



World Health  
Organization

Lebanon

# Restoring hope A year of public health progress in Lebanon

## Annual report 2023





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# **Restoring hope** **A year of public health progress in Lebanon**

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# About this report

Lebanon's 2023 annual report showcases WHO's major areas of work and achievements in Lebanon in 2023. The report highlights the Organization's positive impact and reach across the nation amid the many challenges facing the country. WHO strives to ensure that everyone in Lebanon has the right and equal opportunity to reach the highest level of health and well-being.

This report strives to ensure transparency and showcase the value and benefits of investing in WHO Lebanon and Lebanon's health system in general.

The report is structured to highlight the key efforts of WHO's work in Lebanon in 2023, detailing progress in key areas, such as:

- › expanding and enhancing universal health coverage
- › protecting the vulnerable and responding to health emergencies
- › guiding people to longer, healthier lives
- › digitalizing health services for better health outcomes
- › raising awareness on critical health issues.

WHO is grateful to our donors for their ongoing support of our work.

- › Agence Française de Développement (AFD), France
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- › Novo Nordisk Foundation
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- › United Nations Central Emergency Response Fund (CERF)
- › United States Centers for Disease Control and Prevention (CDC)
- › United States Agency for International Development (USAID)
- › United States Department of State (USDOS)
- › WHO Contingency Fund for Emergencies (CFE)



# Foreword

Lebanon's health system remains fragile. We hear this every day. In 2023, Lebanon faced immense challenges that affected its population's health and well-being. The country was hit hard by a major financial and political crisis, the country grappled with reduced access to essential health services, which resulted in the deterioration of health indicators, reversing years of gains in maternal, child and neonatal health and leading to increased mortality rates among these populations. Vaccination rates declined, access to essential health services was limited and medication and supply shortages compounded these issues.

Three years have passed since the 4 August devastating Beirut Port explosions that shook the nation and destroyed essential health infrastructure, which has yet to be fully rebuilt. A brain drain of health care professionals exacerbated human resource shortages. Governance remains an ongoing challenge while Lebanon continues to host the largest number of refugees in the world per capita and square kilometre. Meanwhile, the escalations of hostilities in southern Lebanon and the wider war in the Gaza Strip threaten to further destabilize an already fragile health system.

The increased risk of disease outbreaks, including vaccine-preventable and waterborne diseases, loomed large across the country. In this context, any major disease outbreak, disaster or conflict could quickly overwhelm a weakened health system.

While some may argue that events in 2023 pushed Lebanon's health system to the brink, I believe that the health system demonstrated an immense resilience in withstanding many shocks. This ability to recover from any hardship proves that with increased investment, expanded health services and enhanced capacities, we can get the health system back on track.

Many opportunities to restore hope in health emerged in 2023. For example, Lebanon's first cholera outbreak in 30 years posed huge risks for the entire health system when it was first detected in October 2022. However, with support from WHO and many partners, the Ministry of Public Health declared the outbreak over in June 2023; proving that the country could withstand a deadly disease outbreak.

WHO support to the Ministry of Public Health helped the country achieve many successes in 2023 at different levels. Some of these achievements included developing and launching Lebanon's national health strategy, revitalizing Lebanon's Public Health Emergency Operations Centre (PHEOC), building the capacity of thousands of health care professionals at the primary health care (PHC) level, ending an mpox outbreak, procuring essential medications for one million beneficiaries, recruiting more than 7500 physicians and nurses for hospitals, driving a 30% increase in emergency disease surveillance coverage and introducing seasonal influenza vaccine. These are just some of the examples of achievements that have demonstrated the resilience of Lebanon's health system, despite its fragility.

We did some amazing work in 2023. I am proud of the WHO team in Lebanon, and I am pleased to say that, in one way or another, our work positively impacted the lives of millions of people. Our team has more than doubled in size since 2020, and I thank and acknowledge them for their tireless work. My gratitude also goes to the WHO Regional Office for the Eastern Mediterranean and WHO headquarters for their invaluable support.

I deeply appreciate our strong partnership with the Ministry of Public Health and close collaboration and coordination with diverse health sector partners. Our work would not be possible without the generosity of our donors, and I wish to express my deepest gratitude for their ongoing support.

Building on joint efforts, WHO continues its collaboration with the Ministry of Public Health, alongside other ministries, such as the Ministry of Economy and Trade, the Ministry of Education and Higher Education and various other partners to scale up the response to the urgent needs and coordinate interventions to restore and strengthen the health system, improve public well-being and address the broader public health challenges. However, greater commitment requires greater resources and we take this opportunity to appeal to the international community for support to achieve our goals.

**A stronger health system means a stronger Lebanon. By learning from the challenges and experiences of 2023, we can push Lebanon forward and work in harmony to promote health for all.**

*Dr Abdinasir Abubakar, WHO Representative a.i. in Lebanon*



# Acronyms and abbreviations

<b>CERF</b>	Central Emergency Response Fund
<b>CFE</b>	WHO Contingency Fund for Emergencies
<b>CPHL</b>	Central Public Health Laboratory
<b>DHIS2</b>	District Health Information Software 2
<b>EPI</b>	Expanded Programme on Immunization
<b>EWARS</b>	Early Warning, Alert and Response System
<b>GIS</b>	Geographic Information System
<b>ICU</b>	Intensive care unit
<b>IPC</b>	Infection prevention and control
<b>LMS</b>	Logistics and management system
<b>IYCF</b>	Infant and Young Child Feeding
<b>MICS</b>	multiple indicator cluster surveys
<b>PHC</b>	Primary health care
<b>PHEOC</b>	Public Health Emergency Operations Centre
<b>PIVI</b>	Partnership for Influenza Vaccine Introduction
<b>PPE</b>	Personal protective equipment
<b>PSA</b>	Pressure swing adsorption
<b>PSEAH</b>	Prevention of sexual exploitation, sexual abuse and sexual harassment
<b>PHEIC</b>	Public Health Emergency of International Concern
<b>OCV</b>	Oral cholera vaccine
<b>RSV</b>	Respiratory syncytial virus
<b>SDGs</b>	Sustainable Development Goals
<b>TB</b>	Tuberculosis
<b>UHC</b>	Universal health coverage
<b>UNDP</b>	United Nations Development Programme
<b>UNICEF</b>	United Nations Children Fund
<b>WASH</b>	Water, Sanitation and Hygiene
<b>WHO</b>	World Health Organization



# About WHO

The WHO Representative's Office in Lebanon supports the Government and health authorities at all levels in strengthening the health system, addressing public health emergencies and supporting and promoting research for health.

As the lead health agency, WHO works with national health authorities and many national partners to support countries in reaching their national health development goals and to ensure that its efforts are coordinated. Across the Eastern Mediterranean Region, these include United Nations agencies, humanitarian and development partners, donors, national and international nongovernmental organizations, WHO collaborating centres, as well as government, academia and the private sector.

Since its establishment in Lebanon in 1951, WHO has sought to support the Government of Lebanon and partners in:

- › policy and strategy development support
- › institutional capacity-building
- › health technology and information
- › standard setting
- › knowledge transfer and capacity-building
- › support in surveillance and monitoring population health
- › response to emergencies.

WHO will continue to respond quickly and effectively to health emergencies while providing support to build more robust health systems, promote health justice and improve population health to reach the Sustainable Development Goals (SDGs) and help Lebanon progress towards universal health coverage (UHC).



# WHO Lebanon: 2023 at a glance

**> 1.5 million**

oral cholera vaccine doses procured

**> 1 million**

vulnerable beneficiaries accessed high-quality, effective medication

**10 000**

seasonal influenza vaccines donated to the Ministry of Public Health

**3092**

health workers in 125 hospitals trained in the clinical approach to trauma care

**901**

health workers trained in health care waste management

**7**

new pressure swing adsorption (PSA) oxygen generator plants established at 7 public hospitals

**20**

new paediatric intensive care unit beds established at 4 public hospitals

**> 100** hospitals and **200** community pharmacies using MediTrack, a 2D barcode track and trace system for medications

**6**

hospitals assessed for malnutrition management

**Critical support**

developing and implementing the national cancer plan

Financial coverage of **3978** hospital patients admitted for lifesaving and limb-saving conditions

GIS mapping for **> 12 000** health care facilities and health specialists

**2794**

health care workers trained in resuscitation (basic and advanced life support)

**195**

health care workers in 40 hospitals trained on mass casualty management

**30%**

expansion of WHO's emergency disease surveillance system

**1**

free-of-charge home-based palliative care model developed at community level

**6**

hospital water quality monitoring laboratories strengthened

# Lebanon's national health strategy

Lebanon's National Health Strategy: Vision 2030, which was launched in January 2023, sets out the framework for a sustained and modernized recovery of the health sector and intends to address the challenges of leading a fragile health system. Through the strategy's five pillars (Fig. 1) and under the leadership of the Ministry of Public Health, WHO and health sector partners joined efforts to respond to the country's escalating unmet health needs and participate in building a stronger, more resilient health system.

The launch of the national health strategy marked an important milestone toward reforming Lebanon's health sector. The strategy promotes partnership in support of health and aligns the work of all government institutions, the private sector and partners to improve the population's overall health.



**Fig. 1. Five pillars of the national health strategy**



Enhancing the **governance of the health sector** and institutionalizing evidence-informed policy and decision-making (including health financing).



Positioning **primary health care** as the cornerstone for the delivery of quality basic services, while ensuring financial protection and serving as a gateway to secondary and tertiary care, as well as a spectrum of public health interventions.



Investing in public health system strengthening and **emergency preparedness** is imperative to ensuring system resilience and adaptability (Public Health Emergency Operations Centre and Central Public Health Laboratory).



Highlighting **digital transformation** as a fundamental intervention to enhance transparency and accountability and contribute to regaining trust in public institutions.



Identifying the shortage in health care workers as the biggest challenge to the health system and addressing the root causes of the **health care workforce** drain, by improving the working conditions at health care facilities and developing a health care workforce recovery roadmap with short-, medium- and long-term perspectives.





## Section 1

# Expanding and enhancing universal health coverage

# 1 Expanding and enhancing universal health coverage

## 1.1 Introduction

Universal health coverage (UHC) means that all people have access to the full range of quality health services they need, when and where they need them, without incurring financial hardship. With

Lebanon making limited progress towards UHC, WHO spearheaded efforts to reorient health systems towards a primary health care (PHC) approach. The need for this shift remains clear.

*The number of people accessing basic services through government PHC centres more than doubled between 2019 and 2023, reaching over 3.4 million beneficiaries in 2023, compared to fewer than 1.5 million in 2019.*

Recognizing PHC as the most inclusive, cost-effective way of achieving UHC, WHO Lebanon focused on enhancing PHC to bring essential health services closer to communities and strengthen the health system's resilience, particularly to help ensure access to care for the most vulnerable population groups.

Throughout 2023, WHO led and supported various initiatives aimed at strengthening PHC, thus contributing to Lebanon's progress towards UHC.

## 1.2 Piloting the people-centred primary care approach

Lebanon piloted the people-centred primary care approach at five PHC centres, including at one prison, with WHO support.



The **people-centred primary care** approach places the person, rather than their disease, at the centre of health care services.

Under this approach, **the person is a partner in their own health and helps design the service**. As the PHC centre becomes the main source of health care, a relationship of trust with the person is created.

The people-centred primary care pilot project showcased that instituting a change in culture where service users (patients) have a bigger say in their treatment and care preferences, along with acceptance, is possible. In close collaboration with the Ministry of Public Health, WHO worked directly with a multidisciplinary team of experts, including nurses, social workers, nutritionists, family physicians and PHC managers.

The pilot project included a 16-week competency-based curriculum, including in-person training, digitalized self-paced materials, online and onsite coaching and the establishment of community participation groups, which included individuals from the community who visited a centre frequently. The groups focused on giving a voice to service users and forming a partnership in health care

service design. At an event conducted in December 2023, participants from the health care teams at PHC centres shared their final projects and views on the initiative, in addition to receiving feedback from service users on their experience. Following the success of this approach, the project will be expanded further in 2024.

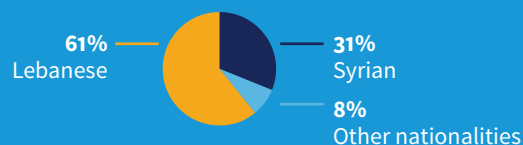
### Improving the health of prison inmates – people-centred primary care approach in confined settings



Lebanon's **25 prisons** are overcrowded, with around **6000 inmates** in prisons at any point in time.

