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Lebanon

National Nutrition Strategy and Action Plan

2021-2026



LEBANON

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Foreword

The Ministry of Public Health is launching, for the first time, a National Nutrition Strategy and Action Plan for Lebanon (2021-2026), following a rigorous multi-sectoral consultative process with key national nutrition stakeholders.

This strategy comes at a critical time where the country is facing several crises that have severe impacts on the health and nutrition of people in Lebanon, with a high prevalence of non-communicable diseases on one end and emerging food insecurity on the other. With the current pandemic and challenging economic situation in the country, it is crucial to synergise efforts in order to avoid exacerbation of the nutrition situation.

The strategy is aligned with existing policies, plans, and strategies including the World Health Organization Regional Strategy on Nutrition, the National Non-Communicable Diseases Prevention and Control Plan, the Mental Health and Substance Use Prevention, Promotion, and Treatment Strategy for Lebanon, and the National Infant and Young Child Feeding Policy.

The Ministry of Public Health recognises that adequate nutrition is a pre-requisite for human growth and development and that it plays an important role in building physical and intellectual wellbeing including human productivity. Nutrition is also fundamental for the socio-economic growth and development of Lebanon. The Ministry of Public Health is therefore keen to implement this 5-year nutrition strategy aiming at improving the health and nutrition of people in Lebanon.

The Ministry recognises the multi-sectoral nature of nutrition and is therefore committed to ensure coordination at the national level with relevant ministries and key actors. The Ministry therefore calls upon all ministries, UN agencies, organizations, and academic institutions to join forces in successfully implementing this strategy and action plan.

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³ Persons who participated in one-on-one and group consensus meetings on the strategy.

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Acronyms

| | |
|----------------|---|
| BFHI | Baby-friendly Hospital Initiative |
| EMR | Eastern Mediterranean Region |
| FAO | Food and Agriculture Organization |
| FSLC | Food Safety Lebanese Commission |
| FSS | Food Security Sector |
| GAM | Global Acute Malnutrition |
| GSHS | Global School-based Student Health Survey |
| IYCF | Infant and Young Child Feeding |
| IYCF-E | Infant and Young Child Feeding in Emergencies |
| LIBNOR | Lebanese Standards Institution |
| m-VAM | Mobile Vulnerability Analysis and Mapping |
| MICS | Multiple Indicator Cluster Survey |
| MoA | Ministry of Agriculture |
| MoE | Ministry of Economy and Trade |
| MoPH | Ministry of Public Health |
| MoSA | Ministry of Social Affairs |
| NCD-PCP | Non-Communicable Diseases Prevention and Control Plan |
| NCDs | Non-Communicable Diseases |
| NPTP | National Poverty Targeting Program |
| PHC | Primary Health Care |
| SAM | Severe Acute Malnutrition |
| SD | Standard Deviation |
| SDGs | Sustainable Development Goals |
| TFA | Trans Fatty Acids |
| WFP | World Food Programme |
| WHO | World Health Organization |

Executive summary

Nutrition is a key determinant of health and ensuring optimal nutrition within a population is one of the main pillars for growth and development. Available information on nutritional status in Lebanon shows there is a double burden of malnutrition with prevalence of overnutrition illustrated by the high rates of non-communicable diseases, coupled with indications for undernutrition illustrated by micronutrient deficiencies amongst children and women of child-bearing age and stunting amongst children under 5. Available information also shows malnutrition amongst older persons. With the worsening economic conditions, there is deterioration in food security and therefore a higher risk for aggravation in the nutrition situation. An area of concern is access to food and self-sufficiency, affecting nutrition and food security. It is therefore vital to prioritize nutrition in the country.

Current nutrition interventions rely on several public (ministries), private institutions and sectors, and non-governmental organizations; however, they are not part of a national strategy and are not coordinated at the national level. Although some nutrition indicators are part of the Ministry of Public Health (MoPH) surveillance, reporting on the nutrition situation is mostly reliant on ad-hoc surveys and individual studies. More than ever, there is a need to ensure governance of nutrition interventions, prioritize those that address nutrition needs, and coordinate efforts at the national level.

The current strategy prioritizes optimal nutritional outcomes across the lifecycle amongst all persons residing in Lebanon to contribute to improving overall health and wellbeing.

The outcome objectives of the strategy are to:

- a. Improve maternal, infant, and young child nutrition including prevalence of micronutrient deficiencies and stunting.
- b. Reduce morbidity and mortality from non-communicable diseases by improving dietary and feeding habits.
- c. Improve food security and food safety at the national, community and household levels.

The strategy was developed following a thorough consultative process. It builds on an inter-sectoral framework, advocates for the Mediterranean diet as a cross cutting theme and prioritizes investment in nutrition and emergency preparedness.

The strategy focuses on five strategic areas that respond to the strategy objectives and for each of the strategy areas, priority actions have been developed based on the situation analysis and the context.

- » Strategy Area 1: Strengthened multi-sectoral nutrition governance, accountability, and information management
- » Strategy Area 2: Aligned health systems providing universal coverage of essential nutrition services (HEALTH SYSTEMS)
- » Strategy Area 3: Sustainable, resilient food systems for healthy diets (SUPPLY)
- » Strategy Area 4: Safe and supportive environment for nutrition at all ages (ENVIRONMENT)
- » Strategy Area 5: Social protection for nutrition to ensure economic availability of safe food (SOCIAL PROTECTION)

The strategy spans over 5 years and is accompanied by an action plan with indicators that would be reviewed on a yearly basis.

1

Introduction

Introduction

Poor nutrition across the lifespan has health and other consequences on a population. In Lebanon, as in other countries in the Middle East, the nutrition transition and the prevalence of both undernutrition (such as micronutrient deficiencies) and overnutrition (obesity and overweight) known as the double burden of malnutrition, appear to worsen amidst a volatile economic and political situation.⁴ Lebanon has been facing a severe economic crisis since 2019 with riots and demonstrations starting in October 2019 and deterioration of living conditions. The situation was further worsened by the COVID-19 pandemic which added a strain on the health care system and other services.⁵ Added to that, on 4 August 2020, a series of massive explosions hit the port of Beirut, claiming more than 200 lives, injuring more than 6,000 and affecting more than 300,000 residents as well as causing massive destruction to the city's infrastructure.

Aside from individual initiatives and distinct policies, there are no national strategies in Lebanon to address the multi-sectoral causes of poor nutrition, guide nutrition, address nutrition gaps, and inform the Sustainable Development Goals (SDGs). Nutrition is multi-sectoral in nature and in Lebanon, there are multiple nutrition actors involved at the national level including the health, agriculture, economy and trade, and education sectors. Initiatives are mostly on ad-hoc basis with sub-optimal coordination.

The current nutrition strategy for Lebanon provides a roadmap for improving nutrition and responding to the most urgent needs and gaps in nutrition and health services. The strategy was developed following a consultative approach. The methodology included 1) document and literature review, 2) mapping of stakeholders, existing policies, guidance and strategies, 3) one-on-one formal and informal interviews with key stakeholders, 4) face to face as well as online consultative meetings, and 5) written consultative feedback for review and prioritization of strategy areas and actions.

Note: Terms underlined in the strategy are defined in the Glossary of terms section at the end of the document.

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⁴ Ghattas, H., Acharya, Y., Jamaluddine, Z., Assi, M., El Asmar, K., & Jones, A. D. (2020). Child-level double burden of malnutrition in the MENA and LAC regions: Prevalence and social determinants.

⁵ World Health Organization (2020, August 31). In WHO global pulse survey, 90% of countries report disruptions to essential health services since COVID-19 pandemic. World Health Organization. <https://www.who.int/news/item/31-08-2020-in-who-global-pulse-survey-90-of-countries-report-disruptions-to-essential-health-services-since-covid-19-pandemic>.

2

Situation analysis

Situation analysis

HEALTH AND NUTRITION OUTCOMES

Health and nutrition outcomes of children under 5 years of age

The latest survey reporting on the nutritional status of children under 5 years of age was conducted in 2004 showing prevalence of both stunting and overweight amongst children (Table 1).

Table 1 - Health and nutrition outcome indicators for children under five.⁶

| Indicator | Value |
|--|------------------------|
| Stunting (height for age z-score less than 2 Standard Deviation (SD)) | 16.5% |
| Wasting (weight for height z-score less than 2 SD) | 6.6% |
| Underweight (weight for age z-score less than 2 SD) | Not Available (N/A) |
| Obesity and overweight (weight for height z-score more than 2SD and 1SD respectively) | 16.7% |

Amongst Syrian refugee children under 5 years of age, the Global Acute Malnutrition (GAM) rate and Severe Acute Malnutrition (SAM) rate were reported to be 2.3% and 0.8% respectively in 2016. Data showed that the rate of stunting was 14.8% and 4.3% for underweight.⁷

The recent 2021 SMART survey reported that stunting was prevalent at 7% and 25% among nationals and Syrian refugee children under 5 years of age of respectively. At the same time, the survey found a national Global Acute Malnutrition prevalence of 1.8% and Severe Acute Malnutrition of 0.3%.⁸

Indicators reported on regularly by MoPH are:

- » low birth weight (9.0% in 2019),
- » under-5 mortality rate (9.6 per 1000 live births in 2018),
- » infant mortality rate (7.4 per 1000 live births in 2018).

Table 2 shows an upward trend in low-birth weight and mortality rates.

6 Tutelian, M., Khayyat, M., Abdel Monem, A., Pan-Arab Project for Family Health, Ministry of Social Affairs, & League of Arab states, Lebanon. (2006). Lebanon family health survey 2004: Principal report. Pan Arab Project for Family Health.

7 UNHCR, UNICEF, & WFP. (2016). Vulnerability Assessment of Syrian Refugees in Lebanon. <https://reliefweb.int/sites/reliefweb.int/files/resources/VASyR2016.pdf>

8 Lebanon Nutrition Sector. (2021). Lebanon: National nutrition smart survey report, Aug-Sep 2021. <https://reliefweb.int/sites/reliefweb.int/files/resources/National%20Nutrition%20SMART%20Survey%20Report%20.pdf>

Table 2 - Low birth weight, Infant mortality, and under-5 mortality (MoPH).⁹

| Indicator | 2017 | 2018 | 2019 |
|---|------|------|------|
| Low birth weight (%) | 9.5 | 8.8 | 9.0 |
| Under-5 mortality rate (per 1000 live births) | 9.0 | 9.6 | N/A |
| Infant mortality rate (per 1000 live births) | 6.7 | 7.4 | N/A |

The 2021 SMART survey found that almost 43% of children 6- 59 months were suffering from a degree of anaemia. A similar result was reported among Syrian refugee children at 32.8%.¹⁰ In addition, an individual study estimated anaemia prevalence (haemoglobin [Hb] <11 g/dL) amongst Lebanese children under 5 to be 28.3%.¹¹

To note that following the recent developments and the deterioration in the socio-economic situation in Lebanon, this data may no longer be representative of the current situation.

Health and nutrition outcomes of children and adolescents

Amongst the age group of 5-19 years, nutrition outcomes have been reported including the prevalence of underweight (19.1% in boys and 17.9% in girls), overweight (36.6% in boys and 30.4% in girls) and obesity (16.9% in boys and 1.9% in girls) showing an upward trend in overnutrition indicators similar to other countries in the region.¹² These results are similar to those from the latest (2017) Global School-based Student Health Survey¹³ (GSHS) which reported that 24.6% (30.2% boys and 19.7% girls) of students 13-17 years of age were overweight¹⁴ and 5.9% (7.6% boys and 4.4% girls) were obese. Rates were also similar for the 2011 GSHS.

In terms of micronutrient deficiencies, individual studies have shown deficiencies in iodine and vitamin D amongst school-aged children, where 75% of children from 26 schools in Lebanon were found to be iodine deficient¹⁵ and 52% of children in schools based in Beirut were found to have vitamin D deficiency. There are no reports on iron deficiency.

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⁹ Republic of Lebanon Ministry of Public Health. (2019). Statistics 2019. <https://www.moph.gov.lb/en/DynamicPages/index/8#/en/Pages/8/327/statistical-bulletins>

¹⁰ Lebanon Nutrition Sector. (2021). Lebanon: National nutrition smart survey report, Aug-Sep 2021. <https://reliefweb.int/sites/reliefweb.int/files/resources/National%20Nutrition%20SMART%20Survey%20Report%20.pdf>

¹¹ Nasreddine, L. M., Kassis, A. N., Ayoub, J. J., Naja, F. A., & Hwalla, N. C. (2018). Nutritional status and dietary intakes of children amid the nutrition transition: the case of the Eastern Mediterranean Region. *Nutrition research*, 57, 12-27.

