



# Regional Recommendations for the Treatment and Management of Adult Obesity in the Gulf & Lebanon

Authored by the World Obesity Federation and the  
Gulf & Lebanon Recommendations Expert Group.



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# Introduction

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It is increasingly being acknowledged that obesity is a chronic, progressive and relapsing disease that is the result of a combination of factors, including genetic susceptibility and environmental influences.<sup>1</sup> The Middle East has among the highest rates of adult obesity worldwide and it is also experiencing some of the biggest increases in childhood obesity, with no Gulf country predicted to have a greater than 20% chance of meeting the World Health Organization's target of no increase in childhood obesity prevalence by 2025.<sup>2,3</sup>

It is hoped that global recognition of obesity as a disease will not only improve understanding of the complexity of the condition, but also provide impetus for effective public health policy and intervention. Shifting the narrative away from the dominant belief that obesity is a matter of individual responsibility and just a risk factor for other non-communicable diseases should promote coordinated action between prevention and treatment and encourage those living with obesity to seek care.<sup>4</sup>

In the Gulf and Lebanon, however, the provision of obesity care has proved challenging. Challenges include insufficient reimbursement for treatment, a lack of available pharmaceutical options, heavy reliance on bariatric surgery, a lack of obesity education in medical school and beyond and, in some cases, the lack of formal guidelines and recommendations for the prevention, management and treatment of obesity. While it is noted that not all of these challenges are present in all countries, there have been recent calls to streamline approaches and share learning across the region to accelerate progress, and it is believed that the development of regional recommendations for obesity could lead to better coordinated efforts.

On December 6<sup>th</sup>, 2019, a group of clinical and public health obesity experts convened in Muscat, Oman to discuss the potential for, and content of, regional recommendations on obesity. Among the experts there were representatives of Bahrain, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia and the United Arab Emirates. The group was convened by the World Obesity Federation to share experiences of national initiatives, guidelines and recommendations (where they exist). The lack of comprehensive guidelines was noted as a major obstacle to the delivery of appropriate care, and the group called for the amendment of international guidelines to fit the regional context. It was also acknowledged that any recommendations need to be accompanied by clear implementation plans to facilitate their adoption.

The outcome of this meeting was a set of co-developed regional recommendations for the treatment and management of obesity. These recommendations lay out the ideal obesity care pathway for those living with obesity who may desire medical support to live healthier lives. The recommendations are followed by a synopsis of current activities in the represented countries to highlight progress to date and areas for improvement. On launching these recommendations, the World Obesity Federation intends to support countries in understanding how these recommendations can be locally implemented. While recommendations for the prevention of obesity do not feature heavily in this report, the importance of a unified approach to prevention efforts is recognised, appreciated and called for by this Expert Group and the World Obesity Federation.

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1 Bray, G., Kim, K. & Wilding, J., 2017. Obesity: a chronic relapsing progressive disease process. A position statement of the World Obesity Federation. *Obesity Reviews*, pp. 715-723.

2 World Obesity Federation, 2020. *Obesity: Missing the 2025 targets*, London: World Obesity Federation.

3 World Obesity Federation, 2019. *Atlas of Childhood Obesity*, London: World Obesity Federation.

4 Ralston, J. et al., 2018. Time for a new obesity narrative. *The Lancet*, pp. 1384-1386.

## Methods

World Obesity has recently established a presence in the Gulf region, hosting several events and supporting numerous projects. Much of this work has been guided by the 'Gulf and Lebanon Network Steering Committee', a group of obesity experts in the region. Recent work includes: a patient engagement programme, which resulted in the creation of an online patient portal to support people living with obesity in the Middle East; the hosting of a SCOPE School in Kuwait in April 2019 to support the training and development of healthcare professionals; and the co-hosting of a regional conference on obesity in women and children in Oman in December 2019.<sup>5</sup> Planning is also underway to host a virtual SCOPE School with a regional focus in October 2020.

