The collaborative governance approach of the MOPH is a unique characteristic of the Lebanese health system and has proved to be a promising governance model adapted to the complex Lebanese stakeholder context. WHO provided technical assistance to the MOPH and recommended the development of the model in two directions: a “technical” institutionalization of the reliance on evidence, information, and networking with academic institutions that has characterized the ministry’s work over the last two decades; and a “political” effort to build social consensus and support for collaborative efforts to rationalize the health sector. The establishment of a “Policy Support Observatory” was recommended, with the objective of providing structured analytical and decision support capacity in line with the MOPH’s needs.

Health technology assessment

WHO provided technical support to the MOPH's effort to reinforce its regulatory capacity in health technology, through outsourcing the Public Health Institute at Université Saint Joseph to conduct a needs assessment and gap analysis of existing national resources and capacity related to the establishment of a national Health Technology Assessment (HTA) program in Lebanon. Recommendations based on the assessment serve as the basis for the establishment of a national HTA program. Recommendations include the establishment of a national multidisciplinary HTA committee and/or agency with a mandatory framework suitable for the Lebanese context and the development of an HTA capacity building program in terms of expertise, data, financial resources, scientific and technical capabilities with solid methodological background.

Building health management information systems

Clinical trials registry

The MOPH requested the support of WHO to establish a national clinical trials registry, a pressing issue that reflects the ministry’s commitment to significant improvements in medicines governance and comes out of previous efforts supported by WHO since 2010. With WHO support, the MOPH issued a regulation to improve transparency and accountability of clinical trials in early 2016. A software was developed based on the WHO global software for clinical trial registries and linked to the latter. The registry is expected to be fully functional by mid-2018.
Registries

WHO supported the American University of Beirut Vascular Medicine Program in carrying out a two-year pilot study for establishing a stroke and cardiovascular disease detection, prevention, and management system in Lebanon. The pilot phase enrolled stroke patients and their immediate caregiver in three hospitals and entailed collecting information on risk factors and life style and dietary habits. The registry is integrated in the Vascular Medicine Program to allow its sustainability.

To address the lack of information on trends in mental disorders and in mental healthcare, WHO supported the NMHP in piloting an ambulatory electronic National Mental Health Registry, which collects data from private sector psychiatrists, PHC centres and hospitals.

WHO also supported the maintenance of the cancer registry, by providing technical support to improve the quality of the data recorded, expand the database to include additional variables such as recording staging of cancer upon presentation, and accelerate data entry by supporting additional temporary staff.

Civil registration and vital statistics system

In response to obstacles faced in reinforcing the Civil Registration and Vital Statistics system (CRVS) at the Ministry of Interior, WHO, in close coordination with the MOPH, supported the establishment of an alternative hospital-based system for reporting causes of death. WHO support included training of MOPH statistics and IT departments on CRVS quality control (ANACONDA); developing a web-based IT platform linking the deaths notification system to the existing maternal and neonatal death observatory; training all private and public hospitals on the new digitalized causes of death system; and providing staff support to the MOPH statistics department team. During the last 6 months of 2017, more than 20,000 hospital deaths reports were available at the MOPH through this system, providing important data on causes of death and hence filling an important knowledge gap.

Patient safety monitoring

WHO supported a pilot project to establish a national network for monitoring patient safety at hospitals, in collaboration with the Lebanese Society of Quality and Safety at Hospitals. Based on WHO patient safety recommendations, a booklet and an animated short film on patient safety were developed to educate patients about both their rights for safe healthcare and their duties to avoid “unsafe” practice. In addition, indicators related to patient safety were defined and proposed for the establishment of the national patient safety surveillance network.
In 2015, the MOPH established a national committee for palliative care, with the objective of developing palliative care services in Lebanon. In 2016, WHO and the ministry explored a model of hospital-based palliative care that would be extended to home care. The project was implemented by a national NGO specializing in palliative care (SANAD), using the Rafic Hariri Governmental University Hospital as a pilot site. WHO worked with the MOPH and SANAD to develop the experimental palliative care model and indicator framework for the evaluation of the pilot phase. A detailed report with estimated costs was proposed to the MOPH, and is awaiting final adoption by the national palliative care committee.

"WHO’s support has been instrumental in building a much needed foundation, strengthening palliative care in Lebanon and in advocating for it as a human right in health for all patients."

Lubna Izziddin
Founding President, SANAD
Control of communicable diseases

Poliomyelitis prevention and control

Lebanon was certified as polio-free by the Regional Commission for the Certification of Poliomyelitis Eradication in 2012. However, in light of the Syrian crisis, the MOPH has declared polio as an emergency and has joined efforts with the support of WHO and UNICEF to halt the transmission of the wild polio virus.