¹² Micha, R., Mannar, V., Afshin, A., Allemandi, L., Baker, P., Battersby, J., ... & Dolan, C. (2020). 2020 Global nutrition report: action on equity to end malnutrition.

¹³ World Health Organization. (2017). Global School-based Student Health Survey (GSHS).

¹⁴ Unless otherwise specified, overweight includes obesity.

¹⁵ Ghattas, H., Francis, S., El Mallah, C., Shatila, D., Merhi, K., Hlais, S., ... & Obeid, O. (2017). Lebanese children are iodine deficient and urinary sodium and fluoride excretion are weak positive predictors of urinary iodine. *European journal of nutrition*, 56(2), 749-755.

Health and nutrition outcomes of adults

Amongst adults, rates of overweight and obesity have been increasing over the past decade with almost 38% of adults reported to be overweight and 27% obese as per the WHO STEPwise Approach for Non-Communicable Diseases Risk Factor Surveillance – Lebanon.¹⁶ In addition, non-communicable diseases (NCDs) account for 91% of mortality amongst adults with cardiovascular diseases being the main cause of death (47%).¹⁷

At the same time, micronutrient deficiencies have been reported amongst women of reproductive age (31%).¹⁸ Similarly, an individual study showed that almost 30% of women residing in rural areas had anaemia.¹⁹ Deficiencies in vitamin D have also been reported to be as high as 60% amongst adults of reproductive age.²⁰

As for nutrition outcomes amongst older adults, individual studies showed that almost 30% of elderly in rural areas and 27% in nursing homes were at risk of malnutrition.^{21,22,23,24,25,26}

Despite lack of data on hospital malnutrition rates among adults in Lebanon, nutrition support for hospitalized patients has been reported as suboptimal leading to a risk of hospital malnutrition, especially for long-term hospitalization.²⁷

Conclusion on health and nutrition outcomes:

Despite the gap in data related to nutritional status in Lebanon, there is evidence pointing towards a double burden of malnutrition, with prevalence of over and under-nutrition including stunting, wasting, micronutrient deficiencies, overweight and obesity amongst different age groups.

16 Republic of Lebanon Ministry of Public Health & World Health Organization. (2017) WHO STEPwise Approach for Non-Communicable Diseases Risk Factor Surveillance. https://www.who.int/ncds/surveillance/steps/Lebanon_STEPS_report_2016-2017.pdf?ua=1

17 World Health Organization. (2018). Noncommunicable diseases country profiles 2018 (Lebanon). https://www.who.int/nmh/countries/lbn_en.pdf.

18 World Health Organization. (2013). Global health observatory data repository.

19 Asmar, M. K., Zabliti, C. G., Daou, R., Yéretzian, J. S., Daoud, H., Rady, A., ... & Ammar, W. (2018). Prevalence of anemia and associated factors in women of childbearing age in rural Lebanon. *Journal of Public Health*, 26(1), 39-49.

20 Hoteit, M., Al-Shaar, L., Yazbeck, C., Sleiman, M. B., Ghalayini, T., & Fuleihan, G. E. H. (2014). Hypovitaminosis D in a sunny country: time trends, predictors, and implications for practice guidelines. *Metabolism*, 63(7), 968-978.

21 Boulos, C., Salameh, P., & Barberger-Gateau, P. (2014). Factors associated with poor nutritional status among community dwelling Lebanese elderly subjects living in rural areas: results of the AMEL study. *The journal of nutrition, health & aging*, 18(5), 487-494.

22 Boulos, C., Salameh, P., & Barberger-Gateau, P. (2013). The AMEL study, a cross sectional population-based survey on aging and malnutrition in 1200 elderly Lebanese living in rural settings: protocol and sample characteristics. *BMC Public Health*, 13(1), 573.

23 Boulos, C., Salameh, P., & Barberger-Gateau, P. (2017). Social isolation and risk for malnutrition among older people. *Geriatrics & gerontology international*, 17(2), 286-294.

24 Boulos, C., Yaghi, N., & Salameh, P. (2017). Impact of Education and Other Potential Covariates on Nutritional Status in Lebanese Rural Elderly Women. *Department of Pharmacy, Lebanese University, Lebanon*.

25 Boulos, C., Adib, S. M., Mitri, R., & Salameh, P. (2017). Nutritional Status of the Elderly in an Arab Country in Social Transition: the Case of Lebanon.

26 Doumit, J. H., Nasser, R. N., & Hanna, D. R. (2014). Nutritional and health status among nursing home residents in Lebanon: comparison across gender in a national cross sectional study. *BMC Public Health*, 14(1), 629.

27 Abi Saleh, W., Khalil, P. B., Ouaijan, K., Abillama, F., Akiki, S., Ahmad, N., & Mattar, L. (2018). Evaluation of nutrition support practices: Results from a nationwide survey. *Clinical Nutrition*, 37(6), 1976-1979.

DIETARY HABITS AND FEEDING INDICATORS

The immediate and underlying factors contributing to nutritional status in Lebanon include poor dietary habits amongst different population groups. These are presented below.

Dietary habits and feeding indicators of children under 5 years of age

Amongst infants and young children (0-23 months) and according to the Multiple Indicator Cluster Survey²⁸ (MICS) conducted in 2009, feeding habits are characterized by poor breastfeeding with 41.3% prevalence of early initiation of breastfeeding and 14.8% of exclusive breastfeeding at 6 months. A recent household survey²⁹ showed that exclusive breastfeeding rates may have increased (25%). According to the 2021 SMART survey findings, exclusive breastfeeding rates were at 32.4% nationally, with the highest proportion among Syrian refugee children at 65.2%. However, over 70% of the children were found missing on initiation of exclusive breastfeeding.³⁰ In relation to children's diets, MICS 2009 reports that 20.9% of infants 0-11 months were appropriately fed and 41.8% of infants 6-8 months of age were introduced to complementary food, whereas the recent household survey reports poor complementary feeding practices with only 13% of children 0-23 months meeting the Minimum Acceptable Diet and 25.5% reaching Minimum Dietary Diversity. A new MICS is planned to be conducted in 2021/2022 and results can then be compared. Meanwhile, complementary feeding habits amongst Syrian refugees in Lebanon have been reported to also be poor with only 2% of children 6-23 months of age having the Minimum Acceptable Diet.³¹

Comparable results were reported in the SMART survey, with almost 6% of children 6-23 months fed on Minimum Acceptable Diet, both nationally and among Syrian refugees. It was found that 90% of children are missing a dimension of quality and nutritious diet and more than 70% are missing on protein and vitamin A sources of food.³²

Amongst children 2 to 5 years of age, a nationally representative sample of 525 Lebanese children surveyed between 2011 and 2012 showed two feeding patterns. These include the "fast food and sweets" characterized by a high consumption of sweets and animal-source foods (sharing characteristics of the Western diet), and the "traditional pattern" characterized by a higher intake of breads and cereals, dairy products, fruits and vegetables and traditional Lebanese mixed dishes.³³

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²⁸ UNICEF. (2009). Multiple indicator cluster surveys. <https://mics.unicef.org/>

²⁹ UNICEF. (2017). UNICEF annual report 2016. United Nations Children's Fund (UNICEF). https://www.unicef.org/media/49311/file/UNICEF_Annual_Report_2016.pdf

³⁰ Lebanon Nutrition Sector. (2021). Lebanon: National nutrition smart survey report, Aug-Sep 2021. <https://reliefweb.int/sites/reliefweb.int/files/resources/National%20Nutrition%20SMART%20Survey%20Report%20.pdf>

³¹ UNHCR, UNICEF, & WFP. (2019). Vulnerability Assessment of Syrian Refugees in Lebanon. <https://reliefweb.int/sites/reliefweb.int/files/resources/73118.pdf>

³² *ibid.*

³³ Nasreddine, L., Hwalla, N., Saliba, A., Akl, C., & Naja, F. (2017). Prevalence and correlates of preschool overweight and obesity amidst the nutrition transition: findings from a national cross-sectional study in Lebanon. *Nutrients*, 9(3), 266.

Dietary habits and feeding indicators of children and adolescents

Poor dietary patterns are reported amongst school-aged children including the high consumption of sugary food and beverages and low consumption of fruits and vegetables. According to the latest GSHS (2017), around 60% of children aged 13-15 years reported drinking carbonated beverages one or more times per day. Similarly, an individual study reported that fast foods, sweets, and carbonated beverages make up around 22% of the energy intake of children aged 6-12 years of age.³⁴ At the same time, there are indications to show gaps in micronutrient intakes amongst school-aged children; a study showed that in a sample of 493 children 5-12 years, 72.8%, 34.6%, and 95% consumed less than two-thirds of the recommendation for calcium, iron and vitamin D respectively.³⁵ In addition to eating habits, other behaviours such as lack of physical activity amongst the young population have been highlighted.

Amongst adolescents and young adults, eating disorders and distorted eating habits have been described with reports showing potential high prevalence.^{36,37}

Dietary habits and feeding indicators of adults

In terms of food consumption patterns amongst the adult population, there is evidence to show that the population is going through a nutrition transition and an increase in consumption of salt (5.6g/day/person),³⁸ total fat, and specifically trans fat (at least double the WHO recommendations of 1% of total energy, particularly among younger adults).³⁹ There is an increasing trend in energy intake and the proportion of energy derived from fat and animal products.⁴⁰ It has also been reported that fruit consumption is low with only an average of 1.8 servings of fruits or vegetables consumed per day⁴¹ whereas consumption of sugar-sweetened beverages is high.⁴² A recent food composition analysis of most commonly consumed dishes showed that almost 75% of the dishes analysed contained amounts of trans fat between 0.1 and 2%.⁴³ Finally, the recent mobile Vulnerability Analysis and Mapping (m-VAM) conducted by the World Food Programme (WFP) and the World Bank showed that 19% of households consumed inadequate diets.⁴⁴

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³⁴ Nasreddine, L., Naja, F., Akl, C., Chamieh, M. C., Karam, S., Sibai, A. M., & Hwalla, N. (2014). Dietary, lifestyle and socio-economic correlates of overweight, obesity and central adiposity in Lebanese children and adolescents. *Nutrients*, 6(3), 1038-1062.

³⁵ Nasreddine, L., Naja, F., Akl, C., Adra, N., Sibai, A., & Hwalla, N. (2012). Prevalence and determinants of overweight and obesity in a national sample of 5–12 years old Lebanese children.

³⁶ Haddad, C., Obeid, S., Akel, M., Honein, K., Akiki, M., Azar, J., & Hallit, S. (2019). Correlates of orthorexia nervosa among a representative sample of the Lebanese population. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity*, 24(3), 481-493.

³⁷ Zeeni, N., Safieddine, H., & Doumit, R. (2017). Eating disorders in Lebanon: directions for public health action. *Community mental health journal*, 53(1), 117-125.

³⁸ IFPRI. (2016). *Global nutrition report 2016: From promise to impact: Ending malnutrition by 2030*.

³⁹ Farhat, A. G., Jaalouk, D., Moukarzel, S. R., & Ayoub, J. J. (2016). Consumption of trans fatty acid and omega 6 to omega 3 ratio in Lebanese adults. *Nutrition & Food Science*.

⁴⁰ Nasreddine, L., Naja, F., Sibai, A. M., Helou, K., Adra, N., & Hwalla, N. (2014). Trends in nutritional intakes and nutrition-related cardiovascular disease risk factors in Lebanon: the need for immediate action. *Lebanese Medical Journal*, 103(1151), 1-9.

⁴¹ Republic of Lebanon Ministry of Public Health & World Health Organization. (2017) WHO STEPwise Approach for Non-Communicable Diseases Risk Factor Surveillance. https://www.who.int/ncds/surveillance/steps/Lebanon_STEPS_report_2016-2017.pdf?ua=1

⁴² IFPRI. (2016). *Global nutrition report 2016: From promise to impact: Ending malnutrition by 2030*.

⁴³ Lebanese University. (2021). Food Composition Data: Traditional Dishes, Arabic Sweets and Market Foods. <https://ul.edu.lb/files/ann/20210422-LU-RePa-Report.pdf>

⁴⁴ World Food Programme & World Bank (2020). Lebanon m-VAM Vulnerability and Food Security Assessment. <https://docs.wfp.org/api/documents/WFP-0000119575/download/>

Amongst specific groups such as athletes, there has been reports of high intake of dietary supplements leading to exceeding consumption of protein and not meeting requirements for other macronutrients.⁴⁵

Conclusion on dietary and feeding habits:

There is evidence pointing to poor feeding habits amongst infants and young children, school-aged children, and adults. There is a nutrition transition with low consumption of fruits and vegetables and high consumption of salt, sugar and fat amongst adults and children.