The recognised desire and need for regional recommendations on obesity led World Obesity to convene a group of clinical and policy experts to pursue the development and adoption of the first known regional guidelines for obesity. It was anticipated that together, this group - the 'Gulf and Lebanon Recommendations Expert Group'- would discuss the needs of the region, any opportunities presented by regional recommendations and finally, negotiate content. The aim was to have a diverse membership with representatives from different countries and insights from both clinical and policy perspectives. Final membership of the Gulf and Lebanon Recommendations Expert Group, and co-authors of these recommendations, can be found in Appendix A. There is representation from most Arab states of the Arabian Gulf plus Lebanon: Bahrain, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

On December 6th, 2019, the Gulf and Lebanon Recommendations Expert Group and a select group of international experts<sup>6</sup> were convened in Muscat, Oman to discuss the potential for

and content of regional recommendations on obesity. The all-day meeting was professionally facilitated<sup>7</sup> and divided into two parts. The first half of the meeting was dedicated to establishing the regional context and understanding the challenges and benefits of recommendations. The second featured an interactive session to delve into the critical components of recommendations, specific recommendations and ideal next steps. All were encouraged to share their experiences of local and national initiatives, guidelines and recommendations (where they exist) throughout the day.

The outcome of this meeting was the collaborative development of the following regional recommendations for the treatment and management of adult obesity. This final version of the recommendations benefited from valuable feedback from a patient living with obesity.



<sup>5</sup> World Obesity Federation, 2020. [Online] Available at: <https://www.worldobesity.org/patient-portal>

<sup>6</sup> Including Donna Ryan, Caroline Apovian and Johanna Ralston

<sup>7</sup> By Lucy Keightley

# Recommendations

These recommendations outline the *ideal* clinical pathway for adults aged 18 and above living with obesity following the different stages of care. They advise on how to address obesity sensitively and effectively during medical appointments and offer advice on what interventions and human resources should be available at each level of care. It is recognised that these recommendations may need to be reviewed to fit national and local contexts.

## Recognition of obesity as a disease

An *ideal* prerequisite to the delivery of comprehensive, multi-disciplinary obesity care is the recognition of obesity as a chronic, progressive and relapsing disease by all parties. This includes governmental bodies, healthcare providers, insurers, healthcare professionals, patients and the general public. Obesity must be recognised as a disease that is characterised by the abnormal increase in body fat that has adverse health consequences, and not just because of its comorbidities. It is appreciated that this call may be met with resistance, but there is increasing evidence to support it.<sup>8</sup>

Widespread recognition of obesity as a disease should:

- Encourage the inclusion of obesity in all universal healthcare coverage discussions, with all obesity care and treatment options included within benefit care packages, public and private
- Underscore the need for basic obesity training for all healthcare professionals, as well as the option to choose obesity as a specialisation during medical training
- Result in earlier recognition and diagnosis of the disease

- Stimulate political and financial investment into obesity to increase the availability and affordability of all treatment options
- Reduce weight-related prejudice and stigma in clinical and public settings
- Promote innovation and reiterate the need for new, evidence-based interventions
- Reaffirm that obesity needs life-long, whole-system attention
- Emphasise the equal importance of both prevention and treatment efforts

## Edmonton Obesity Staging System

These recommendations use the **Edmonton Obesity Staging System (EOSS) (Table 1).**<sup>9</sup> While body mass index (BMI) is a measure of weight, the EOSS considers the severity of obesity based on a clinical assessment of weight-related health problems, mental health and quality of life. As a result, EOSS provides a framework for clinical decision-making, prioritisation and management and can roughly determine the healthcare level at which a patient may require treatment: primary, secondary, or tertiary care level.

**TABLE 1**

*Edmonton Obesity Staging System (Sharma & Kushner, 2009)*

<b>Stage 4</b>	End-stage
<b>Stage 3</b>	End-Organ Damage
<b>Stage 2</b>	Established Comorbidity
<b>Stage 1</b>	Pre-clinical Risk Factors
<b>Stage 0</b>	No Apparent Risk Factors

<sup>8</sup> Bray, G., Kim, K. & Wilding, J., 2017. Obesity: a chronic relapsing progressive disease process. A position statement of the World Obesity Federation. *Obesity Reviews*, pp. 715-723.

<sup>9</sup> Sharma, A. & Kushner, R., 2009. A Proposed Clinical Staging System for Obesity. *International Journal of Obesity*, pp. 289-295.