Acute flaccid paralysis surveillance

Nationwide acute flaccid paralysis (AFP) surveillance, the gold standard for detecting polio cases, is key to keeping Lebanon polio free. WHO supports AFP surveillance through enhancing the human resource capacity of the MOPH in Lebanon’s 8 governorates. In addition, WHO intensified its support for advocacy, information, education and communication, through the development and printing of educational collateral material targeting various health professionals as well as parents. As a result, AFP surveillance indicators markedly improved to match international standards (table 2).

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<thead>
<tr>
<th>TABLE 2</th>
<th>AFP SURVEILLANCE INDICATORS, 2008-2017</th>
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<td><strong>AFP indicators</strong></td>
<td><strong>2008</strong></td>
</tr>
<tr>
<td>AFP cases</td>
<td>18</td>
</tr>
<tr>
<td>Non-polio AFP rate</td>
<td>1.62</td>
</tr>
<tr>
<td>% adequate stool collection</td>
<td>78</td>
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<tr>
<td>Wild poliovirus cases</td>
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<tr>
<td>cVDPV cases</td>
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</tbody>
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*2017 data is based on AFP cases from week 1 to 45, 2017  
**Annualized AFP rate based on data from week 1 to 45, 2017  
cVDPV: circulating vaccine-derived poliovirus  
Source: Ministry of Public Health, 2017
Supplementary immunization activities in response to polio outbreaks in Syria

In 2016, two rounds of sub-national mop-ups were carried out in 242 areas classified as high risk, targeting 136,253 children under five in a house-to-house approach (with 89% effectiveness). In 2017, a mop-up campaign with similar targets was implemented in 209 most vulnerable cadastres.

WHO supported the MOPH financially and technically in its preparations for the mop-up campaigns, through MOPH macro-planning at the central level, and physicians micro-planning in local areas, training around 1,000 health workers from mobile and fixed vaccination teams and developing an intra-campaign monitoring tool.

Polio preparedness plan and Polio outbreak simulation

In 2016, a vaccine-derived polio outbreak occurred in Syria, posing a significant risk of spread to Lebanon. Accordingly, the MOPH and WHO updated the Lebanon National Polio Preparedness and Response Plan and organized a polio outbreak simulation exercise.
Environmental surveillance

As part of the National Programme for Poliovirus Eradication, WHO supported the MOPH in establishing an environmental Polio surveillance to detect the Wild Polio, Vaccine Derived Polio, and Sabin viruses.

More broadly, WHO Lebanon is supporting the MOPH in its efforts to expand the environmental surveillance plan to collect samples from sewage wastewater collection sites in high risk areas; support includes procurement of equipment and supplies as well as recruitment of Environmental Surveillance Unit staff.
Support to the Vaccine Preventable Infections Program of the MOPH

WHO has supported the MOPH in the establishment of a multi-year strategy for the Expanded Program on Immunization (EPI). The development of the plan was derived from the main axes identified in the national immunization policy document. The strategy is meant to improve health and well-being of the population through the reduction of vaccine preventable disease related morbidity and mortality, in line with the Sustainable Development Goals, namely target 3.2. The vision is to reduce the risk of occurrence of vaccine-preventable diseases, maintain the country’s free polio and neonatal tetanus statuses, and eliminate measles through providing quality immunization services and optimizing access to quality vaccination services. Moreover, WHO supported the MOPH technically in its preparations for the accelerated immunization activities that aimed at strengthening routine immunization, through the development of the EPI accelerated activities protocol and support in training healthcare and social workers from mobile and fixed centres.
Combating antimicrobial resistance

During the biennium 2016–2017, WHO reinforced Lebanese efforts to combat antimicrobial resistance (AMR), based on the WHO AMR Global Plan, by supporting key national interveners in close coordination with the National Antimicrobial Resistance Steering Committee.

WHO supported a pilot proficiency testing project for around 35 laboratory professionals from public and private hospital-based medical laboratories. In collaboration with experts from the American University of Beirut and from Université Saint Joseph, WHO developed recommended Standard Operating Procedures (SOPs) for AMR surveillance in laboratories. In line with the Global AMR plan, WHO and the MOPH developed a National Infection Prevention and Control (IPC) Strategic Plan and a related framework of action. So far, this effort has resulted in the publication of a national guidebook for IPC and clinical management recommendations for several categories of infections.
In cooperation with the Ministry of Agriculture, WHO carried out a series of awareness-raising workshops on the use of antibiotics in the animal husbandry industry.

On the occasion of the World Antibiotic Awareness Week, WHO joined the MOPH, the Ministry of Agriculture, and the Lebanese Society for Infectious Diseases and Clinical Microbiology to launch a call for the rational use of antibiotics.