FOOD SAFETY

Foodborne illnesses contribute to poor eating habits and can jeopardise the health, especially of vulnerable groups. The subject of food safety has been visible in the past few years with efforts to improve the safety of food from “farm-to-fork”; however, food poisoning remains an issue of concern. In 2018, 459 cases of food poisoning were reported by MoPH, a figure similar to previous years.⁴⁶ Individual studies have reported the presence of antimicrobial resistant strains of pathogens in different kinds of foods and at different stages.⁴⁷ Recently, Penicillin residues were reported in a number of food items including chicken and dairy⁴⁸ as well as acrylamide in high levels in Lebanese coffee. In terms of food safety practices and microbiological quality of street food being sold in Lebanon, reports show microbiological contamination and presence of undesirable levels of foodborne pathogens attributed to inappropriate environmental conditions and improper storage and hygiene practices.⁴⁹ Other studies revealed a high occurrence of carcinogenic mycotoxins in herbs and spices⁵⁰ and presence of high levels of Aluminium, Chromium, and Barium in infant formula marketed in Lebanon.⁵¹

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⁴⁵ Salami, A., Ghaddar, A., Aboumradi, E., & Joumaa, W. H. (2016). Dietary supplement use in sport gyms in Lebanon: are they necessary and are there side-effects. *International Journal of High Risk Behaviors and Addiction*, 6(1).

⁴⁶ Republic of Lebanon Ministry of Public Health. (2020). Communicable Diseases Surveillance. <https://www.moph.gov.lb/en/Pages/2/194/-general-surveillance-data>

⁴⁷ Zeina, K., & Fawwak, S. (2013). Quantification of antibiotic residues and determination of antimicrobial resistance profiles of microorganisms isolated from bovine milk in Lebanon. *Food and Nutrition Sciences*, 4(07), 1.

Haidar-Ahmad, N., Kissoyan, K. A. B., Fadlallah, S. M., El-Hajj, R., Saleh, M., Ghosn, N., & Matar, G. M. (2016). Genotypic and virulence characteristics of *Listeria monocytogenes* recovered from food items in Lebanon. *The Journal of Infection in Developing Countries*, 10(07), 712-717.

Faour-Klingbeil, D., Kuri, V., Fadlallah, S., & Matar, G. M. (2016). Prevalence of antimicrobial-resistant *Escherichia coli* from raw vegetables in Lebanon. *The Journal of Infection in Developing Countries*, 10(04), 354-362.

Fadlallah, S. M., Shehab, M., Cheaito, K., Saleh, M., Ghosn, N., Ammar, W., ... & Matar, G. M. (2017). Molecular epidemiology and antimicrobial resistance of *Salmonella* species from clinical specimens and food items in Lebanon. *The Journal of Infection in Developing Countries*, 11(01), 19-27.

⁴⁸ Jammoul, A., & El Darra, N. (2019). Evaluation of antibiotics residues in chicken meat samples in Lebanon. *Antibiotics*, 8(2), 69.

Kabrite, S., Bou-Mitri, C., Fares, J. E. H., Hassan, H. F., & Boumosleh, J. M. (2019). Identification and dietary exposure assessment of tetracycline and penicillin residues in fluid milk, yogurt, and labneh: A cross-sectional study in Lebanon. *Veterinary world*, 12(4), 527.

⁴⁹ Loukieh, M., Mouannes, E., Abou Jaoudeh, C., Hanna Wakim, L., Fancello, F., & Bou Zeidan, M. (2018). Street foods in Beirut city: An assessment of the food safety practices and of the microbiological quality. *Journal of Food Safety*, 38(3), e12455.

⁵⁰ El Darra, N., Gambacorta, L., & Solfrizzo, M. (2019). Multimycotoxins occurrence in spices and herbs commercialized in Lebanon. *Food Control*, 95, 63-70.

⁵¹ Elaridi, J., Dimassi, H., Estephan, M., & Hassan, H. F. (2020). Determination of Aluminum, Chromium, and Barium Concentrations in Infant Formula Marketed in Lebanon. *Journal of Food Protection*, 83(10), 1738-1744.

A Food Safety Law was adopted by the Lebanese Parliament in 2016 but is not yet approved by the Cabinet due to lack of clarity regarding the placement of the Food Safety Lebanese Commission (FSLC) under the authority of the Cabinet. The FSLC meant to oversee food safety issues throughout the food value chain (farming, importing, exporting, packaging, storing, and selling). The law also requires supporting decrees and ministerial decisions for effective implementation.⁵² In the interim, MoPH Decree No. 71 allows inspectors to routinely collect food samples from the market and test them for bacterial quality parameters and compliance with Codex Alimentarius standards. Regulation No. 950/1 requires food and beverage manufacturers to register with the Ministry of Agriculture (MoA) and to undergo an inspection of health and technical standards related to food safety, worker hygiene, pollution control, and control of production lines and processes.

FOOD AND NUTRITION SECURITY

Food security is one of the main underlying factors affecting nutritional status. Although Lebanon is still considered an upper-middle-income country, poverty and inequality are prevalent, with wide disparities across regions. Lebanon is subject to food insecurity⁵³ and with the existing refugee situation and the current economic crisis, there are indications that the problem has worsened. The unprecedented context has to led to the inclusion of Lebanon in the FAO-WFP food insecurity hotspot list in 2021.⁵⁴ According to a previously conducted food security review, 49% of the population were worried about being able to access sufficient food to meet the dietary needs and 31% reported being unable to eat healthy and nutritious food over the course of a year. Around 40% of Lebanese households living in the South were reported food insecure⁵⁵ and 52% in the Bekaa valley.⁵⁶ Particularly amongst children, food insecurity was linked to the worsening of nutritional status including stunting and obesity⁵⁷ and eating habits (dietary diversity).⁵⁸

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⁵² i.b.i.d

⁵³ IFPRI, W., & Worldwide, C. (2013). 2013 Global Hunger index. The challenge of hunger: Building resilience to achieve food and nutrition Security. Washington DC: International Food Policy Research Institute.

Hwalla, N., El Labban, S., & Bahn, R. A. (2016). Nutrition security is an integral component of food security. *Frontiers in life science*, 9(3), 167-172.

⁵⁴ Food and Agriculture Organization & World Food Programme. (2021). Hunger Hotspots FAO-WFP early warnings on acute food insecurity. https://docs.wfp.org/api/documents/WFP-0000125170/download/?_ga=2.18516537.1867580304.1622040599-569588866.1617866594

⁵⁵ Sahyoun, N. R., Nord, M., Sassine, A. J., Seyfert, K., Hwalla, N., & Ghattas, H. (2014). Development and validation of an Arab family food security scale. *The Journal of nutrition*, 144(5), 751-757.

⁵⁶ Ghattas, H., Barbour, J. M., Nord, M., Zurayk, R., & Sahyoun, N. R. (2013). Household food security is associated with agricultural livelihoods and diet quality in a marginalized community of rural Bedouins in Lebanon. *The Journal of nutrition*, 143(10), 1666-1671.

⁵⁷ Jomaa, L., Naja, F., Cheaib, R., & Hwalla, N. (2017). Household food insecurity is associated with a higher burden of obesity and risk of dietary inadequacies among mothers in Beirut, Lebanon. *BMC public health*, 17(1), 1-14.

⁵⁸ Jamaluddine, Z., Sahyoun, N. R., Choufani, J., Sassine, A. J., & Ghattas, H. (2019). Child-Reported Food Insecurity Is Negatively Associated with Household Food Security, Socioeconomic Status, Diet Diversity, and School Performance among Children Attending UN Relief and Works Agency for Palestine Refugees Schools in Lebanon. *The Journal of Nutrition*, 149(12), 2228-2235.

With the recent exacerbations -the economic crisis, coupled with the COVID-19 pandemic, and the most recent Beirut Port explosions- it has been reported that the food security situation has severely worsened. The national currency has lost 80% of its value and extreme poverty has risen sharply, from 8% to 23%, between 2019 and 2020.⁵⁹ The World Food Programme (WFP) in Lebanon reports that by June 2020, there was a 109% increase in the prices of food, 85% of which are imported, and that 50% of Lebanese respondents are worried about having enough to eat.⁶⁰ The recent m-VAM conducted by WFP and the World Bank reported that 55% of households reported not having enough food.⁶¹ A recent study on child labour showed that 84% of working children were concerned about not having enough to eat.⁶²

SYSTEMS, POLICIES, GUIDANCE, PROGRAMS AND RESEARCH

Governance and policies

Systems and structures governing nutrition in the country are divided amongst multiple entities including the Ministry of Public Health (MoPH), the Ministries of Agriculture, Economy and Trade, Industry, Social Affairs, Finance, Education and Higher Education, and Interior and Municipalities.⁶³ Within the MoPH, there are at least three departments that are engaged in nutrition activities including: 1) the Nutrition Department, 2) the Department of Maternal, Child, and School Health, and 3) the Primary Health Care Department.

While the various entities have divided responsibilities for nutrition services, the present challenge is coordination, as there remains no inter-ministerial coordination body for nutrition. As such, the management of activities is structurally complex. There are no clear mechanisms in place to facilitate collaboration between ministries or to monitor nutrition indicators, plan or execute initiatives in an integrated and holistic manner.

In terms of existing policies and guidance related to nutrition in Lebanon, the main relevant documents include the laws on food safety, consumer protection, the restrictions to marketing of breast-milk substitutes (Law 47/2008) to protect exclusive and continued breastfeeding, and salt fortification. In addition, other documents include the National

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⁵⁹ UN-ESCWA. (2020, August 19). ESCWA warns: more than half of Lebanon’s population trapped in poverty. <https://www.unescwa.org/news/lebanon-population-trapped-poverty>
⁶⁰ United Nations World Food Programme. (n.d.). Lebanon. <https://www.wfp.org/countries/lebanon>
⁶¹ World Food Programme & World Bank (2020). Lebanon m=VAM Vulnerability and Food Security Assessment. July-August 2020.
⁶² American University of Beirut. (2021, April 2). Lebanon Food Security Portal – Food Security Brief #13. <https://aub.edu.lb/fafs/foodsecurity/Documents/2021-04-02%28Lebanon-Food-Security-Portal-Food-Security-Brief13%29.pdf>
⁶³ Bahn, R. A., Nisr, R., & El Labban, S. (2018). Food Policy in Lebanon.

Agriculture Strategy, the MoPH Health Strategic Plan, the Infant and Young Child Feeding (IYCF) policy and the Non-Communicable Diseases Prevention and Control Plan (NCD-PCP). Appendix A includes tables with a listing of relevant documents that were identified.

Health system and nutrition service provision

The health care system in Lebanon has been able to sustain low rates of maternal and child mortality despite the challenges. The health care system is characterized by a private public mix, with a stronger private sector involvement. Most of the nutrition services are paid services within the private sector. At the Primary Health Care (PHC) level, nutrition services including counselling and education are being integrated mainly for prevention and management of NCD; dietetic consultations are included in the pre-paid packages of care for people with NCDs. Treatment of malnutrition and most counselling and nutrition education is conducted by other health care professionals such as doctors, nurses, and midwives.

Nationally, the number of nutrition and dietetics graduates seeking job opportunities is very high with more than seven universities providing nutrition degrees. At the same time, the number of dietitians and nutritionists available in public hospitals, primary health care centres, and dispensaries remains low.

Efforts are in place for the development of a Professional Order for Dietitians in Lebanon. This would help in ensuring accountability and that dietitians are able to work safely and professionally.

There are individual nutrition programs that are implemented in the country (*Appendix B*) including maternal and child nutrition (breastfeeding), school health nutrition,⁶⁴ nutrition education in nurseries, food safety initiatives, obesity prevention, and food assistance. However, these are not national and rely on external funding.

At the same time, there are several private and non-governmental initiatives implemented, and these are still arising based on the need and context of the community. They often cover the provision of a wide range of clinical and community nutrition services including but not limited to screening, assessment, and counselling. However, coordination remains a challenge posing a risk in the efficiency and efficacy of service provision and hindering the community to benefit from nutrition care assistance.

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⁶⁴ Saleh, R., Nakkash, R., & El-Jardali, F. Policy Brief (2019). Promoting Effective School Policies for Childhood Overweight and Obesity Prevention in Lebanon.

Information systems

There is no single health information system that is used by both private and public institutions in the country, and the existing health information systems do not allow the systematic collection of nutrition indicators. In addition, there is no regularly administered household nutrition survey. The majority of available data on nutritional status have been generated from small-scale observational studies that are not generalizable to the larger population.