## '5 As Model' for Behaviour Change

An advised approach to assist patients with behaviour change throughout the course of obesity care is the 5 As Model for obesity management.<sup>10</sup> This model modifies the established 5 As framework that has been used by primary care physicians to encourage lifestyle changes based on behaviour change theories. The 5 steps of the 5 As Model are: **Ask, Assess, Advise, Agree and Assist.** These 5As adapted for obesity management can be found in **Figure 1.**

**FIGURE 1**

Modified from: Vallis, M., Piccinini-Vallis, H., Sharma, A. & Freedhoff, Y., 2013. Modified 5 As: Minimal intervention for obesity counseling in primary care. Canadian Family Physician, pp. 27-31.



This model is considered appealing because it is practical, easy-to-remember and feasible in busy clinical settings. It also encourages sensitive conversations, practical goal setting and shared decision making to help ensure patients have ownership of their obesity management.

The modified model of the original 5 As model for obesity management is recommended as it is more representative of the complex nature of assisting patients in behaviour change and it has greater emphasis on patient-centredness.

### Primary Care Level

#### (or 'general care')

It is noted that primary healthcare is not yet the common entry point into the health system in all countries and not all countries have an established primary-secondary-tertiary care system. Therefore, what is described here may be adapted and referred to as 'general care' to accommodate this.

### ENTRY INTO HEALTHCARE LEVEL

Those with **Stage 0** and **Stage 1** obesity should be treated and supported at primary care level. It is also appropriate that some prevention activities are performed at primary care level for those of a healthy weight and those who are trying to maintain their weight loss. The aim at primary care level is to have healthcare providers offering patients early and effective interventions to improve their health and quality of life. All efforts to address overweight and obesity should be health and wellbeing driven rather than BMI driven.

### SCREENING & DIAGNOSIS

In order to screen for obesity effectively, it is recommended that BMI is measured at all primary care appointments for regular monitoring. BMI measurements should become part of the routine medical care check-up and then, where possible, waist circumference should be measured regularly

<sup>10</sup> Sturgiss, E. & Van Weel, C., 2017. The 5 As framework for obesity management: Do we need a more intricate model?. Canadian Family Physician, pp. 506-508.

to assess risk. It is acknowledged, however, that there is some difficulty in measuring waist circumference due to the need for a private room and some reluctance from patients to undress. Regular monitoring of BMI, waist circumference and EOSS stage (when BMI is over 25kg/m<sup>2</sup>) should allow prompt identification of those in need of prevention advice and/or intervention. In the absence of reliable, evidence-based BMI and waist circumferences cut-offs for the region, the internationally recognised Caucasian classifications should be used (**Table 2**).<sup>11</sup>

**TABLE 2**

*World Health Organization Body Mass Index cut-offs for adults*

Body Mass Index (kg/m <sup>2</sup> )	Nutritional status
BMI Below 18.5	Underweight
18.5-24.9	Normal weight
25.0-29.9	Overweight/ Pre-obesity
30.0-34.9	Obesity class I
35.0-39.9	Obesity class II
Above 40	Obesity class III

Once an individual is identified to be overweight or above, the individual needs to be screened for comorbidities and risk factors using the EOSS. As the EOSS considers quality of life, mental health, and other weight-related health symptoms alongside weight, the patient must be fully evaluated. This includes a full physical examination, clinical laboratory tests and the thorough documentation of medical history. This baseline clinical assessment should include noting the status of obesity-related risk factors such as level of physical activity, diet history, sleep hygiene, circadian rhythm disruptions, stress management, medication history and smoking, and ideally an

assessment of the patient's expectations and targets. It is important that these are regularly monitored as this clinical assessment is critical for evaluating the severity of obesity.

## AVAILABLE INTERVENTIONS

Interventions at primary care level should primarily be low-level interventions that encourage and support lifestyle modification. This should include nutrition and physical activity prescriptions and other support to promote a healthy lifestyle. The ideal primary care 'care pathway' can be found in **Figure 2**.