**Around 60%** are housed in Roumieh Central Prison, Lebanon's largest prison.

Roumieh Central Prison's population:



Poor hygiene, overcrowding and lack of access to consistent health care leave prison inmates disproportionately vulnerable to health calamities. In an effort to "leave no one behind," WHO implemented a project in central and female prisons with the objective of improving access to health care services and addressing the often neglected, unmet health needs of prison inmates.



A patient has blood pressure monitored at PHC centre in Beirut

WHO's work with the Lebanese Internal Security Forces health department, and in coordination with the Ministry of Interior and Municipalities, resulted in:



a **comprehensive health assessment** of prison inmates being conducted;



an **essential health care packages** focused on hypertension and diabetes being implemented;



the **development of automated medical files** being designed and initiated (in 2023);



**guidance on nutrition** being offered with a focus on inmates with noncommunicable diseases (NCDs);



periodical **thematic health education** being provided;



**medical equipment** for prisons procured.



WHO's innovative intervention in the prisons ensured proper documentation of prisoners' health status. Using the prison experience as a model, WHO plans to reach other people in confined settings in need of NCD and mental health services, such as homes for older people, orphanages and individuals living in long-term institutions.



Delivery of medical equipment to Roumieh Central Prison

### 1.3 Addressing quality of care at PHC centres

In addition to the services covered, the populations targeted, and the financing sources and options, the fourth dimension of UHC is the quality of care. Ensuring high-quality care is crucial for safeguarding a population's health and preventing avoidable morbidity and mortality. In this context, WHO's support emphasized a comprehensive approach, which included conducting a medical chart audit and subsequently updating the algorithms of care.

#### 1.3.1 Conducting a medical chart audit

With the support of WHO, a medical chart audit took place in 2023; the third in three consecutive years. The focus was on evaluating medical practices within

PHC centres, identifying areas to improve quality of service delivery and documentation of patients' files.

The assessment consisted of pre-planned and coordinated visits to selected PHC centres and a review of a sample of medical records, both paper-based and electronic. The assessment revealed the need for improvement in the completeness of documentation and better adherence and conformity of the management of the clinical condition with the developed clinical care guidelines.

Accordingly, the assessment will inform the review of the PHC approach to care and support in related policy and standard setting work. WHO plans to roll out intensive training on chart documentation and clinical algorithms of care in 2024.



### 1.3.2 Optimizing algorithms of care

WHO supported the review and update of the clinical algorithms of care for the 34 most common conditions encountered at PHC centres, such as depression, hypertension and the common cold. These algorithms were based on an analysis of a sample of PHC consultations, which enabled the prioritization of these 34 medical conditions. The algorithms were developed in line with WHO recommendations, national guidelines and available medications and tests, and are in line with the people-centred primary care approach.

These updated algorithms were endorsed in a national consensus-building meeting in September 2023, by all concerned medical scientific societies at the Order of Physicians. A training of trainers session, organized by WHO, in collaboration with the Ministry of Public Health, reached 37 physicians from the active international and national nongovernmental organizations supporting PHC centres. Following this training, a series of training sessions were conducted for 195 physicians working in the Ministry's PHC network.



WHO facilitators at the training of trainers workshop on clinical algorithms



**Table 1. Top 34 diagnoses at PHC level for adults, excluding pregnancies**

General health	Chronic conditions	Other common medical conditions	Symptoms
1. General medical examination (preventive services)	5. Asthma	15. Anaemia	26. Abdominal pain
2. Cardiovascular disease risk assessment	6. Depression	16. Acute monoarthritis (Joint pain)	27. Chronic cough
3. Geriatric assessment	7. Diabetes mellitus - Type 2	17. Bronchitis	28. Functional dyspepsia
4. Healthy lifestyle	8. Dyslipidaemia	18. Common skin infections	29. Headache
	9. Hypertension	19. Constipation	30. Lower back pain
	10. Coronary artery disease	20. Acute diarrhoea	31. Palpitations
	11. Obesity	21. Common cold	32. Red eye
	12. Hypothyroidism	22. Otitis media	33. Sore throat
	13. Hyperthyroidism	23. Community acquired pneumonia	34. Vertigo
	14. Thyroid nodule	24. Sinusitis	
		25. Uncomplicated lower urinary tract infection	



Training of trainers workshop on clinical algorithms



## 1.4 Strengthening integration and access to NCD care at PHC level



NCDs are collectively responsible for **74% of all deaths worldwide**, and for the majority of deaths in Lebanon.

Premature deaths due to NCDs are most often linked to cancer, diabetes, cardiovascular diseases and respiratory diseases. NCDs share five major risk factors: tobacco use, physical inactivity, the harmful use of alcohol, unhealthy diets and air pollution.

As part of accelerating action on NCDs, WHO Lebanon focused its support on sustained access to essential services at PHC level, including strengthening

existing policies and guidance, screening and management of NCDs and delivering medications and medical supplies.



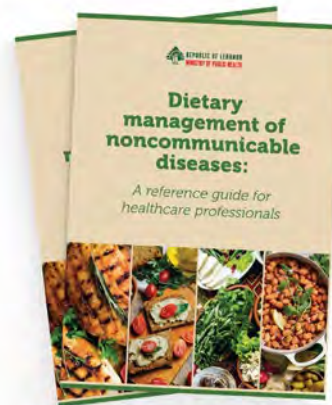
## 1.5 WHO technical mission on NCDs management and surveillance

WHO conducted a technical support mission in March 2023 to review the national efforts and initiatives on NCD care management and surveillance. The consultative process concluded

with the development of key recommendations in terms of governance, financing, service delivery, health workforce and surveillance.

## 1.6 Dietary management of NCDs: A reference guide

As nutrition is an essential factor in NCD prevention and management, WHO, in close coordination with the Ministry, developed a reference guide for the dietary management of NCDs, providing evidence-based nutrition and lifestyle recommendations for cardiovascular diseases and diabetes. The guide is a reference for PHC professionals in Lebanon, given their crucial role in the prevention and management of behavioural risk factors and the provision of therapeutic education that empowers and involves patients in self-management. Job aids and health education and self-management materials complemented the guide.



## 1.7 Assessing NCDs in long-stay facilities

Long-stay facilities, including homes for older people, and mental health institutions, have faced severe challenges in the last few years, especially due to the COVID-19 pandemic and the country's

socioeconomic crisis. In spite of all challenges, these facilities continue to play a crucial role in caring for vulnerable populations often isolated from society.

*WHO conducted a **comprehensive assessment of nearly 1000 residents across four long-stay facilities**, including psychiatric hospitals and homes for older people across Lebanon. The focus was on the early detection and management of NCDs.*

The assessment involved physical examinations, as well as mental health and social assessment for specific residents, conducted by a team of nurses, psychiatric nurses, social workers, family physicians, clinical pharmacists, nutritionists, speech therapists, ophthalmologists and psychiatrists. Additionally, the health assessment also included blood test levelling related to NCDs.

Facility management, staff and residents found this intervention crucial in helping to implement an assessment of the health needs based on protocols and an assessment of social needs and adjustment of the care plan based on the findings, with the ownership of the facility staff.

## 1.8 Taking the WHO STEPwise approach to NCD risk factor surveillance



**WHO's STEPwise approach** involves a simple, standardized method for collecting, analyzing and disseminating data on trends related to key NCD risk factors and prevalence of NCDs in countries, and is recommended to be conducted every five years.

In 2023, WHO supported the implementation of the third round of an updated STEPwise survey with a sample size of 4320 households. The survey collected information on NCD risk factors, physical measurements, collection of urine samples, and blood tests completed at point-of-care testing. In addition to the core and expanded modules of the survey, the 2023 tool included country-specific information related to household health expenditures and health-seeking behaviour. The survey's analysis and findings are expected to be finalized in 2024 in consultation with the Ministry of Public Health that should hopefully lead to new policy recommendations for NCDs.





Training on WHO's STEPwise approach

## 1.9 Prioritizing mental health

In recent years, Lebanon has seen an increased demand for mental health services, including more patients seeking mental health services at PHC centres. To address major gaps in mental health care, WHO worked closely with the national mental health programme on strategy updates, design and implementation of special initiatives, support for mental health awareness campaigns, review of technical guidance notes and pilot much needed strategies, such as establishing mental health wards in public hospitals.

### 1.9.1 Piloting national care model and packages for mental health at PHC

WHO supported the development and review of mental health care packages at the PHC level. The packages target priority mental health conditions, namely depression, anxiety and post-traumatic stress disorder. As part of capacity-building activities, WHO, in partnership with the national mental health programme, conducted a series of training sessions on the packages, targeting physicians, nurses, social workers and psychologists working at PHC centres.

*The training reached 96 health care providers from 12 PHC centres, including general physicians, psychologists, psychiatrists, nurses, midwives and social workers.*

The training also targeted staff from nongovernmental organizations supporting these centres. It highlighted the role that each health care professional plays as part of the care model and included discussions on screening, assessment and management tools. To complement the training, WHO developed mental health educational materials and counselling cards for use at PHC centres, plus other psychoeducation messages on mental health.

### 1.9.2 Updating the national mental health strategy

The national mental health strategy was reviewed in a consultative process with all stakeholders. The updated strategy is in line with WHO's Comprehensive Mental Health Action Plan 2023–2030 and focuses on the following four domains of action: governance and leadership, increasing access to quality services, promoting mental health and preventing mental disorders, as well as addressing mental health information systems and research. The strategy will be launched in 2024.



Acting WHO Representative Dr Abdinasir (centre) visits the mental health department at Tannourine Governmental Hospital

### 1.9.3 WHO QualityRights initiative



*QualityRights* is WHO's global initiative to **improve the quality of care provided by mental health and social services** and **promote the human rights of people with mental health conditions and psychosocial, intellectual or cognitive disabilities**.

The ultimate goal of *QualityRights* is to change mindsets and practices in a sustainable way and empower all stakeholders to promote rights and recovery to improve the lives of people with psychosocial, intellectual or cognitive disabilities everywhere.

In collaboration with the national mental health programme, WHO conducted an assessment of the

quality and human rights aspects of mental health in three residential facilities providing mental health services.

The assessment resulted in the following:

- › a pool of 49 well trained national assessors from multidisciplinary backgrounds with practical assessment experience;
- › residential facilities developing improvement plans to be progressively implemented;
- › more sensitized decision-makers regarding quality of care of these vulnerable population groups.

### 1.9.4 Accessing specialized mental health care – UHC approach

WHO established a mental health ward and outpatient department at Tannourine Governmental Hospital, a public hospital located in an extremely remote mountainous area in the north of Lebanon. The model will be piloted through 2024 and evaluated for potential replication in other public hospitals.



## 1.10 Scaling up the EPI programme

The Expanded Programme on Immunization (EPI) remains a cornerstone of Lebanon's PHC programme, providing the most vulnerable population groups with free access to routine vaccines, aligning with WHO guidance on UHC.

### 1.10.1 EPI Strategy update

In recent years, vaccine coverage in Lebanon declined significantly, mainly due to the compounded crisis. This decline prompted the revision and update of the national strategy for 2022–2026 through an intensive consultative process, with focus on main areas of intervention, including supply chain monitoring and vaccine delivery, sustainability improvements, the role of the private sector, adult vaccination, coverage monitoring and introduction of new vaccines.

This effort resulted in the following outcomes:

- › development of a comprehensive EPI strategy document and plan phased out over four years, in line with the national health strategy;

- › introduction of the respiratory syncytial virus (RSV) vaccine;
- › initiation of the readiness assessment for novel oral poliomyelitis vaccine type 2 (nOPV2) vaccine introduction for outbreak response in cases of circulation of type 2 vaccine-derived polioviruses;
- › initiation of preparatory discussions for the introduction of the human papillomavirus vaccine.

### 1.10.2 A new partnership with Gavi, the Vaccine Alliance

In 2023, Lebanon became eligible to receive vaccines from Gavi, the Vaccine Alliance, through special approval for fragile states supported by WHO. This means that Lebanon has become eligible to receive major stocks of routine vaccines for the next two and a half years. Advocacy by WHO and the United Nations Children Fund (UNICEF) proved critical in assuring Lebanon's agreement with Gavi, the Vaccine Alliance.

## 1.11 Supporting communicable disease programmes



**Communicable diseases**, including HIV/AIDS, tuberculosis (TB), malaria, viral hepatitis, sexually transmitted infections (STIs) and neglected tropical diseases (NTDs), are among the leading causes of death and disability in low-income countries and among marginalized populations.



Training for staff of the national AIDS control programme



The following sections highlight WHO's support to selected programmes of communicable diseases at the Ministry of Public Health.