There are no nationally developed tools for the consistent measurement and evaluation of nutrition-related outcomes that include a benchmark against which progress can be measured. This has been highlighted in several reports including by stakeholders interviewed during the process of development of this document. A number of national surveys are needed as a starting point including a national nutrition survey which would include food consumption data in addition to nutrition indicators. UNICEF is currently planning for the Multiple Indicators Cluster Survey (MICS) which will include some key indicators relevant to nutrition. In addition, there is a need for the expansion of a national nutrition surveillance system essential for the tracking of nutrition indicators. The MoPH currently implements the PHENICS, a health information system, in a number of primary health care centres. Indicators collected include weight, height, Mid-Upper Arm Circumference (MUAC), as well as breastfeeding status. However, these are not collected from all primary health care centres that are part of the MoPH network and therefore are not nationally representative. In addition, the MoPH provides medical files to every new-born on which weight and height as well as other feeding information are recorded. However, these charts are only in paper format and data is not centralised nor compiled electronically.

In terms of learning and building the evidence base, this review has compiled a list of universities engaged in nutrition research. Academic institutions contribute a great deal to the evidence related to nutrition in the country. Stakeholders have emphasized the value of academic research and confirmed reliance on such evidence within different ministries. Based on the literature review and the meetings conducted with seven⁶⁵ universities, a list of research topics which were prioritized by universities and research centres was compiled. These included: 1) maternal and child nutrition including IYCF and school nutrition, 2) diets/NCD/obesity, 3) food security, 4) food safety, 5) elderly nutrition, and other. However, it should be noted that in most cases, academic institutions rely on their own prioritization process for research, which may not necessarily be in line with national priorities. At the same time, there is no national research platform for sharing of information and synchronization of research priorities. The process adopted for the development of this document has facilitated a mapping of existing initiatives which may be a starting point for creating a unified research platform to share findings and research priorities.

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⁶⁵ There are more than 13 universities that offer a bachelor's degree in nutrition in the country; however, universities that had publications on nutrition were included in the review.

Food systems

Several gaps have been identified in the food system in Lebanon including:⁶⁶

1) Lack of self-sufficiency in food supply where Lebanon imports the majority of its food, 2) Gaps in agriculture production and diversification, 3) Lack of standards in what relates to nutritional content and composition, including labelling (fat, sugar, salt), 4) Gaps in implementation of the food safety law, and 5) Commonly consumed foods are high in trans fats, sugar and salt and offer very limited nutritional value.

At the same time, there remain challenges related to monitoring nutrition labels and nutrient content of foods (Box 1). A recently conducted analysis of the composition of most commonly consumed foods in Lebanon highlighted that most packaged food content does not match the content indicated on the package.⁶⁷ There are also no acceptable levels of salt, sugar and fat content of food in Lebanon.

Box 1. Nutrition labelling guidelines:

LIBNOR adopted the Codex Alimentarius standards on National Law:719 standard "General guidelines on nutrition labelling" for national context use in 2017. The guidelines provide guidance covering the areas of nutrient declaration and claims of supplementary nutrition information to ensure effective nutrition labelling. They do not include standards for quality nor limits to acceptable nutrient levels. The focus is on (1) mandatory nutrient declaration, (2) presentation of nutrient content in specified unit, (3) listing of nutrients including; energy, protein, carbohydrates, fats and saturated fat, sodium and/or salt, total sugars, trans fats, vitamins and minerals, in accordance with predefined criteria. The standard serves as a reference document for guidance of relevant authorities controlling supply systems of local and imported foods. Additional supplementary guidelines (National Law 661 and National Law 660) on the use of nutrition and health claims in food labelling have been adopted to protect consumers from any misleading or deceptive declared information.

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⁶⁶ Bahn, R. A., Nisr, R., & El Labban, S. (2018). Food Policy in Lebanon.

⁶⁷ Lebanese University. (2021). Food Composition Data: Traditional Dishes, Arabic Sweets and Market Foods. <https://ul.edu.lb/files/ann/20210422-LU-RePa-Report.pdf>

In terms of agriculture production, based on a recent policy brief on options for improving fruit production,⁶⁸ there is a need to address specific gaps in agriculture production and diversification including 1) the high fertilizer and pesticide usage, 2) the limited coordination between production, distribution and market, 3) water scarcity and poor water management, 4) the lack of capacity to produce volumes and quantities,⁶⁹ 5) the lack of adequate post-harvest cold storage facilities for fruits, and 6) the lack of political interest and prioritization in the agricultural sector.

Social protection and food assistance

The main social protection initiative, led by the Ministry of Social Affairs, is the National Poverty Targeting Program (NPTP) which includes 1) comprehensive health coverage for beneficiaries in public and private hospitals by waiving the 10–15% co-payment for hospitalization; 2) registration, fee waivers and free books for students in secondary and vocational public schools (primary public school fees were waived for everyone after the Syrian refugees influx); and 3) food assistance via the electronic card food voucher program. Food assistance was introduced in November 2014 to help mitigate the impact of the Syrian crisis on poor Lebanese. The World Bank reports that in 2020 NPTP was able to reach 43,000 households residing across Lebanon. Of these, 15,000 households were entitled to the electronic card food voucher. However, the prevailing economic and financial situation has heightened the need for social protection programs and support. Other social protection and livelihood programs include those supported by UN agencies such as the school feeding program implemented by WFP in public schools and the women empowerment program by the Food and Agriculture Organization (FAO) (*Appendix B*). To note that in the recent Reform, Recovery, and Reconstruction Framework for Lebanon (3RF),⁷⁰ targeting the nutritionally vulnerable is a key modality of intervention.

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⁶⁸ Policy Brief (2019). Enhancing Adherence to the Mediterranean Diet in Lebanon: Policy Options for Improving the Production and Consumption of Fruits.
⁶⁹ CBI Ministry of Foreign Affairs (2016). Export Value Chain Analysis Fresh Fruits and Vegetables Lebanon.
⁷⁰ World Bank Group, United Nations, & European Union. (2020). Lebanon Reform, Recovery, and Reconstruction Framework. <http://documents1.worldbank.org/curated/en/948021607068524180/pdf/Lebanon-Reform-Recovery-and-Reconstruction-Framework-3RF.pdf>.

Emergency preparedness

Lebanon has been facing multiple emergencies; the economic crisis and political instability, the Syrian refugee crisis with the influx of around 1 million refugees, the COVID-19 pandemic and the Beirut Port Explosions on 4 August 2020. In 2009, the United Nations Development Programme (UNDP) with the Office of the Prime Minister and other organizations launched the “Strengthening Disaster Risk Management Capacities in Lebanon” project, which aims at assisting the Government of Lebanon in developing its disaster management and risk reduction strategy. One of the main results of this project was the development of a national Disaster Risk Reduction (DRR) strategy and the establishment of a National Coordination Committee (NCC) by the Prime Minister. Provisions for nutrition emergency preparedness are not included. The Emergency Health Contingency Plan developed by the MoPH in 2012 outlines the preparedness level and response measures to be taken in case of crisis. The document does not highlight nutrition preparedness measures. In addition, there are no individual contingency plans for nutrition at the national level.

Conclusion on systems, policies, guidance, programs and research:

Nutrition is present in a number of systems (health and food systems) however it remains absent in a number of other systems (social protection, information, and emergency preparedness). There is a large human capacity in health and nutrition - more so in the private sector. However, there are gaps in governance in coordination for the planning, assessment, and implementation of nutrition sensitive and nutrition specific interventions that work towards a joint national goal for improving nutrition.

3

Opportunities and challenges

Opportunities and challenges

The current economic context and the heightened burden on the health care system pose a higher risk for exacerbation in the nutrition and food security situation. Nutrition governance and prioritization remain a challenge at the national level, with an impact on addressing nutrition gaps and ensuring optimal coordination of nutrition interventions. Current interventions rely on different entities including the public and private sectors; however, these are neither centralized nor coordinated. Additionally, the gap in consistent reporting on nutrition indicators in health information systems and as part of routine surveillance challenges the monitoring and evaluation processes.

Laws to protect consumers and provide them with safe food in addition to laws that protect nutrition-related practices such as breastfeeding are available; however, the level of implementation of these remains low and bodies to oversee their implementation process are not fully in place.

Despite the challenges that emergency situations create, these can be an opening to synergise efforts among actors, build on existing systems, and to mobilising resources towards progressive activities.

4

Goal and objectives

Goal and objectives

The **goal** of the National Nutrition Strategy is to ensure optimal nutritional outcomes amongst all persons residing in Lebanon and contribute to improving overall health and wellbeing.

The **outcome objectives** of the strategy are to:

- a. Improve maternal, infant, and young child nutrition including prevalence of micronutrient deficiencies and stunting.
- b. Reduce morbidity and mortality from non-communicable diseases by improving dietary and feeding habits.
- c. Improve food security and food safety at the national, community and household levels.

Key outcome indicators are presented in Table 3. This document comprises a detailed action plan with relevant indicators including the work on development of definitions and targets for relevant indicators.⁷¹

Table 3 - Outcome objectives and indicators

| Outcome objectives | Outcome indicators |
|---|--|
| Improve maternal, infant, and young child nutrition including prevalence of micronutrient deficiencies and stunting | <ul style="list-style-type: none"> » Reduce the number of children under 5 who are stunted by 10% » Reduce and maintain childhood wasting to less than 3% » Reduce low birth weight by 10% » Reduce anaemia in women of reproductive age by 20% » Improve rates of early initiation of breastfeeding and continued breastfeeding and, specifically, increase the rate of exclusive breastfeeding in the first 6 months up to at least 50% |
| Reduce morbidity and mortality from non-communicable diseases by improving dietary and feeding habits | <ul style="list-style-type: none"> » Reduce the prevalence of overweight in children under 5 to not more than 3% » Halt the rise in diabetes and obesity in adults » Halt the rise in overweight in school-age children and adolescents 5-18 years old » Reduce mean population intake of salt/sodium by 30% |
| Improve food security and food safety at the national, community and household level | <ul style="list-style-type: none"> » Reduce the proportion of households with food insecurity by 25% » Reduce the prevalence of foodborne illnesses by 10% |

⁷¹ Targets and indicators were developed using a participatory approach. However, given the lack of data it is important to continuously review the targets and ensure they are representative and realistic.

5

Strategic approach and guiding principles

Strategic approach and guiding principles

A multi-sectoral guiding framework (*Figure 1*): The strategy builds on several guiding frameworks including the WHO Regional Strategy on Nutrition⁷² for the Eastern Mediterranean Region (EMR) which builds on the United Nations Decade of Action on Nutrition, the socio-ecological framework, the framework for malnutrition,⁷³ and the guiding framework from the High Level Panel of Experts (HLPE) report.⁷⁴ Evidence for the use of a multi-sectoral approach has been previously provided⁷⁵ including the value of integration and liaison with different sectors.

Accordingly, the approach adopted in this strategy document is a population-centred approach where it is acknowledged that individual dietary behaviour and choice depends on several factors and inter-sectoral actions including 1) the food supply, 2) the food environment, 3) the health service environment, and 4) social protection and support systems (*Figure 1*). For each of these pillars, the policy environment as well as the information and learning/ research components play an integral role in shaping progress. In addition, leadership and governance are crucial for the implementation of the strategy.