A total of 171 staff from 117 hospital-based laboratories were trained on AMR surveillance and SOPs. In addition, 21 hospital-based laboratories were trained in the use of WHONET, a software developed for global reporting, management, and analysis of microbiology laboratory data; and 4 hospitals were trained on how to report on the Global Antimicrobial Resistance Surveillance System for international use.

WHO has supported the MOA with technical guidance in assessing human animal health issues as Zoonotic Diseases, Food Safety, etc. The key component of good veterinary and public health governance is inter-sectoral communication, coordination and collaboration between the concerned authorities which will eventually lead to the concept of One World One Health.

Abeer Sirawan
Head of Poultry Husbandry Department, Ministry of Agriculture
**HIV/AIDS, and sexually transmitted infections (STI)**

The MOPH entrusts WHO with the administration of its National AIDS control program (NAP). WHO supported the NAP in carrying out a detailed situation assessment using the HIV test-treat-retain cascade assessment tool, and subsequently supported the development of a national HIV/AIDS/STI strategic plan for 5 years. The NAP relies on the NGO sector for the implementation of the outreach and awareness activities, and has succeeded in providing, through its antiretroviral dispensing centre, free of charge treatment to all people living with HIV, based on the updated treatment protocols developed in 2016.

**Tuberculosis control**

Lebanon witnessed a moderate increase in the number of tuberculosis cases, attributed mainly to Syrians and migrant workers. Three cases of extensively multi-drug resistant tuberculosis were reported during the biennium. In response, WHO swiftly revised the national tuberculosis strategy. A detailed 5-year plan of action was also developed with WHO technical support to finalize the update of national clinical management guidelines for tuberculosis cases as well as related SOPs.

To address the high incidence of latent tuberculosis, WHO supported decentralizing the case management based on revised clinical protocols and developed an IT platform in all public out-patient tuberculosis clinics to standardize care and real-time reporting of such cases.
Health security

The International Health Regulations Trust Fund

Through a yearly trust fund, the WHO Country Office has been entrusted by the MOPH to support the establishment of the needed capacities for the implementation of the International Health Regulations (IHR) (2005). Accordingly, WHO Country office has focused its support on contingency planning, surveillance, response teams’ capacity building, and points-of-entry health unit construction.

Contingency planning

The WHO Country Office provided technical support to the MOPH and national institutions to improve the preparedness for all types of health emergencies, including bioterrorism, infectious disease outbreaks, and natural disasters. Rapid situation and risks assessments were conducted in each of Lebanon’s eight governorates, with the participation of community representatives, to determine strengths and weaknesses of emergency preparedness. The initiative resulted in a specific health contingency plan for each governorate.

Hazard management teams

WHO has invested heavily in preparedness and capacity building for Chemical, Biological, and Radio Nuclear (CBRN) threats. In line with the National CBRN committee plan, WHO coordinated with the MOPH to support the training of Hazards Management Teams (HAZMAT) in Beirut and in Tripoli, and plans are underway to have a third HAZMAT team established in the Bekaa region. A drill was completed in Beirut, and another one is planned in Tripoli for 2018.
Early Warning Alert and Response System

WHO supports both the national surveillance system and the Early Warning, Alert, and Response System (EWARS) across Lebanon, a priority-level intervention in the context of the Syria crisis. In 2016–2017, EWARS expanded at an accelerated rate, and routine surveillance was steadily reinforced. A digitalization of the surveillance and reporting system at the central and peripheral levels was initiated with WHO support, with the aim of establishing, by 2019, a digital tracking system that will provide PHC facilities, hospitals, district, regional, and central MOPH teams real-time access to cases of communicable diseases. WHO is currently training central, regional, and district teams on the electronic reporting system. Expansion to PHC facilities across the country is planned for 2018–2019.

WHO publishes on monthly basis the Epi-Monitor, in coordination with the MOPH team, on thematic public health issues.

National epidemic preparedness and response plans and detailed SOPs for infectious disease epidemics, including Ebola, pandemic influenza, and cholera, have been put in place. Two isolation rooms at the national referral Governmental hospital in Beirut (the Rafic Hariri University Hospital) were established.

Reinforcement of the points of entry

The capacity to monitor potential health threats at points-of-entry to Lebanon is being reinforced through the construction of health units at the ports of Beirut and Tripoli and the main land crossings, with additional units to be constructed in the coming years at remaining official land crossings and sea ports. The monitoring SOP is based on the recently updated Lebanese IHR draft framework law, whose implementation regulations were completed early in 2016 with WHO support.

Pandemic Influenza Preparedness

Lebanon is participating actively in the implementation of the WHO pandemic influenza preparedness framework for the sharing of influenza viruses and access to vaccines and other benefits. With the support of WHO, the MOPH established a surveillance system for Severe Acute Respiratory Infection (SARI) and other Influenza-like Illnesses (ILI). A total of 12 sentinel surveillance sites have been established, as well as the National Influenza Centre (NIC) at Rafic Hariri University Hospital.