- › expanding surveillance and response integration to STIs, including mpox.

### 1.11.1 HIV programme support

WHO staffed the national AIDS control programme and supported the full implementation of HIV programmatic activities in 2023.

#### This included:

- › updating the national strategic plan, 2023–2028;
- › conducting awareness activities among most at-risk populations through 10 specialized nongovernmental organizations;
- › supporting voluntary testing and counselling in more than 30 designated health centres with nongovernmental organizations, providing ART and monitoring diseases progress in more than 2400 patients living with HIV;
- › implementing the integrated biological and behavioural surveillance survey;
- › monitoring disease spread at national level through vigilant surveillance;

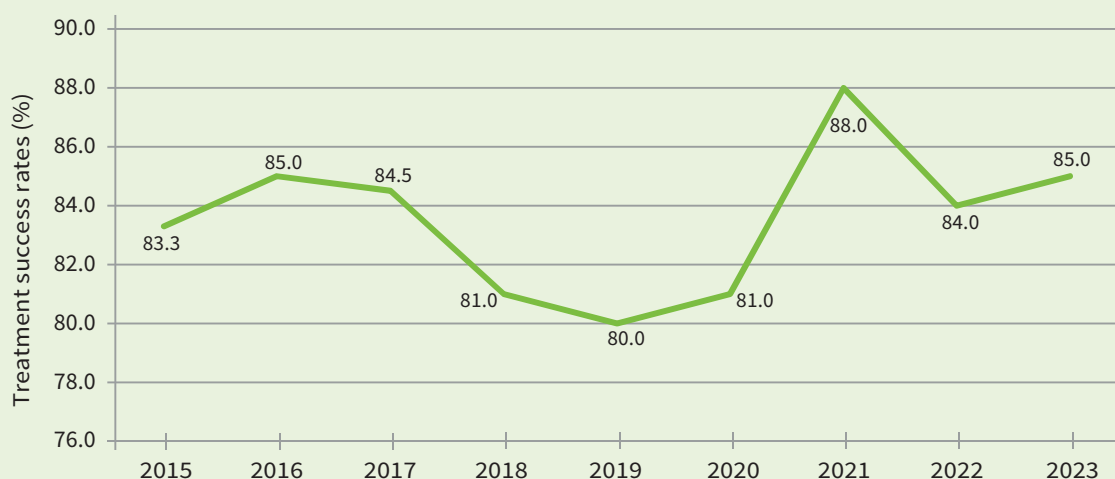
### 1.11.2 Support to TB programme

WHO technical support to the TB programme at the Ministry of Public Health resulted in an updated National TB Programme strategic plan for 2023–2028.

#### The focus was on:

- › enhancing the directly observed treatment, short-course (DOTS) programme, which has contributed significantly to a high treatment success rate and moved Lebanon closer to TB elimination;
- › raising awareness in communities with a high incidence of TB;
- › ensuring effective treatment and cure;
- › supporting an outreach system allowing for early detection and treatment of TB cases, including the refugees and migrant workers;
- › facilitating the integration process of HIV/STI in the TB programme at the Ministry of Public Health.

**Fig. 2. Trends in TB treatment success rate 2015–2023**



Note: Treatment success count = cured and treatment completed

### 1.11.3 Support to the neglected tropical diseases programme

WHO support for the neglected tropical diseases programme at Ministry of Public Health resulted in procurement of medications for the malaria

programme, covering around 300 patients per year, most of them imported cases from endemic areas, and procurement of rabies vaccines for around 1000 patients.

## 1.12 Expanding UHC through access to advanced care

### 1.12.1 Increasing access to the paediatric intensive care unit

At a hospital, the paediatric intensive care unit typically provides the highest level of care for a child with severe illness or conditions. In Lebanon, the distribution of paediatric intensive care units is uneven, with access limited for many of the most vulnerable children.

As part of its support to ensure poor and vulnerable people have readily and timely access to critical care when needed and that more vulnerable children have greater access to critical care, WHO supported paediatric intensive care units in remote areas of Lebanon.

#### This support included:

- › procuring and delivering key medical equipment to four hospitals;
- › estimating equipment, training and human resource needs;
- › establishing 20 new paediatric intensive care beds at four public hospitals.
- › Retaining qualified specialists in paediatric intensive care in remote areas remains a major challenge.



Delivery of medical supplies



### 1.12.2 .Expanding access to PSA oxygen generator plants



Oxygen is an essential medication required at all levels of the health care system. PSA oxygen generator plants serve as large, central sources of medical-grade oxygen at medical facilities. **Increasing access to oxygen at more health facilities improves the entire health system** by increasing levels of emergency preparedness and making more health facilities self-sufficient.

With Lebanon's hospital sector struggling to maintain service provision of oxygen due to financial limitations and supply issues, WHO recognized the imperative to act quickly and address a clear need to better ensure that in times of crisis, uninterrupted

availability of oxygen continues, especially for the most vulnerable seeking care at public hospitals. This is why WHO in 2023 established seven new PSA oxygen generator plants in seven public hospitals.

#### The project components included:

- › conducting detailed needs, environmental and social impact assessments;
- › procuring and establishing the PSA plants;
- › offering capacity-building training for the use and maintenance of the PSA plants.

In addition, WHO procured spare parts and medical supplies for the maintenance of three additional PSA plants previously established in three other public hospitals.



Oxygen plant in Zahle Public Hospital



Visit of WHO staff to Tripoli Public Hospital

### 1.12.3 Building capacity of emergency rooms in public hospitals

The proposal initially targeted seven public hospitals located in remote peripheral areas, two older people homes and psychiatric institutions, with the objectives of stabilizing emergency cases and referring them to more advanced care as needed. In 2023, WHO conducted detailed needs assessments of these selected hospitals.

The below summarized key recommendations that emerged may serve as the basis for future collaboration:

- › In terms of equipment, basic life support and trauma equipment should be prioritized for all public hospitals, whereas more specialized interventions can be prioritized for public hospitals with high patient loads.
- › In terms of quality improvement, there is a clear need for establishing systems, focusing on continuous education and competency validation, among others.
- › In terms of emergency preparedness and contingency planning, plans need to be continuously reinforced.
- › In terms of human resources, a plan for staffing with proper incentives needs to be established.



#### 1.12.4 Building the capacity of the staff working in critical care units on resuscitation

The identification and management of cardiac arrest is a crucial part of any hospital service. A cardiac arrest can occur in any part of the hospital. It is often unexpected and puts the hospital staff under great stress. A structured resuscitation or life support methodology and strong teamwork increase the chances of a positive outcome.

According to the Lebanese accreditation standards for hospitals, designated staff should have appropriate training certificates in basic and/or advanced life support. According to reported quality

indicators from public hospitals, cardiac arrest is common. Around 25% of COVID-intensive care unit patients experience a cardiac arrest.

*During 2023, WHO trained a total of 2794 staff working in the critical units of 87 hospitals (including 23 public hospitals) on resuscitation techniques.*

The total of staff trained included different kinds of life support:

- › basic life support: 1567 staff
- › advanced cardiovascular life support: 988 staff
- › paediatric advanced life support: 126 staff
- › neonatal advanced life support: 126 staff.

### 1.13 Ensuring evidence-based decision-making for UHC



Policies to ensure health equity and fairness in health care financing and adequate service delivery require evidence related to health financing and spending, as well as available human and material resources. Accordingly, WHO gathered evidence and consolidated information to help guide decision-making for UHC.

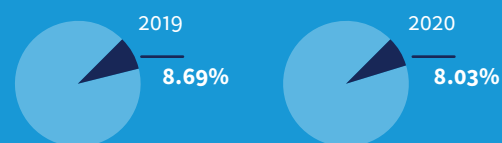
#### 1.13.1 Updating physician and nursing demographics

As human resources are indispensable for adequate and quality service delivery under UHC, and in view of the accelerated migration of human resources for health (so-called brain drain) due to the complex socioeconomic crisis, it was imperative to update the databases on medical demographics. For this, WHO supported the completion of two studies on nursing demographics and on physician demographics in 2023.

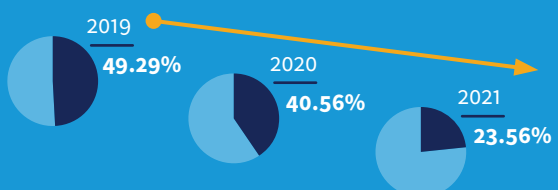
#### 1.13.2 Issuing National Health Accounts (NHA)

Supported by WHO, the issuance of the NHA reports in 2023 for the years 2019, 2020 and 2021 provided comprehensive data on key indicators, including total health expenditure as a percentage of gross domestic product (GDP), general government expenditure on health, and private expenditure on health. These figures, alongside related indicators, such as population dynamics and health outcomes, furnish essential metrics for informed policy-making and resource allocation.

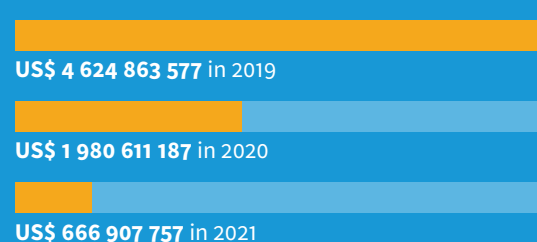
##### Total health expenditure as a percentage of GDP



##### Public expenditure on health as percentage of total health expenditure (includes social insurance)



##### Total expenditure on health, 2019–2021





## Section 2

# Protecting the vulnerable and responding to health emergencies

## 2 Protecting the vulnerable and responding to health emergencies

Keeping Lebanon safe and protecting the vulnerable are top priorities for WHO. To address health emergencies, WHO works closely with the Ministry of Public Health and health sector partners to prepare for, prevent, detect and respond to disease outbreaks. From 2020 to 2023, WHO played a critical role in the response to COVID-19, including the supply of oxygen, procuring vaccines, increased health care staffing and much more.

WHO collaborates as well with partners on other health emergencies, including disasters and conflicts. Subsequently, in 2023, WHO classified Lebanon as a Grade 3 emergency country, the highest emergency grade, due to escalating hostilities in south Lebanon and spillover effects from the war in the Gaza Strip.

### 2.1 Supporting and operationalizing the PHEOC

WHO initiated the revitalizing of the Public Health Emergency Operation Centre (PHEOC) at the Ministry of Public Health in 2022, within the context of the country's first cholera outbreak in 30 years. WHO's

support for the PHEOC expanded in 2023 and accelerated following the advent of the spillover from the war in the Gaza Strip, which resulted in the escalation of hostilities in south Lebanon.

As a result, by end of 2023, WHO Lebanon achieved:

- › a fully equipped PHEOC established at the Ministry of Public Health premises, with ICT infrastructure and connectivity in place for relevant stakeholders through GIS and DHIS2 digital platforms;
- › a fully staffed PHEOC with external recruitment of more than 22 national support staff and five international staff surge capacity;
- › a detailed assessment of the readiness and preparedness of 100 hospitals through onsite visits and virtual support;
- › mass casualty management training for 195 trainees at 40 hospitals;
- › infection prevention and control (IPC) training at 14 public hospitals for 481 staff.



Meeting at Public Health Emergency Operations Centre



## 2.2 Coordinating the health sector

Globally, within the cluster approach, WHO leads the Health Cluster. However, in Lebanon, the cluster system is not activated. Instead, there is a National Health Sector Working Group, led by the Ministry of Public Health and co-led by WHO and the United Nations High Commissioner for Refugees (UNHCR). A dedicated coordinator recruited by WHO ensures continued coordination, consultations and discussions among an array of partners and institutions for timely, predictable, appropriate and effective coordinated health actions.

As health sector co-lead, WHO built and fostered partnerships through coordination and mainstreaming of resources for health. In 2023, WHO sought to maintain the health sector's coordination, while working in harmony with other key sectors, including education, WASH, protection, nutrition and food security, as part of the One Health approach.

### The big merge

Under WHO Lebanon's leadership, the National Health Sector Working Group closely coordinated the Emergency Response Plan, a plan that targeted the host communities, Palestinian refugees in Lebanon and migrant workers, in addition to the Lebanon Crisis Response Plan, targeting displaced Syrian and Palestinian refugees from Syrian Arab Republic in 2023. The combined coordination of both plans sought to improve efficiencies and productivity among partners while reducing redundancies and duplicative efforts. This new coordination model was integrated into the planning for 2024, with one plan in place, the Lebanon Response Plan, and one coordination mechanism targeting all Lebanese and non-Lebanese in an equitable manner.