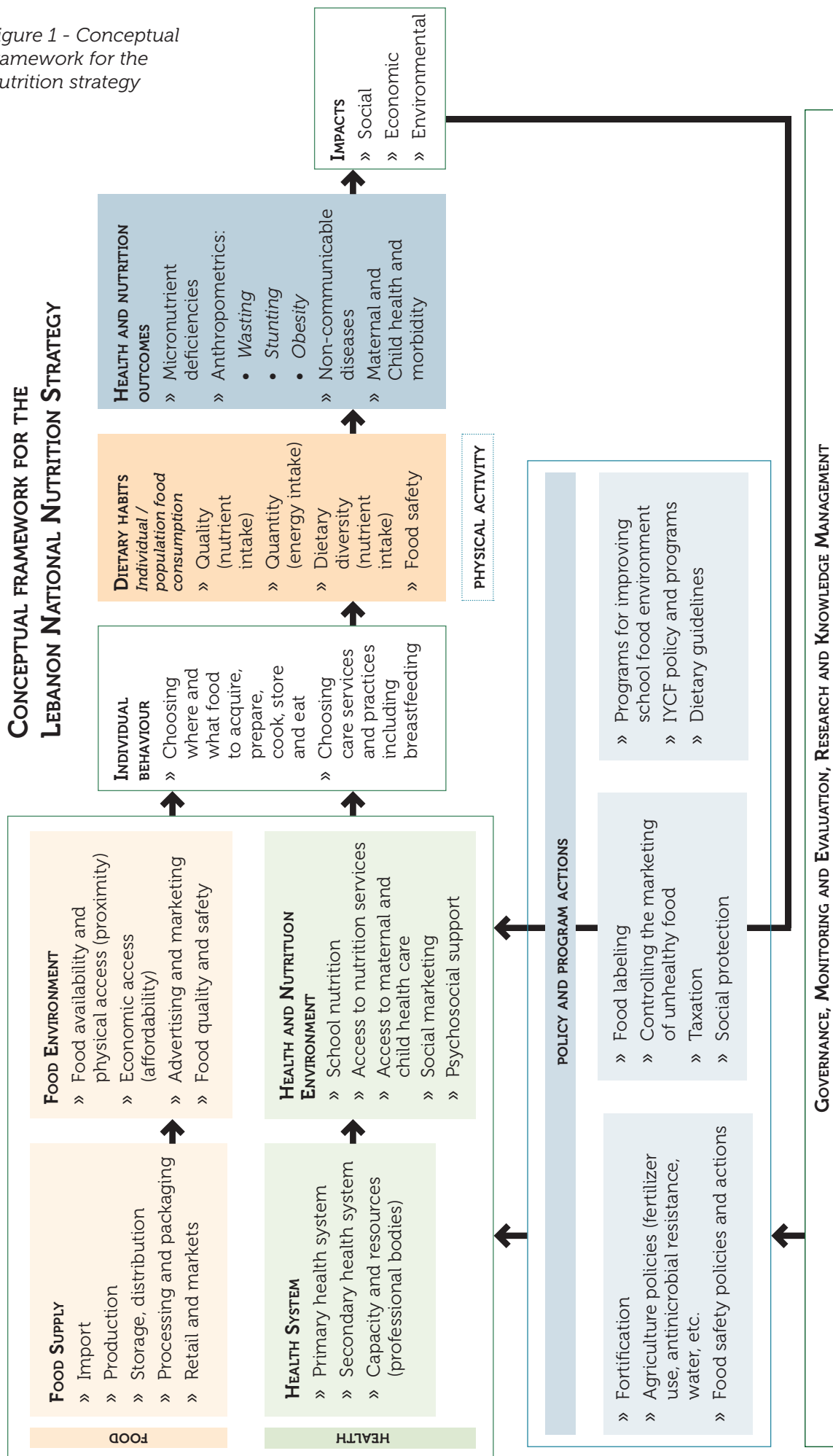
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⁷² World Health Organization. (2011). Regional strategy on nutrition 2010–2019 and plan of action (No. WHO-EM/NUT/256/E).

⁷³ United Nations Children's Fund (UNICEF). (1990). Strategy for Improved Nutrition of Children and Women in Developing Countries. New York, NY, UNICEF.

⁷⁴ HLPE. (2020). Food security and nutrition: building a global narrative towards 2030. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome. (Report N. 15) <http://www.fao.org/3/ca9731en/ca9731en.pdf>.

⁷⁵ A. O., Ghattas, H., Hassan, A. S., & Obeid, O. (2012). Nutrition and food security: the Arab world in transition. Public health in the Arab world, 123-135.

Figure 1 - Conceptual framework for the nutrition strategy



Sustainable nutrition and the Mediterranean diet as a cross cutting theme: In line with the SDGs and the need to shift food consumption to a diet that is healthy and that has a lower environmental footprint,⁷⁶ actions within this strategy will support the importance of ensuring a sustainable and healthy diet. Throughout the different food systems, actions will be targeted towards encouraging a diet that is healthy and sustainable including reducing food waste and increasing the consumption of fruits, vegetables, legumes, and whole cereals. Specifically, and based on recent reviews in Lebanon and the Middle East region,^{77,78} the Mediterranean diet will be advocated for as the sustainable means towards a healthy and balanced diet.

Prioritization of and investment in nutrition: Multiple reviews have emphasized that nutrition and food security are not prioritized⁷⁹ in Lebanon and therefore, in order to be able to address nutrition issues and contribute to improved health, there is a need to ensure that nutrition is repositioned and prioritized.

Emergency preparedness: Given the vulnerable situation in the country and the importance of ensuring preparedness and resilience, emergency preparedness will be at the core of the strategy. Throughout the strategy, every action will take into consideration provisions for emergency preparedness and contingency planning to ensure access to food and nutrition services for the most vulnerable.

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⁷⁶ Bahn, R. A., Nisr, R., & El Labban, S. (2018). Food Policy in Lebanon.

⁷⁷ El Labban, S. (2017). SUSTAINABLE CONSUMPTION FOR FOOD AND NUTRITION SECURITY IN THE MENAREGION. Youth and the Mediterranean: Exploring New Approaches to Dialogue and Cooperation, 10.

IFMeD. (2016). THE 2016 CALL FOR ACTION ON THE REVITALIZATION OF THE MEDITERRANEAN DIET. <https://www.ifmed.org/wp-content/uploads/2016/07/CALL-FOR-ACT-2016.pdf>

⁷⁸ MEDDIET Project. (2016). Chamber of Commerce Industry and Agriculture. <https://ccib.org.lb/en/?p=post&id=35>

⁷⁹ Hwalla, N., Al Dhaheri, A. S., Radwan, H., Alfawaz, H. A., Fouda, M. A., Al-Daghri, N. M., ... & Blumberg, J. B. (2017). The prevalence of micronutrient deficiencies and inadequacies in the Middle East and approaches to interventions. *Nutrients*, 9(3), 229.

6

Five key strategy areas

Five key strategy areas

The nutrition strategy is focused on five strategic areas that respond to the strategy objectives:

- » Strategy Area 1: Strengthened nutrition governance, accountability, and information management
- » Strategy Area 2: Aligned health systems providing universal coverage of essential nutrition services (HEALTH SYSTEMS)
- » Strategy Area 3: Sustainable, resilient food systems for healthy diets (SUPPLY)
- » Strategy Area 4: Safe and supportive environment for nutrition for all ages (ENVIRONMENT)
- » Strategy Area 5: Social protection for nutrition to ensure economic availability of safe food (SOCIAL PROTECTION)

For each of these identified areas, priority actions have been developed based on the situation analysis and the Lebanese context (*Figure 2*).

Figure 2 - Strategy areas and actions

STRATEGY AREA 1: STRENGTHENED MULTI-SECTORAL NUTRITION GOVERNANCE, ACCOUNTABILITY, AND INFORMATION MANAGEMENT

- » **Action 1.1:** Develop a national multi-sectoral policy framework and action plan for nutrition that ensures political commitment and continuity
- » **Action 1.2:** Develop an integrated, multi-sectoral information and surveillance system and a research plan that ensures updated nutrition information generation and sharing

1

STRATEGY AREA 2: ALIGNED HEALTH SYSTEMS PROVIDING UNIVERSAL COVERAGE OF ESSENTIAL NUTRITION SERVICES (HEALTH SYSTEMS)

- » **Action 2.1:** Support a strong and resilient primary and secondary health system that provides access to nutrition services
- » **Action 2.2:** Ensure the access to maternal and child nutrition services including maternal infant and young child feeding counselling for the prevention and treatment of child malnutrition
- » **Action 2.3:** Implement a prevention and treatment of non-communicable diseases program that includes nutrition counselling
- » **Action 2.4:** Develop and adopt standard national dietary guidelines
- » **Action 2.5:** Develop necessary emergency preparedness plans to respond to nutritional needs of most vulnerable during emergencies

2

STRATEGY AREA 3: SUSTAINABLE, RESILIENT FOOD SYSTEMS FOR HEALTHY DIETS (SUPPLY)

- » **Action 3.1:** Improve agriculture production in Lebanon and ensure access to sustainable, diverse and safe food
- » **Action 3.2:** Improve food production via the Food industry and ensure food is of high nutritional value, safe, and accessible to the people residing in Lebanon
- » **Action 3.3:** Implement and enforce the Food safety law and develop relevant legislative decrees
- » **Action 3.4:** Ensure emergency preparedness and contingency planning for nutrition and food security in humanitarian crisis or emergency situations

3

STRATEGY AREA 4: SAFE AND SUPPORTIVE ENVIRONMENT FOR NUTRITION AT ALL AGES (ENVIRONMENT)

- » **Action 4.1:** Implement programs to ensure safe and supportive school nutrition and child environment
- » **Action 4.2:** Implement the Infant and Young Child Feeding Policy including BFHI, community support, and limiting the marketing of Breast-Milk Substitutes
- » **Action 4.3:** Implement mandatory standards for ingredient listing, back-of-pack nutrient declarations and simplified front-of-pack labelling for all pre-packaged foods
- » **Action 4.4:** Implement social and behavioural change interventions for individuals of all ages in line with national guidelines

4

STRATEGY AREA 5: SOCIAL PROTECTION FOR NUTRITION TO ENSURE ECONOMIC AVAILABILITY OF SAFE FOOD (SOCIAL PROTECTION)

- » **Action 5.1:** Support and expand the National Poverty Social Protection network and other social protection programs

5

STRATEGY AREA 1: STRENGTHENED MULTI-SECTORAL NUTRITION GOVERNANCE, ACCOUNTABILITY, AND INFORMATION MANAGEMENT

Given the multi-sectoral nature of nutrition, there is a need to ensure leadership, governance, and accountability in nutrition. Roles and responsibilities of each entity engaged in nutrition need to be refined or specified. The Ministry of Public Health (MoPH) and the Ministry of Agriculture (MoA) are key ministries that will lead for the implementation of the strategy with specific and important roles for other ministries. Political commitment and funding are needed for the successful implementation of the strategy.

Action 1.1: Develop a national multi-sectoral policy framework and action plan for nutrition that ensures political commitment and continuity

The first action for ensuring political commitment and prioritization of nutrition is the identification and implementation of an **operational policy framework** for nutrition that would engage the different relevant ministries with clear roles and responsibilities. The operational policy framework would consist of:

- » A **national multi-sectoral action plan on nutrition** with clear targets and indicators, which would facilitate the operationalization of the strategy and its implementation. Funding needs should also be identified and as well as prioritization of actions and activities.
- » The **establishment of an inter-departmental nutrition committee** at the Ministry of Public Health with clear terms of reference, roles and responsibilities.
- » Strengthening national cross-government, **multi-sectoral coordination** mechanisms for nutrition, with clear terms of reference. This may include the establishment of an inter-ministerial working group for nutrition under the cabinet of Ministers that includes the relevant ministries and active nutrition entities with clear roles and responsibilities (Box 2). It would also be based on existing coordination mechanisms such as the health working group, the nutrition platform previously activated by WFP, and the Nutrition Sector currently active and led by UNICEF and co-led by ACF.

Box 2 - Actors to be engaged in coordination and management of nutrition

- » Ministry of Public Health (Lead)
- » Ministry of Agriculture (Co-Lead)
- » Ministry of Economy and Trade
- » Ministry of Industry
- » Ministry of Social Affairs
- » Ministry of Education and Higher Education
- » Ministry of Finance
- » Ministry of Interior and Municipalities
- » Ministry of Information
- » Ministry of Water and Energy
- » UN agencies (WHO, UNICEF, WFP, UNHCR, UNFPA, FAO)
- » Others (LIBNOR, professional orders, NGOs etc.)

Action 1.2: Develop an integrated, multi-sectoral information and surveillance system and a research plan that ensures updated nutrition information generation and sharing

In order to address gaps in information and data, there is a need to:

- » Create and strengthen nationwide **nutrition surveillance** systems and improve the use and reporting of relevant indicators of nutrition and food security. This should be in line with identified international and national indicators for tracking of the nutrition situation in the country as well as the monitoring and evaluation framework for implementation of the Regional Strategy on Nutrition.
- » Update and expand **national food composition databases**, with standardized methodology and reporting, in line with WHO Regional Office recommendations and creating linkages with INFOODS data platform.

There is a need to build on the existing academic and research institutions and expand it to create a national research and learning agenda via:

- » The establishment of a national nutrition platform that includes academic and research institutions active in nutrition research and relevant sectors. The platform would provide the opportunity for researchers in the health and nutrition field as well as professionals including professional orders and syndicates to liaise and share knowledge. The activation of a national nutrition platform will also facilitate a **unified research agenda** that responds to existing information gaps and nutritional needs at national level as well as identify needs for additional surveys.
- » The development of a register of ongoing studies, interventions, and initiatives in order to avoid duplication, as highlighted by stakeholders in the consultative meetings. Data centralization amongst stakeholders was also recommended in order to improve nutrition data availability.

STRATEGY AREA 2: ALIGNED HEALTH SYSTEMS PROVIDING UNIVERSAL COVERAGE OF ESSENTIAL NUTRITION SERVICES (HEALTH SYSTEMS)

A strong and resilient health system is important to ensure that key nutrition actions and services are accessible and available. Within the existing health structure, there is a need to ensure access to standardized nutrition services for nutrition at all ages.