Several international expert missions have assessed the epidemiological surveillance efforts. WHO support included the procurement of reagents and consumables and selected laboratory and IT equipment for the proper functioning of the NIC and the sentinel sites. In addition, WHO supported the production and dissemination of information, education and communication material, including the SARI protocols.
Food safety

WHO assisted the MOPH’s effort to structure the food safety inspection process, in the context of the ministry’s accelerated food safety campaign. Food safety inspection SOPs and tools were developed and a series of training sessions were held for 170 public health inspectors and MOPH staff, as well as for nutritionists and food handlers.
Overview of funding received

The total budget received by WHO for 2016–2017 was 14.3 Million USD.

Table 3 describes in details the funding for each respective area of work, while table 4 shows a breakdown of the different donors funding the emergency response.

<table>
<thead>
<tr>
<th>Area of work</th>
<th>Funding (USD)</th>
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<tbody>
<tr>
<td>Communicable diseases prevention and control</td>
<td>594,365</td>
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<tr>
<td>Non-communicable diseases and mental health prevention and control</td>
<td>664,313</td>
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<tr>
<td>Promoting health through the life course</td>
<td>236,595</td>
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<tr>
<td>Strengthening health systems</td>
<td>584,834</td>
</tr>
<tr>
<td>Preparedness, surveillance, and response</td>
<td>1,259,094</td>
</tr>
<tr>
<td>Operational support (corporate services/ enabling functions)</td>
<td>1,354,988</td>
</tr>
<tr>
<td>Polio (special program)</td>
<td>1,245,096</td>
</tr>
<tr>
<td>Pandemic Influenza Preparedness (special program)</td>
<td>248,500</td>
</tr>
<tr>
<td>Emergency funding (outbreak and crisis response)</td>
<td>8,106,559</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14,294,344</strong></td>
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Table 4 | EMERGENCY FUNDING BY DONOR

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<tr>
<td>675,801</td>
<td>2,357,387</td>
<td>388,280</td>
<td>1,080,000</td>
<td>185,397</td>
<td>3,419,694</td>
</tr>
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Grand Total: **8,106,559 USD**
Future outlook

In line with Lebanon’s health needs, and as stated clearly in the National Health strategy, the key strategic issues for WHO support should remain “how to strengthen the MOPH capacity to promote sector governance, leadership and accountability on one hand, and; how to maintain and improve population health status and health security on the other hand; particularly in an environment of considerable risk and uncertainty.”

The years 2016–2017 were the last biennium of the Country Cooperation strategy (2010–2015) that was extended for two additional years (2016–2017).

In the next five years, WHO will be focusing its support on the three priority areas of the WHO 13th General Programme of Work.

Priority 1 – Health coverage: Develop the health system towards Universal Health Coverage (UHC)

Key areas of work include:

- Strengthen health system governance, national health policies, and regulatory frameworks (health policy support observatory; national health fora; human resource strategy; health information system master plan; electronic health record);
- Establish instruments for modernised sector management (electronic surveillance system; e-health record; e-supplies management; pharma barcode system);
- Engage in an open and broad-ranging review of financing options;
- Build systems and capacity for the provision of quality people-centred primary care;
- Improve capacity for optimizing choice of medicines and health technologies for UHC (HTA).

Priority 2 - Protect health: Develop and maintain emergency preparedness and health security

Key areas of work include:

- Support consolidation and expansion of surveillance and prevention programs for high-threat infectious hazards (EWARS);
- Support the evaluation and strengthening of IHR core capacities (decentralized emergency preparedness plans; HAZMAT teams; simulation exercises; points-of-entry facilities); and
- Provide technical leadership for the health response to the Syrian refugee crisis and contribute to maintaining essential health services for Syrians refugees.
Priority 3 - Health priorities: Improve health and well-being across different life stages

Key areas of work include:

- Work with government institutions, legislators, civil society, and UN partner agencies to support the adoption and implementation of health-promoting policies, laws, and regulations (focus: tobacco, salt);
- Support the monitoring of main risk factors and the modelling of the health, social, and economic benefits of addressing them;
- Promote health and rights literacy and people’s participation and engagement in health to reduce risk factors;
- Strengthen preventive programs to reach the underserved populations at different life stages (focus: expanded program on immunization; mother and child health; noncommunicable diseases; and
- Strengthen policies and systems for tackling antimicrobial resistance.

WHO will continue its technical support, will reinforce further its advocacy for additional support to the health system development, and will continue fund raising to fill the gaps in the health delivery system. Innovation, generation of health intelligence, and using technology for the upgrading of the health system’s resilience will be central to WHO’s support to Lebanese healthcare in the future. WHO will support the national dialogues related to critical strategic health issues, to ensure that sustainable development goals and the national health strategy are addressed.