## 2.3 Surveillance and outbreak management

Effective disease surveillance is essential to detecting disease outbreaks quickly before they spread, cost lives and become difficult to control.

Lebanon recently experienced a change in its epidemiological situation, with a surge in disease outbreaks such as cholera, measles, hepatitis A and many others. The Ministry of Public Health and WHO worked together to prioritize the enhancement and sustainability of surveillance, emphasizing early detection, timely outbreak investigation, laboratory testing linkages, rapid response teams and overall response capacities.

In late 2022, WHO supported the Epidemiological Surveillance Unit in developing and adopting a surveillance strategy focused on integrated disease surveillance, decentralizing capacities for analytical

epidemiology and generation of data for action. The strategy also prioritized improving governance, coordination and overall flow of information.

The WHO regional integrated disease surveillance strategy guided this process, and Ministry of Public Health committed to pursuing an integrated approach. As part of this commitment, the Ministry of Public Health revised the Epidemiological Surveillance Unit's organizational structure to suit Lebanon's current surveillance needs while improving efficiencies and cost-effectiveness.

In 2023, WHO and the Epidemiological Surveillance Unit provided extensive training on outbreak investigation, prevention and control to 88 Ministry of Public Health staff and more than 250 other health care workers.

**Table 2. Key surveillance initiatives**

Initiative	Description	Output
Expanding EWARS	WHO's Early Warning, Alert and Response System (EWARS) expanded to 1368 sites across Lebanon in 2023 – a 30% increase compared to 2022, facilitating early detection of epidemic-prone communicable diseases and enabling a timely response.	Increased coverage and capacity for disease outbreak detection and response across various health centres, including hospitals, laboratories and medical centres.

Strengthening environmental health surveillance system	WHO supported the Ministry of Public Health in identifying necessary equipment and provided material and technical support to establish environmental surveillance for polio, enhancing Lebanon's capacity to monitor and prevent poliovirus transmission.	Improved surveillance infrastructure and capabilities for detecting and preventing poliovirus transmission, contributing to efforts to eradicate polio in Lebanon.
Enhancing influenza surveillance	WHO supported the Ministry of Public Health in strengthening Lebanon's severe acute respiratory infections (SARI) and influenza-like illness (ILI) sentinel system network, enabling timely collection of high-quality surveillance data on influenza and other respiratory pathogens.	Enhanced surveillance of influenza and other respiratory diseases, providing evidence for the introduction of seasonal influenza vaccines and improving pandemic preparedness efforts.



WHO technical mission to enhance surveillance of vaccine-preventable diseases

### 2.3.1 Enhancing influenza surveillance

As part of WHO's regional initiative, the Ministry of Public Health adopted an integrated disease surveillance approach to improve resource efficiency and surveillance outcomes. This meant the implementation of an integrated respiratory disease surveillance with priority given to seasonal influenza, severe acute respiratory syndrome coronavirus 2 (SARS-COV-2) and RSV. The National Influenza Centre maintained adequate capacity to test all specimens

from sentinel sites for seasonal influenza, SARS-COV-2 and RSV using multiple or single test kits.

Between 8 and 11 May 2022, an integrated respiratory disease surveillance and pandemic preparedness technical mission was conducted by WHO. The mission reviewed influenza and COVID-19 surveillance with a focus on Lebanon's readiness, strengths and challenges to integrated respiratory disease surveillance.

#### The main recommendations included:

- › documenting lessons learned from the COVID-19 pandemic focusing on identifying gaps and best practices;
- › utilizing WHO's draft respiratory pandemic preparedness checklist to analyze gaps in the national pandemic preparedness plan;
- › prioritizing capacity development activities and identifying areas requiring enhancement for inclusion in the next revision/update of the national pandemic preparedness plan based on identified gaps;
- › ensuring maintenance of critical equipment at the National Influenza Centre to prevent interruptions to testing;
- › stockpiling necessary supplies and reagents for specimen testing for the upcoming influenza season;
- › developing a testing algorithm for respiratory surveillance in coordination between the National Influenza Centre and Epidemiological Surveillance Unit, following WHO guidelines;
- › conducting a comprehensive review of Lebanon's influenza and respiratory diseases surveillance system focusing on the purpose, quality of the surveillance protocol and establishment of quality assurance measures;
- › reviewing the number of ILI/SARI sentinel sites focusing on their quality rather than quantity;
- › providing periodic training to the sentinel surveillance site staff and National Influenza Centre staff on quality assurance standards;

- › ensuring all protocols and procedures are shared with all staff members;
- › conducting periodic monitoring to the entire surveillance system, including ILI and SARI sites.



Looking ahead, WHO Lebanon reiterates the criticality of sustaining and further strengthening integrated respiratory disease surveillance as part of overall integrated disease surveillance. Epidemiological and virological influenza surveillance systems in Lebanon will yield significant dividends, providing a wealth of new information and evidence.

#### 2.3.2 Introducing seasonal influenza vaccine with PIVI

In April 2023, Lebanon became eligible for the Partnership for Influenza Vaccine Introduction (PIVI) support. This marked a significant milestone in bolstering Lebanon's preparedness against influenza outbreaks.

The collaboration ensures the availability of seasonal influenza vaccines in the public sector before each influenza season for the next five years, with technical support from PIVI and WHO, thereby empowering the Ministry of Public Health to improve vaccine availability, acceptance and mitigate hesitancy effectively. This partnership reflects a long-term commitment to strengthening Lebanon's capacity to monitor influenza and foster preparedness to future pandemics.



Minister of Public Health Dr Firass Abiad (right) signs the MOU with Task Force Global Health marking Lebanon's eligibility for PIVI support



The main results achieved included:

- › distribution of **10000 influenza vaccine doses** from PIVI for the first time in the public sector, through PHC centres and public hospitals, following a national deployment plan supported by WHO;
- › prioritization of high-risk groups such as health care workers, older people and people with co-morbidities resulting in **7907 influenza doses** administered:
  - **885 doses** distributed through the hospital network for health workers
  - **7022 doses** distributed through the PHC network for health workers, older beneficiaries, homes for older people, dialysis patients and children with co-morbidities.

Taking this targeted approach ensured that the most vulnerable populations received protection against influenza, contributing to their overall health and well-being during the flu season. WHO hopes these efforts can be scaled up in the future.



### 2.3.3 Controlling an mpox outbreak



Mpox (formerly monkeypox) is an infectious disease caused by the monkeypox virus. It can cause a painful rash, enlarged lymph nodes and fever. Most people fully recover, but some get very sick. Anyone can get mpox.

The first case of an mpox outbreak in Lebanon was detected on 14 June 2022. By the time the Ministry of Public Health declared the outbreak over in 2023, 27 laboratory-confirmed cases of mpox were reported.

WHO contributed to controlling the mpox outbreak by partnering with the national AIDS control programme and others to develop a multisectoral plan focusing on raising awareness, facilitating referrals for testing and medical care, and building the capacity of the Ministry of Public Health in terms of surveillance and laboratory testing.

WHO support strengthened key response interventions through:

- › early detection capacities and linkages to confirmatory testing at the central Rafik Hariri University Hospital laboratory;
- › proper referral and enhanced case management, and suitable isolation of confirmed cases;
- › provision of technical and financial support to the national reference laboratory at Rafik Hariri University Hospital with essential human resources, laboratory reagents and testing kits for the mpox response;
- › engaging with six local nongovernmental organizations that are integrating HIV and mpox activities among men who have sex with men to strengthen early detection and prevention of mpox transmission at national level, with support from USAID.

## 2.4 Addressing gaps in laboratories

In 2023, WHO helped develop plans for renovating and rehabilitating the national reference laboratory for emerging and re-emerging diseases at a new site leased to the Ministry of Public Health by Rafik Hariri University Hospital. WHO procured all the required equipment for the new national reference laboratory for emerging and re-emerging diseases and developed the initial guidance and roadmap for establishing a national network of reference laboratories. WHO also recruited a senior national

expert to support the operationalization of the Central Public Health Laboratory and national network of reference laboratories.

Expected in 2024, establishing and operationalizing the Central Public Health Laboratory will minimize the impact of emerging and other communicable disease outbreaks and other emergencies on the vulnerable population by enhancing the detection capacity for emerging and communicable diseases.



Visit to a laboratory to assess preparedness for emerging and re-emerging pathogens

## 2.5 Strengthening infection prevention and control

Infection prevention and control (IPC) is a practical, evidence-based approach preventing patients and health workers from being harmed by avoidable infections. After visiting 37 hospitals in Lebanon to assess IPC capacities, WHO estimated that less than 50% of hospitals have a dedicated IPC programme. This has prompted the need to build the capacity of health care workers on IPC. As such, in an effort to strengthen IPC practices at public hospitals, WHO trained 481 staff from 14 different hospitals, with

special focus on the emergency department and intensive care unit staff.

The goal of such training was to enhance IPC programmes and improve practices, quality of care and patient safety. Interactive sessions allowed for open discussion and experience-sharing by participants, especially around addressing concerns of supply and human resources shortages needed to enhance IPC practices effectively.



Infection prevention and control (IPC) training



## Success story: One Health national bridging workshop

The health of humans, animals and the environment are interconnected, with many emerging and endemic human diseases originating from animals. This interconnectedness underscores the importance of collaborative efforts between public health, animal health and environmental sectors to address zoonotic diseases and other threats at the animal-human-environment interface.

WHO supported the One Health national bridging workshop in Lebanon in collaboration with the World Organisation for Animal Health and the Food and Agriculture Organization of the United Nations. Held in September 2023 with 69 participants from key national institutions, the workshop allowed representatives of human health, animal health and environmental health services to review their collaboration gaps in 15 technical areas.

As an outcome to the bridging workshop, WHO helped develop a joint national roadmap of corrective measures and strategic investments to improve the collaborative work at the animal-human-environment interface.

The national roadmap for One Health includes the following areas of work and objectives with specific activities and timelines for partners to deliver on:

- › Coordination, legal and finance
- › Risk assessment and risk communication
- › Surveillance and laboratory
- › Response and field investigation.





## 2.6 Continuation of essential health services

### 2.6.1 Lifesaving and limb-saving hospitalization programme

Since 2020, WHO has been providing support by covering the cost of COVID-19/intensive care based on strict pre-defined vulnerability and medical criteria. In 2023, WHO expanded the coverage to include additional lifesaving and limb-saving conditions based on a set of medical and social eligibility criteria, with a focus on public hospitals

as the main entry point to access hospital coverage. During 2023 alone, WHO covered the cost of 3978 hospitalized patients.

### 2.6.2 Supporting staffing

WHO provided support for retention and recruitment efforts aimed at enhancing resilience in public hospitals (for more information, see section 2.8.2).

## 2.7 Ensuring access to essential medications (acute, chronic and catastrophic)

WHO's support focused mainly on ensuring continuity of access to medications. The socioeconomic crisis, in addition to the protracted Syrian refugee crisis, increased the demand on PHC services, especially on medications.

Despite major impacts to Lebanon's medication supply chain, WHO filled the gap in medications and provided around 750 000 vulnerable beneficiaries (a patient who received medication at least once) with access to high-quality, effective medication for chronic and acute diseases in 2023.

With more than US\$ 14 million worth of medications procured, WHO helped reduce morbidity and mortality in Lebanon by providing more than:

- › **500 000 beneficiaries** with acute essential medication;
- › **240 000 beneficiaries** with chronic medications, including mental health;
- › **10 000 diabetic patients** one million insulin vials and syringes;
- › **1000 cancer medications** for adults and children living with cancer.



Delivery of acute medications



## 2.8 COVID-19: A brief review of WHO Lebanon's response 2020–2023

From the declaration of COVID-19 as a Public Health Emergency of International Concern (PHEIC) on 30 January 2020 to the PHEIC's conclusion on 4 May 2023, Lebanon registered more than 1.2 million COVID-19 cases and nearly 11 000 deaths with just over half of the population (50.4%) having received at least one dose of any COVID-19 vaccine.

WHO engaged in a broad range of activities to support Lebanon's COVID-19 response. Aligned with the WHO's global goal to end the COVID-19 pandemic and build resilience and readiness for the future, WHO adhered to the national preparedness and response plan.