Action 2.1: Support a strong and resilient primary and secondary health care systems that provide access to nutrition services

Nutrition education and capacity need to be available and accessible within the health system via available health care providers and nutrition professionals. In order to strengthen the health system and be able to provide quality nutrition services, there is a need to:

- » Integrate relevant nutrition services and dietetics counselling services within primary health care including for infants, children, adults, older adults and individuals with special nutrition problems. This means that **nutrition counselling** needs to be **available, accessible, and affordable** at the primary health care level including both public and private. Options such as linking with academic institutions to facilitate the availability of nutrition interns at the primary health care level can be considered. Other provisions may include health coverage or **insurance** for dietetic services.
- » **Build the capacity of health care providers** (in-service training) and improving on nutrition education within higher education institutions⁸⁰ (pre-service training) in relation to the identification of nutritional risk including that of vulnerable groups such as maternal and child nutrition and older persons' nutrition.
- » Ensure and maintain quality nutrition services via the development and support of a **professional body for nutrition and dietetics** in Lebanon. This is to ensure that the profession is protected, and that the quality of services is monitored under a qualified authority.
- » Scale up and integrate **community-based nutrition services** within existing primary health care services including school nutrition and mother support groups.
- » Integrate quality nutrition and dietetics services (including counselling and provision of safe and adequate hospital food) within **secondary health care** to respond to the needs of hospitalized patients including those at risk of hospital-based malnutrition. This includes ensuring access to dietitians in all hospitals. It also includes addressing any needed nutrition standards for foods served in hospitals.

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⁸⁰ Jaalouk, D., Dagher, S., Kabrite, S., Arrouk, V., & Farhat, A. G. (2008). Impact of a basic Nutrition Course on Nutritional Knowledge & Dietary Behavior of Undergraduate University Students.

Action 2.2: Ensure the access to maternal and child nutrition services including maternal infant and young child feeding counselling for the prevention and treatment of child malnutrition

Maternal and Child nutrition services including screening and treatment of acute malnutrition, stunting, and micronutrient deficiencies as well as infant and young child feeding (IYCF) counselling and education need to be **standardized and integrated** within existing public and private primary health care systems including to:

- » Strengthen and implement a standardized child growth monitoring for children under 5 years of age.
- » Scale up screening and treatment of malnutrition if/when needed, monitor, and sustain.
- » Standardise IYCF counselling and education in line with the National IYCF Policy across primary and secondary health, including Baby-Friendly Hospital Initiative (BFHI), and between the private and public sectors.
- » Implement micronutrient supplementation and micronutrient deficiency screening in line with a micronutrient deficiency program.
- » Implement and standardise maternal nutrition counselling and micronutrient supplementation across public and private sectors.

Action 2.3: Implement a prevention and treatment of non-communicable diseases program that includes nutrition counselling

In line with the **Non-Communicable Disease Prevention and Control Plan** and the subsidized long-term PHC packages of care, there is a need to continue and expand the implementation of screening for NCDs. This would include ensuring nutrition counselling and support for prevention and treatment of NCDs.

Action 2.4: Develop and adopt standard national dietary guidelines

There is a need to develop **standard dietary guidelines** for different groups in the population including: infants and young children, school aged children, adolescents, adults, older persons, and individuals with special needs.

There is a need to ensure that existing guidelines are reviewed and formally adopted and disseminated by the MoPH and professional orders and syndicates. In general, the Mediterranean diet and lifestyle is the one that is most suited to be adopted. However, there is a need for validated guidelines for each of the age groups.

Action 2.5: Develop necessary emergency preparedness plans to respond to nutritional needs of the most vulnerable during emergencies

The aim of having an emergency preparedness plan in place is to reduce the impact of the emergency consequences and to ensure that there are adequate capacities and programs to meet the immediate needs of the population in times of crisis. As such, emergency preparedness in Lebanon remains critical. Given the volatile nature of the country and proneness to different kinds of emergencies, there is an urgent need to develop an updated and inclusive contingency plan and to further focus on strengthening efforts to ensure its effective implementation.

There is need to update existing emergency plans to include provision for nutrition and especially IYCF in line with the Sphere guidance⁸¹ and the Operational Guidance on IYCF-E.⁸² Specific effort needs to be put on prevention and management of donations of Breast-milk Substitutes in times of emergencies in line with the International Code of Marketing of Breast-milk Substitute and subsequent resolutions (the Code). The plan needs to be aligned with existing health contingency planning and the health sector plan. The plan would be able to address the current economic crisis and should link to the Universal Health Coverage strategy of the MoPH.

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⁸¹ Sphere. (2018). The sphere handbook: Humanitarian charter and minimum standards in humanitarian response. <https://handbook.spherestandards.org/en/sphere/#ch001>

⁸² IFE Core Group. (2017). Infant and young child feeding in emergencies: Operational guidance for emergency relief staff and programme managers. https://www.enonline.net/attachments/3127/Ops-G_English_04Mar2019_WEB.pdf

STRATEGY AREA 3: SUSTAINABLE, RESILIENT FOOD SYSTEMS FOR HEALTHY DIETS (SUPPLY)

The burden of nutrition issues is closely linked to the state of the food system (*Figure 1*). The nature of the food produced, its quality, nutritional value, quantity, safety, and availability including affordability and utilization all play a role in shaping the behaviour around food consumption. At the same time, the marketing and advertising of foods that are high in salt, sugar, and trans fats has become a key factor affecting consumer behaviour. Transformation in the food system in Lebanon, notably the supply of food, is needed so that nutritious, safe, affordable, and sustainable healthy diets are available to all.

Action 3.1: Improve agriculture production in Lebanon and ensure access to sustainable, diverse and safe food

There is a need to ensure that nutrition priorities are **integrated within the Lebanon National Agriculture Strategy**. Actions that can be considered include increasing variety in types of cereals produced and cultivated⁸³ as well as improving the fruits and vegetable cultivation in Lebanon.

The main actions to consider integrating within the agriculture strategy include to:

- » Increase and support quality agriculture production and good agricultural practices by enforcing quality control including those related to fertilizer and pesticide use and antimicrobial resistance and address gaps in implementation of existing policies.
- » Support the production of various types of cereals as well as fruits and vegetables including subsidy and payment support for farmers.
- » Decrease food waste and food loss by ensuring quality post-harvest refrigeration and storage facilities, including introducing innovative technology for processing and preservation of fruits and vegetables to retain their nutritional value and ensure all year availability.
- » Implement adequate traceability measures of fruits and vegetables via the food system supply chain.
- » Support local agricultural production and initiatives that contribute to food and nutrition security including school and community gardens.
- » Ensure that agricultural produce is available and affordable in the market and encourage farmers to market their products locally.

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⁸³ Sadek, M. A. (2018). Whole grains consumption in Lebanon: the missing link for food and nutrition security—a food systems approach. Policy Brief (2019). Enhancing Adherence to the Mediterranean Diet in Lebanon: Policy Options for Replacing Refined Cereals and Grains with Whole Grains.

Action 3.2: Improve food production via the food industry and ensure food is of high nutritional value, safe and accessible to the people residing in Lebanon

There is a need to ensure that the food supplied by the food industry in Lebanon is of high nutritional value including low in trans fatty acids (TFA), salt and sugar. The following actions are needed to ensure supply of high quality, safe, and nutritious food:

- » Map existing food standards related to TFA, sugar, and salt.
- » Implement necessary changes and develop appropriate **standards** for TFA to eliminate industrially produced TFA from the food supply according to WHO best practice.⁸⁴
- » Develop mandatory standards with maximum **salt** levels for identified products.
- » Develop a plan for the implementation of **taxation** on sugar sweetened beverages in consultation with technical specialised national groups.
- » **Implement relevant micronutrient fortification initiatives.** Based on the policy brief for iodine fortification, iodine fortification implementation needs to be reconsidered. In terms of iron fortification, although flour fortification has been recommended, Lebanon has no legislation on flour fortification due to a lack of consensus.⁸⁵ Therefore, discussions around the need for iron fortification should take place to reach consensus on whether to recommend or dismiss fortification of flour. Barriers need to be identified in order to be addressed. Fluoridation is another area to be considered.
- » Ensure that **international trade and import policies** – possibly via a Food Law –integrate nutrition priorities including standards and restrictions related to food content and food labelling. This would also include monitoring the content of food that is imported to ensure it abides by the relevant standards. These include fresh foods as well as processed foods and infant foods.
- » Decrease **food loss and waste** and minimize the environmental impact of food production by developing relevant environmental impact policies addressing the food industry.
- » Encourage the production of food that is of high nutritional value via different initiatives (small producers/women cooperatives). This includes encouraging cooperatives to produce traditional Lebanese food by providing financial and other kinds of support and conducting consumer awareness and education for creating demand for such foods.

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⁸⁴ This includes developing mandatory national limits of 2 g of industrially produced TFA per 100g of total fat in all food, and mandatory national ban on the production or use of Palm Hydrogenated Oil as an ingredient in all foods.
World Health Organization. (n.d.). REPLACE: Trans-fat free by 2023. <https://www.who.int/teams/nutrition-and-food-safety/replace-trans-fat#:~:text=The%20REPLACE%20action%20package%20provides,heart%20disease%20mortality%20and%20events>.

⁸⁵ Bahn, R. A., Nisr, R., & El Labban, S. (2018). Food Policy in Lebanon.

Action 3.3: Implement and enforce the food safety law and develop relevant legislative decrees

In order to ensure food safety across the supply chain, there is a need to:

- » Support the enforcement and implementation of the food safety law and other relevant legislations. This would include activation of the **Lebanese Food Safety Authority** in order to galvanize efforts for the implementation of the food safety law, the development of necessary **legislative decrees**, and the collaboration with relevant entities such as municipalities for the monitoring of the implementation of existing laws.
- » Adopt technical regulations for standards related to food safety including identification of priority tests for each product.

Action 3.4: Ensure emergency preparedness and contingency planning for nutrition and food security in humanitarian crisis or emergency situations

Amidst the economic crisis that the country is going through and the vulnerability of the situation in Lebanon, it is important to mitigate the negative effects on nutrition and food security. Therefore, there is a need to ensure that plans are in place to respond to the nutritional needs of the most vulnerable. Actions that are needed include to:

- » Develop a nutrition contingency plan for food supply that includes provisions for ensuring food supply and stocks during emergencies. The plan would be linked to existing nutrition contingency planning including the food security sector plan, etc.
- » Develop guidance for food assistance including recommendations for the content of a food basket that abides by international standards for nutrition in emergency.

STRATEGY AREA 4: SAFE AND SUPPORTIVE ENVIRONMENT FOR NUTRITION FOR ALL AGES (ENVIRONMENT)

One of the main components affecting consumer behaviour is the local food environment which includes the available food, its quality, its price, and the extent to which it is promoted.⁸⁶ Ensuring a safe and supportive food environment across the life span is important in order to positively influence consumer choice and feeding behaviour.

Action 4.1: Implement programs to ensure safe and supportive school nutrition and child environment

Promoting healthy school environment is key for the prevention of child obesity and addressing child nutrition issues. In line with the NCD Prevention and Control Plan and the MoPH Health Strategic Plan, there is a need to promote and implement healthy school programs targeting both public and private schools.

Based on the policy analysis on school nutrition and subsequent meetings,⁸⁷ key elements are needed for ensuring safe and supporting school nutrition and child environment.

- » Integrate nutrition and physical activity programs in the school curricula in line with the WHO Guidelines on Physical Activity and Sedentary Behaviour.⁸⁸ That includes specific sessions allocated to health education and to physical activity within the students' school schedules as well as securing open spaces, recreation areas and walkable neighbourhoods.
- » In line with the WHO Recommendations on Marketing of Foods and Non-alcoholic beverages to children,⁸⁹ control the standards, availability, accessibility, affordability and marketing of foods and drinks in the school food shops as well as shops near schools. These should apply to both private and public schools.
- » Issue a law or relevant policies that prohibit street vendors and retail stores near schools.
- » Ensure that schools are free from all forms of marketing of foods high in saturated fats, TFA, free sugars, or salt.
- » Promote school initiatives such as school gardens as a learning platform for traditional food cultivation, and to encourage higher consumption of these foods.

86 Saleh, R., Nakkash, R., & El-Jardali, F*. K2P Policy Brief: Promoting Effective School Policies for Childhood Overweight and Obesity Prevention in Lebanon. Knowledge to Policy (K2P) Center, Beirut, Lebanon, March 2019. <https://www.aub.edu.lb/k2p/Documents/K2P%20Policy%20Brief-%20School%20Policies%20for%20Childhood%20Obesity%20Prevention%20in%20Lebanon-March%202019.pdf>.

87 Saleh, R., Nakkash, R., & El-Jardali, F. Policy Brief (2019). Promoting Effective School Policies for Childhood Overweight and Obesity Prevention in Lebanon.