Below are some of WHO Lebanon's key achievements during the pandemic:



**7 409 650** surgical masks  
**418 000** N95 masks  
**300 000** gowns/coveralls

**250 000** gloves (box of 100)  
**72 000** goggles



**512 500** RT-PCR tests  
**200 000** swabs for sample collection  
**40** blood bank freezers and refrigerators  
**21** biological safety cabinets  
**14** automated blood gas analyzers  
**12** PCR machines  
**12** sets of micropipettes  
**11** platelet agitators  
**10** refrigerated centrifuge machine  
**9** blood bag tube sealers  
**9** blood mixers  
**9** plasma extractors

**7** automated blood culture  
**5** plasma thawing baths  
**4** incubators  
**4** microscopes  
**2** double door autoclaves  
**1** -80°C freezer  
**1** hemoglobin testing system  
**1** brand manifold water filtration system  
**1** blood electrolyte analyzer  
**1** coagulation analyzer  
**1** RNA extraction system



**567** syringe, suction and infusion pumps  
**305** oxygen concentrators  
**55** oximeters, tensiometers, and thermometers  
**38** high flow nasal canula  
**19** ventilators

**14** portable capnographs  
**9** portable X Ray machines  
**7** portable bronchoscopes  
**7** video laryngoscopes

### 2.8.1 Support to COVID-19 vaccination centres

The Ministry of Public Health initiated the national COVID-19 vaccination process in February 2021. Towards the end of 2021, WHO started providing operational cost support to 45 hospital-based vaccination centres, covering additional nursing staff and extra hours of work and weekend days to increase their capacity for administering vaccines.

In 2023, WHO supported the administration of 114 800 doses of COVID-19 vaccines, in addition to procuring personal protective equipment (PPE) and providing training to staff on proper health care waste management.

These highlights only begin to touch upon the numerous efforts WHO carried out to support Lebanon's response to COVID-19 from 2020 to 2023.



Vaccination activity supported by WHO

### 2.8.2 Enhancing resilience in public hospitals

Since October 2020, WHO Lebanon has been supporting intensive care and isolation/medical floors staffing in 12 public hospitals with nurses and nurse aids recruited to fill critical gaps and complement hospital staffing. In August 2023, WHO expanded its support to two more hospitals, increasing the total number of WHO-supported ICU beds from 119 to 135. Additionally, WHO supported 246 beds in isolation/medical floors along with triage beds for severe respiratory diseases at the emergency departments of the 14 supported hospitals.

In 2023, WHO provided support for an average of 850 equivalent full time ICU staff (12 shifts of 12 hours per month) and an average of 210 equivalent full time regular floor staff in the 14 supported public hospitals.

In addition, seven out of the 14 supported hospitals received further assistance to ensure having at least one non-specialized physician available 24/7 in their ICU. This was achieved by providing them with the equivalent of five full-time physicians per hospital (i.e., 60 shifts of 12 hours per month). WHO provided this support considering the high patient load in these ICUs, particularly those with severe respiratory diseases requiring constant medical supervision.

During 2023, 13 physicians and 21 nurses received specific training on mechanical ventilation and airway

management to strengthen the case management of patients with severe respiratory diseases.



Intensive care unit supported by WHO

## 2.9 Prevention and response to sexual exploitation, abuse and harassment (PRSEAH)

In accordance with WHO's values and abiding responsibility to do no harm, WHO conducted capacity-building sessions for staff and partners on the prevention and response to sexual exploitation, abuse and harassment (PRSEAH), in addition to undertaking a sexual exploitation and abuse (SEA) risk assessment to identify threats to vulnerable groups.

The main achievements for 2023 included:

> **16 awareness sessions conducted** reaching 33 WHO staff, 117 Ministry of Public Health representatives and 78 implementing partner staff:

- the sessions covered WHO's preventing and addressing sexual misconduct policy, fundamental policy concepts, minimum operating standards, roles and responsibilities of personnel, reporting procedures, and safeguards against retaliation;

- > SEA risk assessment completed using a specialized tool developed by WHO headquarters;
- > mapping of services conducted for victim/survivor through engaging relevant stakeholders to comprehensively map available services for victims/survivors of sexual misconduct to ensure adequate response centred on the victims/survivors;
- > comprehensive "preventing SEA" capacity assessment conducted for all implementing partners using the UN's standardized tool:
  - tailored action plans were subsequently developed to strengthen partners' capacity to respond to sexual exploitation and abuse.
- > ongoing technical guidance and support provided to all partners to ensure sustained progress in this critical area.





Speaker at event on preventing and responding to sexual exploitation, abuse and harassment

## 2.10 Prioritizing gender, rights and equity

In the last quarter of 2023, WHO conducted a series of training sessions with participation from 104 staff from WHO, Ministry of Public Health and other partners. The objective of these sessions was to sensitize staff on gender equality concepts and tools in the context of the emergency humanitarian settings and discuss ways to integrate gender in

humanitarian programming. In addition, a training session on gender mainstreaming and gender-based violence risk mitigation for health sector partners engaged in the emergency response took place during October 2023, in collaboration with the Interagency Gender Working Group and Gender-based Violence Task Force.

## 2.11 Ending first cholera outbreak in 30 years response



Cholera is an acute diarrhoeal disease that can kill within hours if left untreated. Cholera transmission is closely linked to inadequate access to safe water and poor sanitation facilities or can be linked to consuming contaminated food items. It can spread rapidly, depending on the frequency of exposure, the exposed population and the setting. Cholera affects both children and adults, however, it is an easily treatable disease. Most people can be treated successfully by promptly administering oral rehydration solution.

To control cholera outbreaks and reduce deaths, a multisectoral approach, including a combination of surveillance, water, sanitation and hygiene, social mobilization, treatment, and oral cholera vaccines (OCVs), is essential.

The Ministry of Public Health notified WHO on 6 October 2022 of two laboratory culture-confirmed cholera cases. This represented the first cholera outbreak in Lebanon since 1993.

Lebanon's health system, already severely impacted by a three-year financial crisis and the devastating Beirut Port Explosions in August 2020 that destroyed essential medical infrastructure, faced real concerns around how a cholera outbreak could further overwhelm its fragile state.

### 2.11.1 Coordination

The Ministry of Public Health established a multisectoral coordination mechanism with multiple partners, including the Ministry of Energy and Water, WHO, UNICEF and the International Committee of the Red Cross.

Throughout the response, WHO worked with partners at global, regional and national levels to support Lebanon in managing this outbreak.

WHO team members actively participated in all Ministry of Public Health-led weekly cholera task force meetings at the PHEOC, focusing on implementing the response and coordination between the Government of Lebanon and its partners.



Meeting on enhancing cholera/watery diarrhoea preparedness

### 2.11.2 Risk communication and community engagement

WHO co-led the Risk Communication and Community Engagement National Taskforce and produced and disseminated diverse videos and social media content for citizens and foreign nationals of affected communities to help contain the spread of cholera, in partnership with the Ministries of Public Health, of Information, and of Education and Higher Education and other United Nations agencies and partners.

Furthermore, WHO, alongside key partners, developed key messages on maternal, child and adolescent health and sexual and reproductive health in emergencies to be distributed at the community level in the affected areas to raise awareness of the available services and ensure no disruption in the continuity of care. Additionally,

WHO extended support to the Ministry of Public Health and nutrition sector to develop and review guidance notes on infant and young child feeding in the context of cholera.





### 2.11.3 Surveillance and case investigation

Cholera surveillance and reporting from health facilities increased following field visits to cholera affected areas by WHO staff to help strengthen the use of proper case definitions and adequate and timely linkages to case management. One thousand one hundred and sixteen (1116) health workers increased their knowledge of a standardized case definition, cholera testing and detection.

*WHO also deployed more than 21 000 rapid diagnostic tests in affected and neighbouring areas.*

### 2.11.4 Infection prevention and control

*In response to gaps identified through preparedness assessments, WHO supplied nearly US\$ 77 000 worth of IPC and PPE related items to ensure adequate implementation of IPC practices for patients and staff safety.*

WHO strengthened the operational functioning of six laboratories located in governmental hospitals to conduct water quality monitoring to help ensure the provision of safe water to affected communities and prevent a wide range of waterborne diseases, including cholera. These efforts included training around 25 laboratories technicians and directors on water analysis, developing water testing standards, providing laboratories with necessary equipment and supplies for cholera analysis and monitoring the proper functioning of the water laboratories.



Clinical training on cholera



### 2.11.5 Case management (cholera training and hospitalization)

WHO deployed eight infectious disease physicians and 10 senior nurses and IPC officers to the cholera/diarrhoea treatment centres in the areas with confirmed cholera cases.

#### WHO:

- › assessed **20 health facilities** for the possibility of treating cholera patients;
- › increased the capacities of **991 health care staff** in case management and IPC;
- › sent IPC kits to **18 cholera treatment centres**, hospitals, and PHC centres;
- › sent **33 cholera treating kits** (medications and supplies) to **12 cholera treatment centres** supported the storage of a contingency stock of medications and supplies for a forecast of 5000 potential cholera hospitalized patients at Ministry of Public Health warehouses.

### 2.11.6 Oral cholera vaccination

WHO led the joint proposals for procuring cholera vaccines submitted to the International Coordinating Group.

*WHO procured **1 501 800 OCV doses** for use in Lebanon to be administered in 15 priority districts.*

*By the end of 2022, **1 151 800 OCV doses** were **administered** helping to reduce the number of cases, while 350 000 doses of OCV were retained as a contingency stock.*

*On 11 June 2023, the Ministry of Public Health declared the cholera outbreak over with a total of **8007 cases, 23 deaths** and a case-fatality ratio of **0.3% reported**.*

The outbreak affected most governorates, with the highest number of cases noted in the north and Akkar governorate.

While this summary does not reflect all of WHO's efforts in the cholera response, these examples provide a glimpse of the extensive teamwork and multisector coordination that was required to bring the outbreak to an end.



Refresher training on cholera

## 2.12 Responding to hostilities in South Lebanon in 2023

With connections to the larger war in the Gaza Strip, the cross-border exchange of fire in Lebanon's southern border increased significantly from 8 October 2023 onwards. By the end of 2023, ongoing hostilities displaced more than 76 000 people from southern Lebanon. As of 2 January 2024, the Ministry of Public Health reported a total of 123 people killed and 447 wounded.

### 2.12.1 Coordination of the response

As the risk of a more significant conflict and casualties increased in the last quarter of 2023, WHO and health partners worked closely with the PHEOC at the Ministry of Public Health to strengthen preparedness and readiness within the health system to respond to the immediate health needs while preparing for a potential increase in casualties due to escalating violence in southern Lebanon.

### 2.12.2 Coordinating the health sector

Co-led by WHO, the health sector coordination team actively participated in strategic discussions providing technical guidance under a new United Nations Emergency Coordination structure.

The health sector coordination team, in close collaboration with the PHEOC, Civil-Military Coordination Cell, Access Working Group and multisectoral partners, continuously monitored the status of the health facilities in southern Lebanon and worked with local authorities to guide deployments of satellite PHC units linked with fixed site PHC centres to sustain and expand access to essential health services for the most vulnerable population groups, including internally displaced people (IDPs), refugees, migrants, children, women and girls and people living with disabilities.

### 2.12.3 Risk communication and community engagement

WHO worked on compiling all visual materials across all programme areas, especially targeting IDPs in affected areas, and joined efforts led by the United Nations Information Centre to debunk rumours, disinformation and misinformation. WHO also sought to raise awareness around mental health and psychosocial support through a series of messages.



Donor meeting



WHO's former Regional Director Dr Ahmed Al Mandhari meets Minister of Public Health Dr Firass Al-Abiad





Due to the continuous use of white phosphorus weapons during the hostilities, WHO supported several activities to increase awareness of the health impacts of white phosphorus and its clinical management. This included creating and disseminating materials offering the latest WHO guidance on white phosphorous in Arabic and English, targeting frontline workers and affected communities. The team also developed training materials on exposure to white phosphorus along with solid and water waste management of white phosphorus as part of the mass casualty training of trainers.

#### 2.12.4 Strengthening surveillance and case investigation

Among a range of activities related to surveillance and case investigation, WHO helped strengthen early warning surveillance, focusing on diseases potentially emerging during conflict, such as respiratory and diarrhoeal diseases.

#### 2.12.5 Case management: offering vital training

Under the leadership of the PHEOC, the hospital task force assessed 48 private and public hospitals across the country to serve as referral hospitals for mass casualty and trauma care, in addition to supporting 52 hospitals to self-complete the assessment.

The PHEOC hospital task force trained health workers on three modules:

- Module 1:** Clinical approach to trauma care
- Module 2:** Mass casualty management
- Module 3:** Management of psychiatric emergencies and basic psychosocial support skills.

**3092 health workers** in **125 hospitals** received training on the clinical approach for trauma care (around 60% of the participants were nurses, and 15% physicians).

In 2023, **40 hospitals** and **195 trainees** received mass casualty management training, which continues across hospitals in Lebanon.

#### 2.12.6 Procuring and prepositioning critical supplies

Among various procurements to support the response, WHO procured 20 trauma and surgical kits, 10 of which were immediately prepositioned at the designated referral hospitals in the south. WHO distributed 30 basic trauma kits for adults and children to 30 public hospitals to strengthen their emergency room capacity.





### Section 3

## Improving health and well-being

### 3 Improving health and well-being

Serving the vulnerable for better health and well-being is fundamental to WHO’s work in Lebanon. This involves supporting efforts to promote healthy populations across a range of health issues, such as

sexual and reproductive health, maternal, newborn and child health, nutrition, environmental health and more, often intertwined with WHO’s other strategic priorities.

#### 3.1 Extending technical expertise on sexual, reproductive, maternal, child and adolescent health

*WHO took part in the Lebanese delegation mission to South Africa to attend the International Maternal Newborn Health Conference in 2023.*

Following the mission to South Africa, WHO supported the Lebanese delegation in drafting the national maternal and newborn health accelerator plan alongside sister United Nations agencies (United Nations Population Fund, UNICEF), in line with the global *Every Newborn Action Plan* and *Ending Preventable Maternal Mortality* to align global efforts on maternal and newborn health.

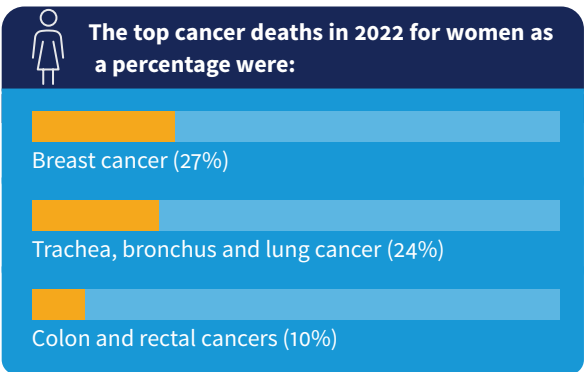
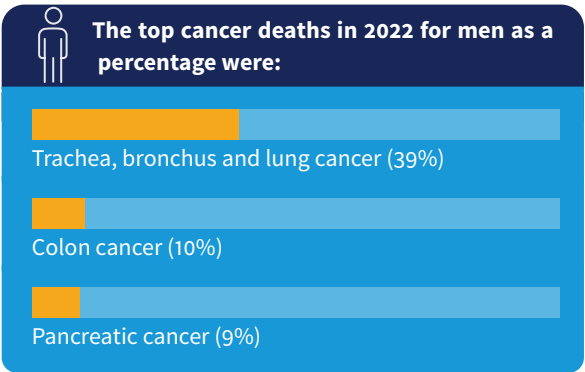
WHO extended its technical expertise to the different partners and the Ministry of Public Health in the review and development of different national plans, guidelines and standard operating procedures related to sexual, reproductive, maternal, newborn, child and adolescent health.

#### 3.2 Combating cancer

*Cancerous tumours (or malignant neoplasms) accounted for 66% of premature deaths due to NCDs in Lebanon in 2022.*

WHO was part of the development and review of the national cancer plan, which encompasses six pillars of action to strengthen care, prevention and screening, surveillance and governance. The plan was launched in July 2023 by the Ministry of Public Health.

Upon the request of the Ministry of Public Health, WHO helped Lebanon enroll in the Global Initiative on Childhood Cancer (GICC), working to improve access to quality care for children with cancer. In addition, WHO supported the National Cancer Registry with two support staff and extended technical support to accelerate collection, analysis and maintenance of the data on cancer to support data-informed decision-making. By the end of 2023, data on cancer incident cases reported to the cancer registry were updated for 2017–2018. Support will continue throughout 2024 to update the data for 2019–2023.





Meeting on supporting access to cancer medications

## Advancing palliative care



**Palliative care** is an approach that improves the quality of life of patients (adults and children) and their families who are facing problems associated with life-threatening illness. It prevents and relieves suffering through the early identification, correct assessment and treatment of pain and other issues.

In an effort to advance palliative care in Lebanon, WHO supported SANAD, a Lebanese nongovernmental organization providing comprehensive, develop a free home-based palliative care to terminally ill patients and their families in Tripoli.

Moreover, SANAD designed the model and built the capacity of Sanabel El Nour, local organization operating in Tripoli, to offer the service at community level. The project was conducted in four phases:

1. Needs assessment in Tripoli
2. Theoretical training and practical observation
3. Development of palliative care service components
4. Piloting of the service with shadowing and mentoring.

The pilot with the shadowing phase of the home-based palliative care service occurred between March and August 2023. One hundred and seven (107) patients have been referred since June 2022, shedding light on a previously unmet need in Tripoli. Feedback from patients and their families was positive. Home-based palliative care made their experience of dealing with end-of-life care more manageable. WHO hopes to replicate the model elsewhere.



### 3.3 Improving nutrition

In 2023, WHO Lebanon sustained its support to nutrition as part of the implementation of the *National Nutrition Strategy and Action Plan 2021–2026* for Lebanon, under the leadership of the Ministry of Public Health. WHO strengthened its collaboration with different United Nations agencies to accelerate action on nutrition through the life course. This included addressing priority nutrition interventions,

such as supporting integrated nutrition services within the health system based on identified gaps and emerging needs within the country.

WHO is a primary partner in the nutrition sector and the national Infant and Young Child Feeding (IYCF) Committee, supporting the scale-up of nutrition strategies, programmes and policies.



Regional nutrition meeting in Beirut

#### 3.3.1 Situational analysis on malnutrition management in hospitals

In partnership with the Ministry of Public Health, WHO worked on a situational analysis addressing the management of severe acute malnutrition in children 0–59 months in hospitals in Lebanon.

*A total of six hospitals identified by the Ministry of Public Health as malnutrition referral hospitals across the different governorates were included in the assessment.*

This analysis comes as a primary step to inform the review and update of the national malnutrition guidelines, jointly with the Ministry of Public Health and UNICEF in 2024, in line with the WHO global update.

#### 3.3.2 Situational analysis on national complementary feeding guidance and practices

WHO supported the national IYCF Committee, headed by the Ministry of Public Health, to conduct a situational analysis on complementary feeding guidance and practices at national level.

The analysis provided the following findings:

- › child feeding practices are affected by family environment, including factors such as feeding styles, socioeconomic status, cultural norms and household food availability, all of which impact the timing of solid food introduction, the selection of recommended food types and the establishment of dietary habits;

- › suboptimal emphasis is given on complementary feeding during counselling at PHC and community levels;
- › divergent information on complementary feeding is offered by health care providers to caregivers, mainly related to gaps in standardization in national guidance.

The main recommendations called for the development of national guidelines for children in the complementary feeding period in 2024, along with implementing strategies to address national policies, knowledge of health care providers and caregivers' awareness.

### 3.3.3 Trans fatty acids legislation

WHO's work on nutrition also meant supporting the development of national policies, such as developing legislation to eliminate trans fatty acids, which began in 2022. In 2023, WHO, in partnership with the Ministry of Economy and Trade, launched the national legislation to eliminate trans fatty acids in foods in Lebanon with a plan for progressive implementation. The launch event featured a technical discussion with key ministries and partners, including the Ministry of Public Health, Ministry of Agriculture, Ministry of Industry, Lebanese Standards Institution (LIBNOR), United Nations agencies, academia, as well as with representatives of national laboratories and food industries.



Technical mission to review the management of national malnutrition

### 3.4 Assessing road safety

Too often, a life is cut short due to a road traffic crash. For the fifth global status report on road safety in Lebanon, WHO supported the completion of a

questionnaire with key stakeholders and developed the road safety country factsheet for Lebanon.

*Based on police records, the factsheet showed the **road traffic death rate per 100 000 population declined from 595 in 2012 to 398 in 2021**. This decrease is attributed to the lockdown period during the COVID-19 epidemic.*



## 3.5 Addressing environmental health

WHO estimates that healthier environments could prevent almost one quarter of the global burden of disease. Clean air, stable climate, adequate water, sanitation and hygiene, safe use of chemicals, effective waste management and more are all prerequisites for good health. For WHO, addressing environmental health in 2023 included providing support on a range of topics with the aim of scaling up future efforts.

### 3.5.1 Tackling climate change



WHO finds that climate change is directly contributing to humanitarian emergencies, which are increasing in scale, frequency and intensity due to extreme weather.

***Some 3.6 billion people already live in areas highly susceptible to climate change, including in Lebanon. Between 2030 and 2050, climate change is expected to cause approximately 250 000 additional deaths per year, from undernutrition, malaria, diarrhoea and heat stress alone.***

Building climate change resilient and sustainable health systems remains a top priority for both WHO and the Ministry of Public Health. In 2023, following COP28, WHO supported the Ministry of Public Health with preparations for a 2024 health and climate workshop and in developing different project proposals for the years ahead.

WHO, in partnership with the International Organization for Migration and the United Nations Office for Disaster Risk Reduction in Lebanon, developed a project proposal that was submitted to and later approved by the Migration Multi-Partner Trust Fund. WHO prepared climate change and health project activities alongside the budget for a joint programme entitled, “Harnessing synergies between climate change adaptation and risk reduction in migrant-inclusive health system responses.” The joint programme is part of a broader project covering multiple countries (Jordan, Iraq and Lebanon) approved by Migration Multi-Partner Trust Fund in 2023. Related work will begin in 2024.

### 3.5.2 Supporting safer water, sanitation and hygiene (WASH)

In 2023, WHO undertook a range of activities to support safe WASH efforts, with a focus on:

- › completing Lebanon’s survey for the UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS);
- › providing technical support for the development of awareness materials for safe WASH in communities of Syrian refugees, working alongside UNICEF and partners;
- › co-leading efforts to improve water and wastewater quality in municipalities, including upgrading the capacity of the six operational water-testing laboratories, with provision of reagents and training of staff on testing procedures;
- › providing technical support and ensuring proper implementation of the WASH water quality survey;
- › strengthening Lebanon’s environmental surveillance system by providing materials and technical support for detecting polio;
- › ensuring that the multiple indicator cluster surveys (MICS) for WASH and water quality parts of the survey followed the same methodology and used the same water-testing materials as the latest WHO/UNICEF household WASH survey from 2016 allowing for comparison and updating of findings based on the same indicators.

#### WHO was involved in:

- › developing the water quality MICS survey methodology;
- › developing the MICS WASH and water quality survey questionnaires;
- › preparing training materials on water quality survey for surveyors;
- › training 50 surveyors on water quality survey methodology and water sampling/analysis.





Water sampling training

### 3.5.3 Focusing on health care waste management

Health care activities protect and restore health and save lives, but they also generate significant waste and by-products. Globally, WHO estimates that about 85% of the total amount of waste generated by health care activities is general, non-hazardous waste and about 15% is considered hazardous material that may be infectious, chemical or radioactive.

As Lebanon's waste management crisis has become protracted since 2016, WHO engaged in several activities to support health care waste management in Lebanon in 2023, including:

- › **training 901 health care personnel** across Lebanon in health care waste management:
  - 261 health care personnel at health care facilities; and
  - 640 at COVID-19 vaccination sites.
- › **assessing 36 COVID-19 vaccination sites and 14 hospitals** on health care waste management.

Ahead of a joint venture called the “Environmentally-sound health care waste management project”, set to launch in 2024 with the United Nations Environment Programme and United Nations Development Programme (UNDP), WHO contributed to developing the project's four potential outputs:

- › a handbook for environmentally sound health care waste management;
- › a demonstrated environmentally sound waste treatment facility for a cluster of hospitals;
- › a training for medical waste management;
- › a strategy for upscaling health care waste management.

### 3.6 Advocating for the tobacco control investment case

In collaboration with UNDP, WHO supported the development of a tobacco control investment case study in Lebanon. With publication expected in 2024, the study highlighted the enormous costs associated

with tobacco in Lebanon and identified policy actions needed to deliver substantial economic and public health benefits to the country.

**Results from the study showed that tobacco use kills nearly 9200 people in Lebanon every year. 43% of these deaths being premature among people under the age of 70. About 15% of lives lost from tobacco use are due to exposure to secondhand smoke.**

Additionally, WHO collaborated with UNDP to develop an SDG brief on tobacco control.