88 World Health Organization. (25 November, 2020). WHO Guidelines on Physical Activity and Sedentary Behavior. <https://www.who.int/publications/i/item/9789240015128>

89 World Health Organization. (2010) Set of Recommendations on Marketing of Foods and Non-alcoholic Beverages to Children. http://apps.who.int/iris/bitstream/handle/10665/44416/9789241500210_eng.pdf?sequence=1

Action 4.2: Implement the Infant and Young Child Feeding Policy including BFHI, community support, and limiting the marketing of Breast-Milk Substitutes

In line with the National IYCF policy and the **National IYCF action plan**, there is a need to ensure that the nutritional needs of infants and young children are met through the implementation of relevant actions. The action plan makes provisions to support the implementation of the 10 policy statements including to:

- » Develop relevant legislations for the implementation of Law 47/2008 that translates the International Code of Marketing of Breast-milk Substitutes.
- » Implement breastfeeding awareness campaigns based on identified gaps in feeding practices.
- » Implement and support the Baby-Friendly Hospital Initiative.
- » Develop relevant policies for safe and supportive nutrition environment in pre-school institutions.
- » Record and report on IYCF indicators via regular surveillance and representative IYCF surveys.

Action 4.3: Implement mandatory standards for ingredient listing, back-of-pack nutrient declarations and simplified front-of-pack labelling for all pre-packaged foods

There is a need to ensure the implementation of standard food labelling that accurately translates the content of the food.

- » Enforce the implementation of the standards related to food labelling by relevant technical regulations.
- » Review existing food labelling standards and implementing relevant policies that encourage a comprehensive user-friendly front packaging and labelling scheme. Label should clearly indicate the trans-fat content of the food product.
- » Implement a process for pre-approval for health claims used on food products by relevant authorities including the Ministry of Public Health.

Action 4.4: Implement social and behavioural change interventions for individuals of all ages in line with national guidelines

There is a need to implement comprehensive social and behavioural change interventions focusing on the different nutritional issues in the country and targeting the public with emphasis on the most vulnerable.

- » Raise awareness about risk of NCDs and factors associated with risk for NCD including diets.
- » Implement nutrition education and awareness campaigns around labelling for the public.
- » Implement breastfeeding and infant feeding awareness campaigns including complementary feeding.

STRATEGY AREA 5: SOCIAL PROTECTION FOR NUTRITION TO ENSURE ECONOMIC AVAILABILITY OF SAFE FOOD (SOCIAL PROTECTION)

Social protection for nutrition can help improve multiple nutrition dimensions and situations of marginalized and vulnerable populations. Its impact can improve food security, dietary quality, and diversity, and reduce poverty. In addition, linking nutrition and social protection enhances economic activity and social inclusion which can also influence determinants of nutrition outcomes. Given its importance in terms of nutrition security, social protection programmes ought to incorporate nutrition objectives as one of their priorities.

Action 5.1: Support and expand the National Poverty Social Protection network and other social protection programs

According to the “Strategic Review of Food and Nutrition Security in Lebanon”,⁹⁰ there is a need for a transition of the current system of social support through subsidies into a **targeted social programming** that eventually leads to the establishment of a universal nationally defined social protection floor. However, in the immediate term, there is a need to continuously support the existing NPTP. There is also a need to focus on women and children to promote resilient livelihoods⁹¹ and for social protection policies to prioritize the nutritionally vulnerable in alignment with the Social Protection and Nutrition Tool.⁹² The comprehensive social protection program should build on the current social protection strategy within the social protection working group.

In order to address gaps in food security, other social support systems are to be considered including:

- » School feeding programs in vulnerable areas and targeting vulnerable children. There is evidence to show that such programs positively contribute to both improving the dietary habits and potentially household food security.^{93,94}
- » Women entrepreneurship and cooperative programs. Programs such as community kitchens and women cooperatives have showed to contribute to improving household food security and livelihood.⁹⁵

90 ESCWA. (2016). Strategic Review of Food and Nutrition Security in Lebanon. <https://docs.wfp.org/api/documents/WFP-0000019217/download/?ga=2.58837677.1867580304.1622040599-569588866.1617866594>

91 Jomaa, L., Naja, F., Cheaib, R., & Hwalla, N. (2017). Household food insecurity is associated with a higher burden of obesity and risk of dietary inadequacies among mothers in Beirut, Lebanon. *BMC public health*, 17(1), 1-14.

92 Food and Agriculture Organization of the United Nations. (2015). Nutrition and Social Protection. <http://www.fao.org/3/a-i4819e.pdf>

93 Ghattas, H., Jamaluddine, Z., Choufani, J., Masterson, A. R., & Sahyoun, N. R. (2019). Improvements in economic, social, and food security outcomes of Palestinian refugee women and diet diversity of Palestinian schoolchildren in Lebanon: the Healthy Kitchens, Healthy Children intervention. *The Lancet*, 393, S25.

94 Ghattas, H., Choufani, J., Jamaluddine, Z., Masterson, A. R., & Sahyoun, N. R. (2020). Linking women-led community kitchens to school food programmes: lessons learned from the Healthy Kitchens, Healthy Children intervention in Palestinian refugees in Lebanon. *Public Health Nutrition*, 23(5), 914-923.

95 Ibrahim, N., Honein-AbouHaidar, G., & Jomaa, L. (2019). Perceived impact of community kitchens on the food security of Syrian refugees and kitchen workers in Lebanon: Qualitative evidence in a displacement context. *PLoS one*, 14(1), e0210814.

National Nutrition Action Plan

2021-2026

National Nutrition Action Plan 2021-2026

The following is a work plan that would facilitate the operationalization of the National Nutrition Strategy and ensure its implementation. The plan should be costed, reviewed, and adapted on a yearly basis to fit emerging needs.

| STRATEGY AREA 1: STRENGTHENED MULTI-SECTORAL NUTRITION GOVERNANCE, ACCOUNTABILITY, AND INFORMATION MANAGEMENT | | | |
|--|--|------------------|---|
| Action 1.1: Develop a national multi-sectoral policy framework and action plan for nutrition that ensures political commitment and continuity | | | |
| Activity | By whom | By when | Output indicator |
| 1.1.1. Develop and implement national multi-sectoral action plan on nutrition | MoPH, WHO, MoA, MoE, MoSA, UN agencies | 2021 | National action plan on nutrition developed |
| a. Monitor national multi-sectoral action plan on nutrition | MoPH | 2021-2025 | Indicators for monitoring of action plan developed |
| 1.1.2. Establish an inter-departmental nutrition committee at the MoPH with clear terms of reference, roles, and responsibilities | MoPH | 2021 | Inter-departmental nutrition committee formally established |
| a. Develop terms of reference including roles and responsibilities for members of the committee | MoPH | 2021 | Terms of reference on roles and responsibilities developed |
| 1.1.3. Establish and strengthen national multi-sectoral coordination mechanisms for nutrition | | | |
| a. Develop terms of reference that specify roles and responsibilities of nutrition departments/entities in different ministries including UN agencies and the Nutrition Sector | MoPH, MoA, MoE, MoSA, UN agencies | 2021 | Terms of reference on roles and responsibilities developed |
| Action 1.2: Develop an integrated, multi-sectoral information and surveillance system and a research plan that ensures updated nutrition information generation and sharing | | | |
| Activity | By whom | By when | Output indicator |
| 1.2.1. Create and strengthen nutrition surveillance systems for reporting and monitoring on nutrition indicators | | | |
| a. Develop list of nutrition and food security indicators to monitor regularly that is in line with the action plan and strategy | Joint taskforce | 2021 | List of nutrition indicators finalized |
| b. Identify data collection platforms for collection of nutrition and food security indicators (HIS and EWARIN) | Joint taskforce | 2021 | Platforms for collection of nutrition indicators identified |
| c. Conduct national nutrition surveys that include identified indicators | Joint taskforce | Yearly/regularly | National survey on nutrition conducted |

| | | | |
|--|---------------------|--------|--|
| d. Develop yearly report/bulletin on nutrition indicators | MoPH | Yearly | Nutrition bulletin developed |
| 1.2.2. Update and expand on national food composition databases | | | |
| a. Conduct national food composition analysis | Lebanese University | 2021 | Report on food composition analysis of most consumed food products developed |
| 1.2.3. Activate a research platform for coordination and identification of research priorities | | | |
| a. Develop a register of national nutrition studies (a preliminary list has already been compiled) | Joint taskforce | 2021 | National research register developed and is accessible |
| b. Develop a national nutrition research agenda that will be reviewed yearly and to which academic institutions will contribute to | Joint taskforce | 2021 | National nutrition research agenda developed Academic institutions contribute to 50% of national agenda on a yearly basis |

| STRATEGY AREA 2: ALIGNED HEALTH SYSTEMS PROVIDING UNIVERSAL COVERAGE OF ESSENTIAL NUTRITION SERVICES (HEALTH SYSTEMS) | | | |
|---|--------------------------------|----------------|--|
| <i>Action 2.1: Support a strong and resilient primary and secondary health system that provides access to nutrition services</i> | | | |
| Activity | By whom | By when | Output indicator |
| 2.1.1. Make nutrition counselling and other nutrition services available and affordable at the primary health care level | | | |
| a. Facilitate the availability of nutrition interns in public primary health care centres | MoPH | 2022 | 10% of primary health care centres provide nutrition services via nutrition interns |
| b. Work with insurance companies to facilitate the coverage of nutrition consultations | Joint taskforce | 2023 | Insurance companies have the option of covering nutrition consultations |
| 2.1.2. Integrate community-based nutrition services within existing primary health services including school nutrition and mother support groups | | | |
| a. Develop and roll out SOPs for community nutrition services within primary health services | MoPH MoPH, MoSA, MEHE | 2022 2023 | SOPs for community nutrition services developed SOPs for community nutrition rolled out |
| 2.1.3. Establish a professional order of dietitians and nutrition professionals | Joint taskforce | 2021 | Professional order for dietitians formally established |

| | | | |
|--|------------------------------|----------------|--|
| 2.1.4. Formalise lactation and breastfeeding support as per the IYCF action plan | MoPH IYCF national committee | 2022 | Formal association for lactation support formed |
| 2.1.5. Ensure access to dietitians in all hospitals in Lebanon | | | |
| a. Develop standard terms of reference for dietitians in hospitals and agree on a minimum ration dietitian/patient per hospital | Joint taskforce | 2022 | ToRs for dietitians in hospitals developed |
| 2.1.6. Build nutrition capacity of health care providers | | | |
| a. Implement a capacity needs assessment of health care providers | MoPH | 2021 | Capacity needs assessment conducted |
| b. Develop a nutrition capacity building plan for health care providers including in relation to identification of nutritional risk | MoPH | 2022-2023 | Nutrition capacity building plan rolled out |
| Action 2.2: Ensure the access to maternal and child nutrition services including maternal infant and young child feeding counselling for the prevention and treatment of child malnutrition | | | |
| Activity | By whom | By when | Output indicator |
| 2.2.1. Develop a plan for integration of IYCF counselling of mothers and caregivers as per the IYCF action plan | MoPH IYCF national committee | 2021 | Plan for integration of IYCF counselling is developed |
| 2.2.2. Implement a standardized child growth monitoring system including screening for under-nutrition (acute malnutrition and stunting) and over-nutrition (overweight and obesity) at the public and private level | Joint taskforce | 2023 | Weight and height of children under 5 are recorded on a regular basis National report on growth indicator is published on a yearly basis |
| 2.2.3. Implement an agreed upon micronutrient screening and supplementation protocol for children and women of reproductive age including iron supplementation | Joint taskforce | 2023 | National Protocol for screening for anaemia and iron supplementation is developed and disseminated |
| Action 2.3: Implement a prevention and treatment of non-communicable diseases program that includes nutrition counselling | | | |
| Activity | By whom | By when | Output indicator |
| 2.3.1. Implement the NCD Prevention and Control Plan including screening for NCDs and provision of nutrition counselling | MoPH | 2023 | NCD Prevention and Control Plan monitored Number of adults over 40 years of age screened for NCD Number of adults over 40 years of age provided with nutrition counselling for NCD |

| Action 2.4: Develop and adopt standard national dietary guidelines | | | |
|---|---------------------------------|----------------|---|
| Activity | By whom | By when | Output indicator |
| 2.4.1. Develop and disseminate national guidelines on feeding of infants and young children including complementary feeding as per the IYCF action plan | MoPH National IYCF Committee | 2021 | National IYCF guidelines developed Number of health care professionals receiving a copy of the guidelines |
| 2.4.2. Develop and disseminate national guidelines on maternal nutrition as per the IYCF action plan | MoPH National IYCF Committee | 2021 | National guidelines on maternal nutrition developed Number of health care professional receiving a copy of and orientation on the guidelines |
| 2.4.3. Review, adopt, and disseminate national nutrition guidelines for adults and older adults in line with the Mediterranean diet | Joint taskforce | 2022 | National dietary guidelines adopted and disseminated |
| Action 2.5: Develop necessary emergency preparedness plans to respond to nutritional needs of the most vulnerable during emergencies | | | |
| Activity | By whom | By when | Output indicator |
| 2.5.1. Develop SOPs for nutrition in emergencies interventions (including food assistance and IYCF-E as per the IYCF action plan) ⁹² | Nutrition Sector | 2021 | SOPs for nutrition interventions in emergencies and special circumstances developed |
| 2.5.2. Develop key messages on nutrition in emergencies to be used for mainstreaming nutrition in emergency and humanitarian response | Nutrition Sector | 2021 | Key messages on nutrition in emergencies developed |
| 2.5.3. Develop an emergency preparedness plan on nutrition in line with the Global Nutrition Cluster process and as per the IYCF action plan and update regularly | Nutrition Sector | 2021 | Nutrition emergency preparedness plan developed |
| 2.5.4. Review existing emergency preparedness plan and integration nutrition key messages/provisions | Nutrition Sector | 2021 | Nutrition mainstreamed in existing emergency preparedness plans |
| 2.5.5. Conduct a capacity mapping on nutrition in emergency targeting local grassroots organizations | Nutrition Sector | 2021 | Capacity mapping on nutrition in emergency conducted |
| 2.5.6. Implement a capacity building plan on nutrition in emergencies that responds to gaps identified in capacity mapping | Nutrition Sector | 2021-2022 | Number of NGO staff receiving training on nutrition in emergencies |