### 3.7 First global status report on drowning prevention

WHO held a meeting on preventing drowning, in collaboration with the Ministry of Public Health, on 8 November 2023 at the WHO Country Office as part of Lebanon's participation in the development of the first WHO Global Status Report on Drowning Prevention. The main stakeholders included participants from the Ministry of Public Health, Internal Security Forces, the Lebanese Civil Defense, the Lebanese Red Cross, Ministry of Transportation, and others. They provided technical support in validating information and data of the related questionnaire, in collaboration with different institutions, and gathered key stakeholders to review the status of drowning in Lebanon, discuss available data and existing drowning prevention

training programmes, strategies and interventions to develop a set of recommendations on drowning prevention. The validation of the data-related questionnaire and the official clearance of the data reported by Lebanon is expected to conclude in 2024. In April 2021, the UN General Assembly adopted the first-ever resolution on drowning prevention, which highlighted links to sustainable development, social equity, urban health, climate change, disaster risk reduction, and child health and well-being. The resolution called on WHO to coordinate multisectoral drowning prevention efforts within the United Nations system and designated 25 July as World Drowning Prevention Day.



Meeting on prevention of drowning



ILIP RNA No.	E-Gene	ORF1ab-Gene	N_Gene	COVID-19	InfA	InfB	H1	H3	BYAM	BVIC	Others	حالات اخرى
22-02067			36.76	Positive	ND	ND						yes
22-02068			35.87	Positive	ND	ND						NO
22-02069			ND	Negative	ND	ND						YES
				Negative	ND	ND						NO
				Positive	ND	ND						yes
				Negative	ND	ND						yes
					ND	ND						NO

## Section 4

# Digitalizing health services for improved health outcomes

## 4 Digitalizing health services for improved health outcomes

The national health strategy recognizes that digital technology is an integral driver to improving health care. As a follow up to the national health strategy, the Ministry of Public Health developed its Vision for Digital Health Transformation, an innovative blueprint developed through collaborative, forward-thinking and inclusive efforts. In line with the

Ministry of Public Health's Vision, WHO constantly seeks solutions to better support Lebanon's health system in more effective and efficient ways. In 2023, some of these efforts included launching and updating an array of systems to improve efficiencies, primarily through digitalization.

### 4.1 Centralizing data through the health data hub

Utilizing data to enhance health care service delivery and public health management is essential. A 2019 WHO assessment identified key areas for improvement in collecting, sharing and analyzing health data in Lebanon. This led to the proposal of a centralized Health Data Hub at the Ministry of Public Health with the aim to encompass clinical, epidemiological, operational, administrative and research data, offering a comprehensive view of the health care landscape in Lebanon.

With WHO's support, the initiative to launch the Health Data Hub began in 2023. The plan is to deliver documentation of data system architecture, a health data system design, interactive dashboards, training materials, data-driven strategy recommendations,

and frameworks for data governance and interoperability by 2024.

When completed, the Health Data Hub will centralize diverse health care data sources, standardize data handling, provide advanced analytical capabilities, support evidence-based policy formulation, and facilitate research initiatives. It aims to enhance collaboration between programmes and ensure timely public health decision-making.

Establishing the Health Data Hub at Ministry of Public Health, with WHO's support, represents a significant step towards enhancing health care services, policy formulation, and public health management across Lebanon through effective data utilization.

### 4.2 GIS mapping for decisive action



**The geographic information system (GIS), called the Atlas Health Facility Tool,** facilitates the mapping of health care facilities in Lebanon and has proven to be indispensable during emergencies, especially in helping to guide decision-making processes. It came online in 2013 as a collaboration between Ministry of Public Health and WHO.

Over time, the need for data validation and system updates became crucial and led to the project's evolution and expansion. The project evolved from covering 26 districts to becoming an online system with a GIS web portal. In 2023, GIS mapping included more than 12 000 health care facilities and health specialists, providing spatial insights into health access and guiding strategic planning.

WHO helped create comprehensive dashboards for hospitals, laboratories, radiology centres, pharmacies, nurseries, primary health centres and specialty physicians.

In 2023, WHO's GIS team performed a comprehensive update and expansion of the Atlas Health Facility Tool. Esri, a GIS software company, played a crucial role in updating the Atlas software in 2023. Phase two enabled health facilities, such as hospitals and laboratories, to update their profiles. Plus, an interface was built for citizens to access their data and search for needed health services. This upgrade and expansion of users ensured that policy-makers and health care providers across Lebanon had access to accurate, up-to-date information on health care facilities, enabling informed decision-making and ultimately promoting resilience and inclusivity in the country's health care system.





GIS health facility software training enabling hospitals to update data on services and specialties as needed

### 4.3 Ensuring safety through pharmacovigilance



**Pharmacovigilance** is the science and activities relating to detecting, assessing, understanding and preventing adverse effects or any other medication/vaccine-related problem.

In Lebanon, the National Lebanese Pharmacovigilance Programme of the Ministry of Public Health is hosted at the Lebanese University with full support from WHO for the past decade.

This tripartite cooperation resulted in the following milestones, showcasing its commitment to drug safety, pharmacovigilance and public health, including digital aspects. Achievements include:

- › **implementing the Lebanese Good Pharmacovigilance Practices guidelines**, which set essential standards and best practices in pharmacovigilance;
- › **processing 25 500 adverse event reports and managing 3747 individual case safety reports**, including reports from hospitals, community pharmacies and consumers;
- › **training more than 250 hospital staff**, including the 81 nominated pharmacovigilance focal points at 81 private and public hospitals on the mechanism and online forms of reporting on medications adverse events to the National Lebanese Pharmacovigilance Programme.



## 4.4 Digitalizing the pharmaceutical sector

Digitalization of the pharmaceutical sector became imperative given the market shortage following Lebanon's compounded financial and socioeconomic crisis, with WHO's primary objective to ensure access to quality medications, especially to the most vulnerable population groups.

Digitalization in the pharmaceutical sector is also critical to improving PHC. WHO provided support in project design and implementation to make it happen, including two crucial digital systems: MediTrack and the Logistic Management System (LMS).

For the technical support to these systems, WHO finalized their rollout to improve the traceability and distribution of medications; this included:

- › **connecting 200 community pharmacies and 70 hospitals to MediTrack** for tracing and distributing subsidized cancer medications;
- › **enrolling 1000 community pharmacies** in MediTrack;
- › **linking LMS at the Central Drug Warehouse to Ministry of Public Health medications programmes**, including for TB, HIV/AIDS and chronic diseases;
- › **ensuring the proper dispensing** of Ministry of Public Health-subsidized cancer and other catastrophic illness medications.

### 4.4.1 Getting more stakeholders on MediTrack



**MediTrack software** is a fully automated system that allows tracking and tracing of all registered or donated medications from the manufacturer to end user, utilizing Lebanon's two-dimensional barcode system for pharmaceuticals applied to their packaging.





In 2023, WHO provided technical support to Ministry of Public Health and national stakeholders to implement MediTrack, including the tracing of all Ministry of Public Health-subsidized medications, such as cancer medications.

WHO supported the **training of more than 1000 community pharmacies and more than 100 public and private hospitals** on how to use MediTrack.

WHO also ensured the **purchase of 5000 two-dimensional barcode readers** for the Ministry of Public Health.

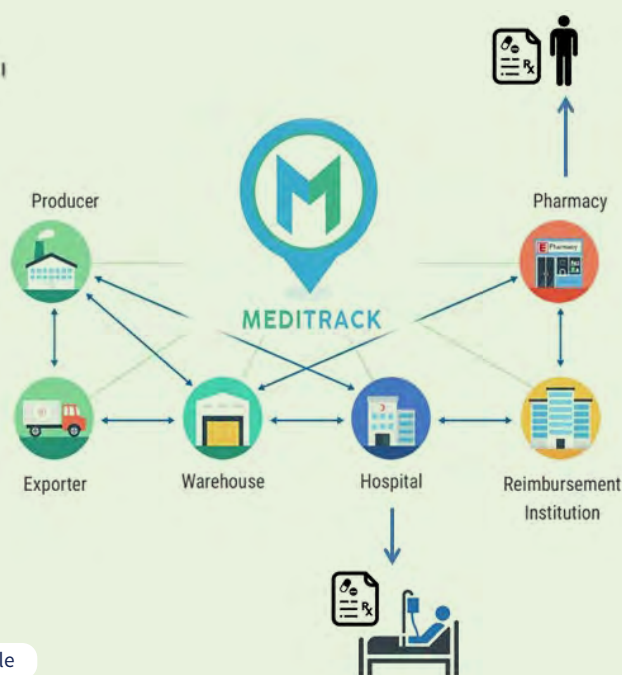
MediTrack played a role in **response to emergencies** by providing up-to-date data on medication stocks across Lebanon.

With WHO's help, Lebanon's 12 largest pharmaceutical manufacturers began using the system in 2023, **enhancing the quality and trust in their products**.

WHO also continued efforts to enroll pharmaceutical importers and community pharmacies in MediTrack.



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Expiry: (17)010115  
Batch/Lot: (10)ABC234



MediTrack information flow and 2D QR code example

#### 4.4.2 Expanding the Logistic Management System (LMS)



**The Logistic Management System (LMS)** is an automated web-linked warehouse management system compatible with barcode reading software capabilities.

LMS helps ensure proper access to medications through the availability of a full warehouse stock management software. This helps control medications from reception to storage to distribution. LMS offers the Ministry of Public Health the ability to control and assess the actual needs of each medical centre it supports through the Central Drug Warehouse.

In 2023, LMS expanded to cover the Ministry of Public Health supplies warehouse and the Tropical Disease Department.

WHO also supported the integration of a separate module within the LMS of the Central Drug Warehouse in response to frequent reported shortages of contraceptives at PHC centres.

Both the LMS and the MediTrack systems are interoperable and exchange real-time data with existing systems such as AMAN (a pre-approval automated system for cancer and catastrophic diseases treatment under the Ministry).

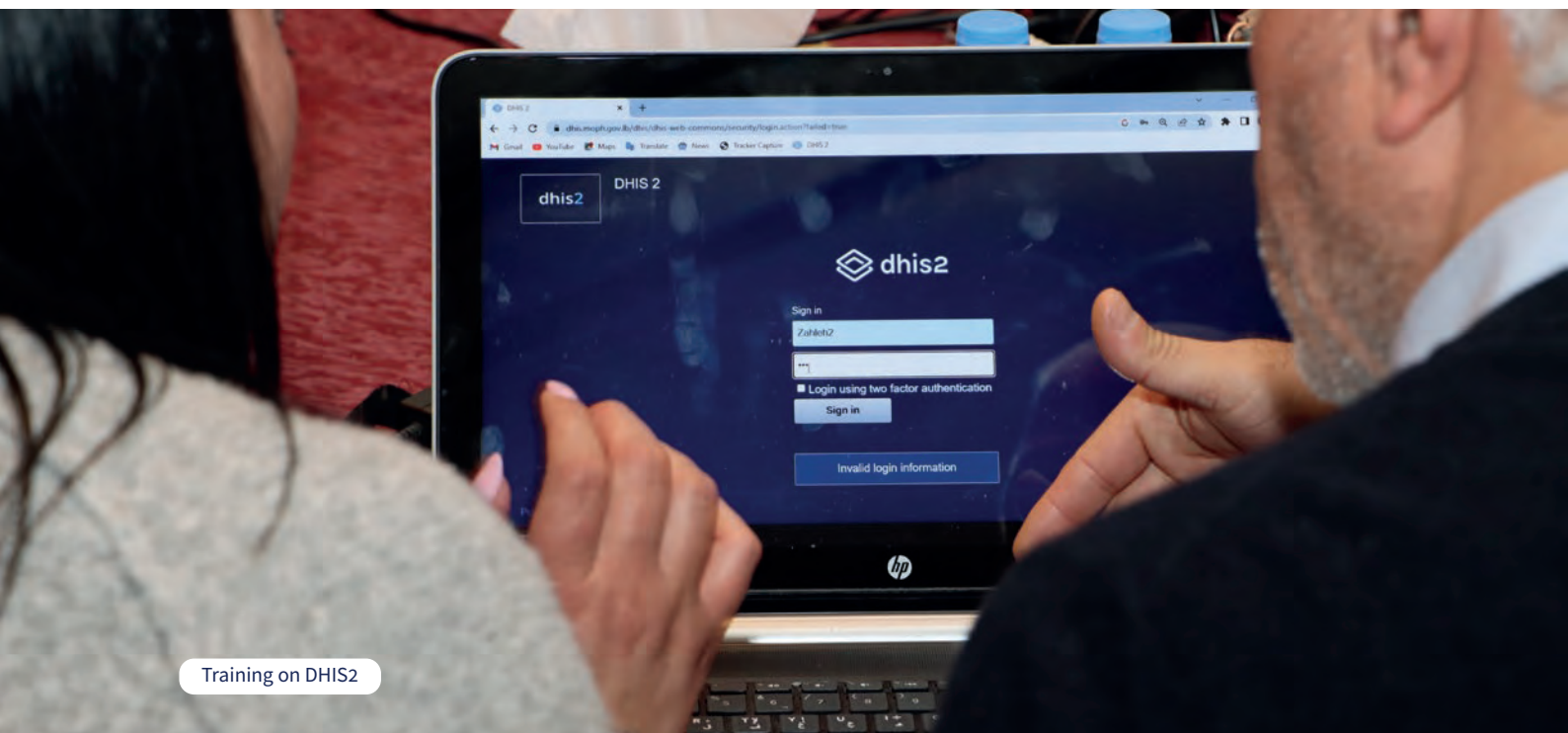


Training on the Logistic Management System

## 4.5 DHIS2 upgraded

Since 2014, WHO has supported the Ministry of Public Health in using the District Health Information Software 2 (DHIS2) platform, which is a parametric open-source platform where Ministry of Public Health collects data on different diseases. In 2023, WHO upgraded the three DHIS2 servers and helped

expand the platform's coverage and use by health programmes focused on TB and HIV/AIDS. At the PHEOC, use of DHIS2 enhanced the monitoring of casualties during the escalation of hostilities in southern Lebanon.