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⁹² With emphasis on prevention and management of BMS donations and violations to Law 47/2008.

| STRATEGY AREA 3: SUSTAINABLE, RESILIENT FOOD SYSTEMS FOR HEALTHY DIETS (SUPPLY) | | | |
|---|-----------------|----------------|---|
| Action 3.1: Improve agriculture production in Lebanon and ensure access to sustainable, diverse and safe food | | | |
| Activity | By whom | By when | Output indicator |
| 3.1.1. Integrate nutrition priorities within agriculture strategy including supporting the production of fruits and vegetables | MoA | | |
| a. Implement a program for the support of fruits and vegetables production including subsidy and payment support for farmers | MoA | 2021-2024 | Number of farmers supported for the production of fruits and vegetables |
| b. Implement a program for the support of local agricultural production and initiatives that contribute to food and nutrition security including school and community gardens | MoA | 2021-2024 | Number of families benefiting from local community agriculture projects (schools and community gardens) |
| Action 3.2: Improve food production via the food industry and ensure food is of high nutritional value, safe and accessible to the people residing in Lebanon | | | |
| Activity | By whom | By when | Output indicator |
| 3.2.1. Develop appropriate food standards related to content of sugar, salt, and trans fatty acids in food (both local and imported) | Joint taskforce | 2021 | Minimum standards for sugar, salt, and trans fatty acid developed |
| 3.2.2. Develop a food taxation plan | Joint taskforce | 2023 | Plan for food taxation is developed |
| 3.2.3. Facilitate a national consensus meeting for <u>food fortification</u> and agree on next actions for food fortification | Joint taskforce | 2023 | National workshop on food fortification implemented |
| 3.2.4. Develop a policy on prevention of food waste and minimizing the environmental impact of food production | Joint taskforce | 2023 | Policy on prevention of food waste and the environmental impact of food production developed |
| 3.2.5. Enforce national standards to food imported to Lebanon including food content and labelling and encompassing fresh and processed food | MoE | 2021 | National trade and import policies reflect nutrition standards |
| 3.2.6. Implement an initiative for the support of the production of food that is of high nutrition value via different initiatives (small producers/women cooperatives – production of traditional Lebanese food) | MoA | 2022-2024 | Number of small initiatives supported |
| Action 3.3: Implement and enforce the food safety law and develop relevant legislative decrees | | | |
| Activity | By whom | By when | Output indicator |
| 3.3.1. Activate the Lebanese Food Safety Authority | Joint taskforce | 2023 | LFA activated (minutes of meetings) |

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| 3.3.2. Develop the necessary legislative decrees for the implementation of relevant food safety laws | MoA | 2024 | Legislative decrees on food safety developed |
| 3.3.3. Adopt technical regulations for standards related to food safety including identification of priority tests for each product | MoA, MoPH | 2022 | Technical regulations for food safety developed |
| 3.3.4. Monitor foods for infants and young children to ensure they are compliant with Codex Standards and the Lebanese Standards | MoPH, MoE | 2021 | Report on quality of foods for infants and young children |
| Action 3.4: Ensure emergency preparedness and contingency planning for nutrition and food security in humanitarian crisis or emergency situations | | | |
| Activity | By whom | By when | Output indicator |
| 3.4.1. Develop a food security contingency that includes provisions for ensuring food supply and stocks during emergencies | MoA, MoE, Food Security Sector (FSS) | 2021 | Food security contingency plan for food supply developed |
| 3.4.2. Develop guidance for food assistance including recommendations for the content of a food basket that abides by international standards for nutrition in emergency | MoA, MoE, FSS | 2021 | Guidance for food assistance in emergencies developed |

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| STRATEGY AREA 4: SAFE AND SUPPORTIVE ENVIRONMENT FOR NUTRITION AT ALL AGES (ENVIRONMENT) | | | |
| Action 4.1: Implement programs to ensure safe and supportive school nutrition and child environment | | | |
| Activity | By whom | By when | Output indicator |
| 4.1.1. Re-activate the national school-health committee | Joint taskforce (MoPH, MEHE) | 2021 | National school health committee activated (minutes of meeting) |
| 4.1.2. Develop a plan for the integration of nutrition and physical activity programs in the school curricula in line with the school nutrition policy analysis | Joint taskforce (MoPH, MEHE) | 2021-2024 | Plan for the integration of nutrition and physical activity in school curricula is developed |
| 4.1.3. Develop a policy for the control standards, availability, accessibility, affordability and marketing of food and drinks in the school food shops as well as shops near schools in line with the guidance on marketing of foods and non-alcoholic beverages to children (applicable to private and public schools) | Joint taskforce (MoPH, MEHE) | 2022 | Policy on food in schools is developed |

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| 4.1.4. Issue a law or relevant policies that prohibit street vendors and retail stores near schools. | Joint taskforce (MoPH, MEHE) | 2022 | Law/policy on street vendors near schools issued |
| Action 4.2: Implement the Infant and Young Child Feeding Policy including BFHI, community support, and limiting the marketing of Breast-Milk Substitutes | | | |
| Activity | By whom | By when | Output indicator |
| 4.2.1. Develop legislative decrees for the implementation and monitoring of Law 47/2008 | MoPH National IYCF Committee | 2021 | Legislative decrees for implementation and monitoring of Law 47/2008 are developed |
| 4.2.2. Develop relevant tools and policies for maternity protection in line with the IYCF action plan | MoPH National IYCF Committee | 2022 | Tools developed for maternity protection |
| 4.2.3. Expand the implementation of the Baby-Friendly Hospital Initiative as per the IYCF action plan | MoPH IYCF national committee | 2021-2024 | Number of active baby-friendly hospitals |
| 4.2.4. Enable IYCF support at the community level as per the IYCF action plan | MoPH IYCF national committee | 2021-2024 | Number of peer support groups activated |
| Action 4.3: Implement mandatory standards for ingredient listing, back-of-pack nutrient declarations and simplified front-of-pack labelling for all pre-packaged foods | | | |
| Activity | By whom | By when | Output indicator |
| 4.3.1. Develop relevant technical regulations necessary for the enforcement of the standards related to food labelling | Joint taskforce | 2021 | Technical regulations on food labelling developed |
| 4.3.2. Develop an SOP for the pre-approval for health claims used on food products | Joint taskforce | 2022 | SOP on pre-approval of health claims developed |
| Action 4.4: Implement social and behavioural change interventions for individuals of all ages in line with national guidelines | | | |
| Activity | By whom | By when | Output indicator |
| 4.4.1. Develop a nutrition social and behaviour change plan that responds to gaps in nutrition including NCD and IYCF | Joint taskforce | 2021-2025 | Social and behavioural change plan developed |
| 4.4.2. Social and behavioural change plan implemented and monitored on a yearly basis | Joint taskforce | 2021-2025 | Number of individuals targeted with SBC interventions |

STRATEGY AREA 5: SOCIAL PROTECTION FOR NUTRITION TO ENSURE ECONOMIC AVAILABILITY OF SAFE FOOD (SOCIAL PROTECTION)

Action 5.1: Support and expand the National Poverty Social Protection network and other social protection programs

| Activity | By whom | By when | Output indicator |
|---|------------------------------|----------------|--|
| 5.1.1. Integrate nutrition vulnerability criteria/indicators into existing national poverty protection program | Joint taskforce (MoPH, MoSA) | 2021 | National poverty social protection program includes nutrition indicators as vulnerability criteria |
| 5.1.2. Implement and expand on the school feeding and education program | Joint taskforce (MEHE, MoPH) | 2021-2025 | Number of children benefiting from school feeding program |
| 5.1.3. Implement livelihood initiatives such as community kitchens, cooperatives, and home gardens for the support of household food security | Joint taskforce | 2021-2025 | Number of households benefiting from livelihood initiatives |

Glossary of Terms

Double burden of malnutrition is characterized by the coexistence of under-nutrition along with overweight and obesity, or diet-related non-communicable diseases, within individuals, households and populations, and across the life course.

Foodborne illnesses refers to illness resulting from the consumption of food contaminated with bacteria, viruses, parasites or chemical substances

Food fortification refers to is the process of purposely increasing the content of essential vitamins, minerals, or trace elements in a food to improve the nutritional value of the food supply and ensure a public health benefit.

Food safety refers to appropriate handling, preparation, and storage of food to prevent incidence of foodborne disease.

Food security is when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.

Macronutrients refer to energy yielding nutrients including carbohydrates, proteins and fats required to maintain body functions.

Malnutrition refers to deficiencies, excesses or imbalances in an individual's intake of energy and/or nutrients which can lead to under-nutrition or overweight, obesity, and diet- related NCDs.

Mediterranean diet is a dietary plan based on traditional cuisine that emphasizes plant-based foods, olive oil, fish, poultry legumes and grains.

Micronutrients refer to vitamins and minerals needed in small amounts by the body.

Non-communicable diseases are mostly preventable diseases including cardiovascular diseases, diabetes mellitus, chronic respiratory diseases, cancer, mental health conditions, and musculoskeletal conditions which are linked by common risk factors and areas for intervention.

Nutrition transition refers to the study of the dynamic shifts in dietary intake, physical activity patterns, trends in obesity and diet-related non-communicable diseases.

Appendix A – Policies

| THEME | POLICY |
|--------------------------------|--|
| Agriculture and food supply | <ul style="list-style-type: none"> » Ministry of Agriculture Strategy 2015-2019 / Lebanon National Agriculture Strategy 2020- 2025 » Access to financed and subsidized credits for farmers and direct cost subsidy » Organic agriculture |
| Fortification | <ul style="list-style-type: none"> » Law N178/2011: Salt fortification law (Iodine) |
| Food labelling | <ul style="list-style-type: none"> » Multiple decrees for labelling and claims (Section 2 – Food systems) |
| Food Safety | <ul style="list-style-type: none"> » Food safety laws » Consumer protection law (NL656) |
| Infant and young child feeding | <ul style="list-style-type: none"> » Existing national policy on IYCF » Existing Law 47/2008 legislating the International Code of Marketing and Breast-Milk Substitute » Decision 1684/1: decision on the introduction of sugar and salt substitutes in child nutrition products |
| NCD | <ul style="list-style-type: none"> » Non-Communicable Diseases Prevention and Control Plan (NCD-PCP) Lebanon 2016-2020 » Mental Health and Substance Use Prevention, Promotion, and Treatment Strategy for Lebanon 2015-2020 |
| School nutrition | <ul style="list-style-type: none"> » Ministerial decision “Regulating the public school and high school canteen investments” |

Appendix B – Programs

| THEME | PROGRAM |
|---------------------------------------|---|
| Children under 5 | <ul style="list-style-type: none"> » Breastfeeding campaigns » Nutrition education in nurseries » National IYCF action plan » Growth monitoring in selected PHCs » Malnutrition screening and management at selected PHCs » Baby-friendly Hospital Initiative |
| Obesity prevention | <ul style="list-style-type: none"> » Obesity prevention campaign » A number of educational material and educational initiatives |
| School nutrition | <ul style="list-style-type: none"> » School feeding program (not national) » Ajyal salima program (not national) |
| Social protection and food assistance | <ul style="list-style-type: none"> » National Poverty Targeting Program » Food assistance program » Community kitchens |