Training on DHIS2





## Section 5

# Raising awareness on critical health issues

## 5 Raising awareness on critical health issues

In 2023, WHO amplified awareness through more than 20 public-facing campaigns on critical health issues, such as World No Tobacco Day and World Diabetes Day, and supported many other efforts to raise awareness around health and well-being. Social media campaigns, events, key messages and other public-facing efforts all played a crucial part in spreading the word about critical health issues in Lebanon and the actions people can take to lead healthier lives.

Below are some examples of WHO's activities for selected health days:

### World Obesity Day, 4 March 2023



To mark World Obesity Day, a national social media campaign was launched by the WHO office in Lebanon with the aim of raising awareness among the public about obesity as a public health issue, the importance of nutrition and actions to better prevent and manage obesity. The campaign extended over one week and included the production and dissemination of social media posts highlighting obesity-related key messages on WHO social media platforms.

**Table 3. WHO Health Days in Lebanon in 2023**

Date	WHO Day
3 March	World Hearing Day
6 March	Obesity Week
8 March	International Women's Day
7 April	World Health Day
24–30 April	World Immunization Week
5 May	World Hand Hygiene Day
31 May	Today is World No Tobacco Day
7 June	World Food Safety Day 2023
15 June	World Blood Donor Day
20 June	World Refugee Day
1 August	World Breastfeeding Week
19 August	World Humanitarian Day
4 September	World Sexual Health Day
10 September	World Suicide Prevention Day
28 Sept	World Rabies Day
10 October	World Mental Health Day
14 November	World Diabetes Day
28 November	International Day for the Elimination of Violence against Women
1 December	World AIDS Day
12 December	Universal Health Coverage Day

### World Health Day 75th anniversary



On 7 April 2023, WHO celebrated its 75th anniversary. To commemorate World Health Day in Lebanon, WHO held a ceremony at the UNESCO Palace in Beirut under the patronage of Prime Minister HE Mr Najib Mikati and in the presence of HE Dr Firass Abiad, Lebanon's Minister of Public Health, along with many other distinguished partners and guests. The event highlighted WHO's landmark contributions in Lebanon over the past seven decades.





Dr Jacques Mokhbat (middle) receives 'Health Champion' award during the celebration of World Health Day 75th anniversary

#### World Mental Health Day, 10 October 2023



On World Mental Health Day, WHO, in collaboration with the national mental health programme, raised awareness on actions that promote and protect mental health as a universal human right through the dissemination of a series of social media posts. The campaign highlighted the importance of mental health and introduced services available to enhance mental health of individuals.

#### World Diabetes Day, 14 November 2023



On World Diabetes Day, WHO marked the day through the dissemination of social media posts around the prevention and management of diabetes. WHO also provided posters to PHC centres in the Ministry of Public Health network including key messages around diabetes and access to medications to raise awareness about access to diabetes care.

## Water and food safety campaign



WHO led a water and food safety campaign targeting communities, restaurants, hotels, health care facilities, supermarkets and other stakeholders. Campaign activities included developing messages and awareness material on food and water safety, disseminating awareness-raising materials to key stakeholders and posting campaign material on social media channels.

## FACEBOOK



**20 April**

Proud to be WHO as it turns 75. WHO celebrated World Health Day to mark a health milestone for all.



**16 August**

Developed basic clinical algorithms of care for the most common adult conditions encountered at PHC settings.



**27 December**

To integrate a people-centred approach into the practice of PHC facilities, a 16-week competency-based learning programme that includes training, coaching, self-paced work, and the establishment of responsive people participation groups.

In the closing event on 12 December 2023, participants from PHC centres had the chance to share their final projects and their opinions and views of the programme. The event also featured input from service users.





## Section 6

# Expanding operational support

## 6 Expanding operational support

### 6.1 WHO Lebanon's key operations

WHO's operations team work expanded in 2023 due to the need to address an increasing number of issues, activating projects, recruiting personnel, procuring supplies and providing direct support.

#### Key operations work in 2023 by numbers:

- › 220 shipments
- › 182 goods purchase orders
- › 101 agreements for performance of work
- › 36 consultants hired
- › 12 long-term agreements and grant agreements
- › 6 technical service agreements
- › 150 general external services
- › 51 impress purchase orders and direct implementations.

**Table 4. Key results from operations in 2023**

<b>Support activities</b>	<ul style="list-style-type: none"> <li>› Managed service contracts, consultancies, focused training sessions, surge capacities, and procurement and distribution of medications and information system products.</li> <li>› Collaborated with the Central Drug Warehouse and Young Men's Christian Association (YMCA) for medication distribution related to direct support from WHO projects.</li> <li>› Contracted with a third-party administrator for support staff and health care provider recruitment.</li> </ul>
<b>Procurement and distribution</b>	<ul style="list-style-type: none"> <li>› Managed procurement, clearance and distribution of COVID-19 PPE, cholera kits, response supplies and security items for the war in the Gaza Strip.</li> <li>› Handled procurement of trauma kits, medication shipments, laboratory supplies, medical equipment, PSA oxygen plant systems, insulin, and essential medications, ensuring immediate distribution to the the Central Drug Warehouse.</li> </ul>
<b>Business continuity plan</b>	<ul style="list-style-type: none"> <li>› Updated business continuity plan in response to the war in the Gaza Strip and escalations in southern Lebanon.</li> <li>› Procured personal trauma kits, security items, PPE and emergency telecommunications devices.</li> <li>› Performed security assessment United Nations Department of Safety and Security recommendations.</li> </ul>
<b>Surge capacities and expertise building</b>	<ul style="list-style-type: none"> <li>› Requested surge capacities for experts in operations, security, logistics, resource mobilization, communication and trauma response to cope with response needs and fill operational gaps.</li> <li>› Procured an armoured vehicle for field missions to conflict zones.</li> </ul>
<b>Human resources expansion</b>	<ul style="list-style-type: none"> <li>› Expanded human resources with 17 new fixed positions (national and international) to align with increased workload and expertise needs, supported by WHO headquarters and Regional Office, in response to Lebanon's classification as a Grade 3 emergency country.</li> </ul>





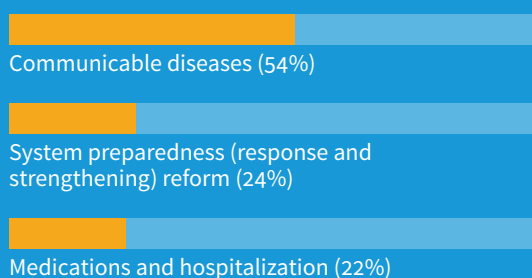
Delivery of equipment to the Central Public Health Laboratory

## 6.2 Budget and funding for WHO Lebanon

In 2023, WHO's operations continued to expand, covering a broad range of both emergency and development activities. More than US\$ 70 million was mobilized in 2023 to support and implement WHO's key priority areas.

Most 2023 funds were allocated and used for procurement of medication, hospitalization and the response to the war in the Gaza Strip. Some available funds were reprogrammed to support the response to the escalating hostilities in southern Lebanon and sustain the cholera outbreak response. Ongoing multiyear funding received in 2023 from key donors propelled the funding level and project implementation.

### 2023 funds were earmarked for:



*In line with WHO's aim of serving one billion more people benefiting from UHC, **WHO received around US\$ 1.5 million in donations** (more than 2% of the total budget).*

The strategic objective of health emergencies response received the highest percentage of support at more than US\$ 63 million (90% of the total budget) to better protect the world's population from health emergencies. In response to the war in the Gaza Strip and the escalation of hostilities in the south of Lebanon, WHO headquarters immediately mobilized around US\$ 1 million through the WHO Contingency Fund for Emergencies to respond to the emergency.

*Moreover, **WHO headquarters provided more than US\$ 7 million to WHO in Lebanon** and for special programmes to support the Ministry of Public Health and the local community.*

## Looking ahead

Overall, the health situation in Lebanon is complex and multifaceted. WHO seeks to build on good practices and learn from its experiences in 2023. In light of the many daunting challenges facing the country, urgent and comprehensive interventions are crucial to restoring and strengthening Lebanon's health system, ensuring the well-being of its people and addressing the broader public health challenges. Now more than ever, it is time to scale up efforts to return Lebanon to its previous status and build a resilient health system. Otherwise, we risk a health system spiraling farther into a downward cycle of unnecessary death and despair.

UHC is firmly based on the 1948 WHO Constitution, which declares health a fundamental human right and commits to ensuring the highest attainable level of health for all. Although it will not be easy, efforts to achieve UHC will serve as the new North Star guiding WHO's work, with a focus on taking practical steps to reach the most vulnerable.

In different ways, the declarations to the end of the cholera and mpox outbreaks, as well as COVID-19 as a global health emergency, served as major opportunities to inform us what had worked and what was lacking in preparedness, surveillance and response efforts.

Since October 2023, the health system has faced perhaps its most severe threat yet with the spillover from the war in the Gaza Strip and escalating hostilities in southern Lebanon. There is no telling how the situation may evolve but coordinated efforts by the Ministry of Public Health, WHO and partners helped to minimize the impacts on the health system as much as possible in 2023. How this situation may unfold remains one of the country's biggest threats to health.

WHO and partners can anticipate but also know the "unknown" is always there, which is why efforts to strengthen capacities are critical to ensuring Lebanon's health system can withstand the unknown, whether it is another conflict spillover, emerging disease or a manmade disaster, such as the Beirut Port Explosions.

At the same time, WHO in Lebanon knows what works and is making every effort to reach vulnerable people and strengthen the health system wherever possible, especially through greater access to PHC and promoting health.

Building on the successes of 2023, WHO will continue to work with the Ministry of Public Health and many partners to increase the urgent interventions needed to restore and strengthen the health system, safeguard citizens' well-being and address broader public health challenges. However, more funding and resources are needed to get Lebanon's health care system back on track.

In 2024–2025, WHO's agreed priorities in need of more funds and resources include scaling up emergency preparedness and response through renovating and operationalizing the Central Public Health Laboratory, maintaining PHEOC operations, enhancing early warning surveillance and response capacities and sustaining strong health sector coordination with a focus on subnational levels.

To continue strengthening the health system and improving governance, WHO will focus on health financing, expanding the people-centred PHC approach, intensive and emergency care, hospitalization and increased access to essential medications, but again greater resources and funds are needed to ensure continued progress. Support WHO in restoring hope in health.

### What an investment in WHO means

With Lebanon's health system at a pivotal point of fracturing further or returning to a position of strength, an investment in WHO is critical to realizing the possibilities of a reinvigorated health system for all people living in Lebanon. We are at an inflection point where sustained investments in health are vital to the future of Lebanon.

WHO has charted a course working closely with the Ministry to restore hope in health across Lebanon. In return, WHO asks for new and existing donors and partners to see the value in WHO's work and the ongoing need to further scale up our efforts in Lebanon in the years ahead.

## The return on investment is priceless

*It is about the improved health and well-being of the people of Lebanon. It is about being a catalyst for getting the country back on track towards achieving UHC, the SDGs, better prospects and a brighter future. It starts with restoring hope in health.*





World Health Organization  
Lebanon

P.O. Box 11-5391  
Beirut, Lebanon



[emwroleb@who.int](mailto:emwroleb@who.int)



[www.emro.who.int/countries/lbn/](http://www.emro.who.int/countries/lbn/)



WHOLebanon