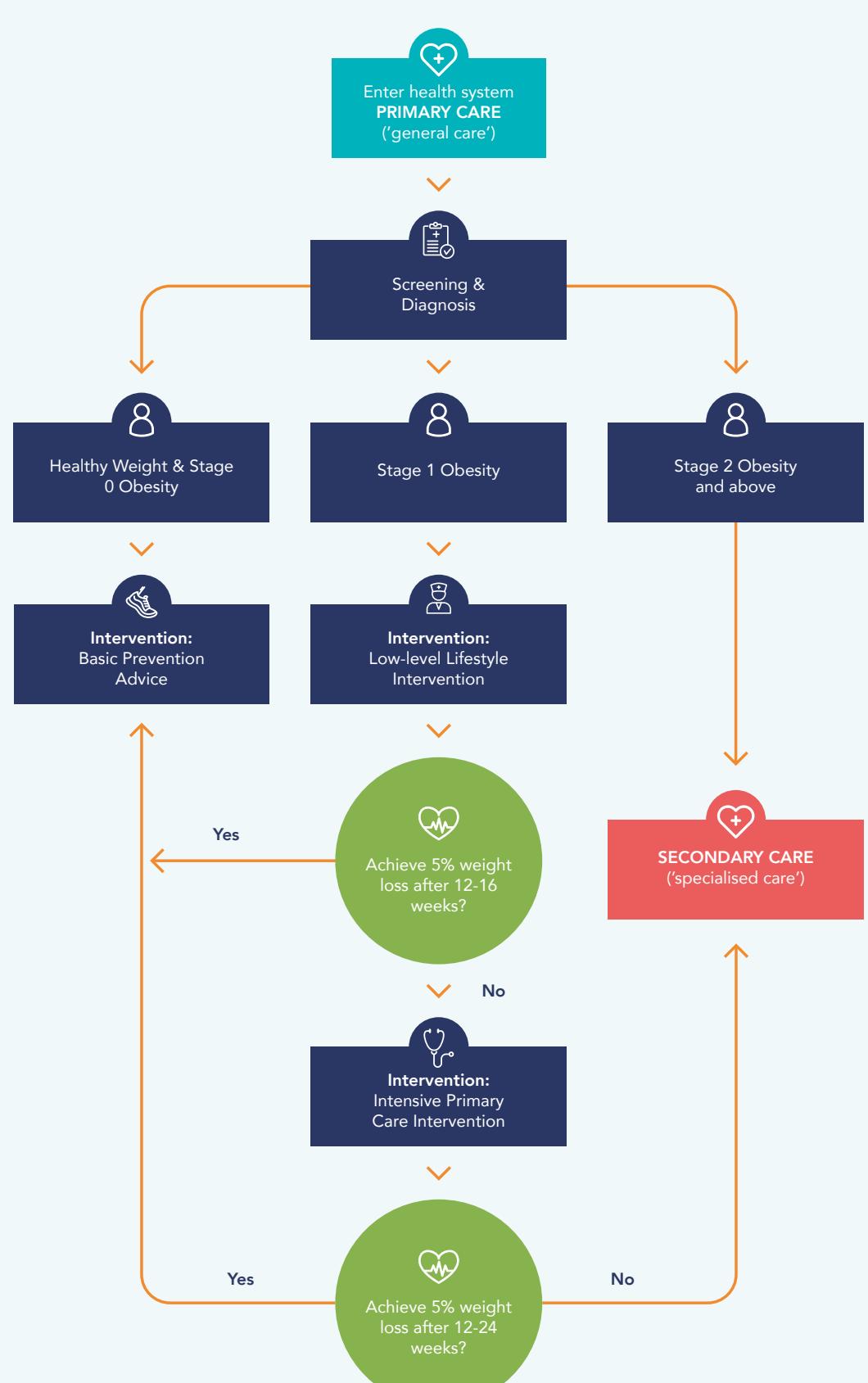
## BASIC PREVENTION ADVICE

Those at a healthy weight and with Stage 0 obesity should have access to basic preventative care and advice on exercise, diet and how to live a healthy lifestyle and maintain a healthy weight. It is imperative that any advice given is complementary to and consistent with any national public health campaigns and health promotion activities. This prevention advice should be readily available to all and should not be resource intensive.

One format that should be utilised to deliver this advice is the provision of a suite of pamphlets with user-friendly information. These pamphlets should be available in all primary care settings and should be handed out by professionals as well as being available in public spaces. Pamphlets that are recommended are (not an exhaustive list):

- User-friendly summaries of the national dietary guidelines
- User-friendly summaries of national physical activity guidelines
- Sleep hygiene advice
- Stress management and mental health advice

<sup>11</sup> The Expert Group recognises that the use of Caucasian cut offs is not ideal but notes that they are the most practical option currently available. The Group welcomes research on a more precise and appropriate classification for the regional population.

**FIGURE 2***Ideal primary care pathway*

## **LOW-LEVEL LIFESTYLE INTERVENTIONS**

Individuals living with Stage 1 obesity should have access to low-level lifestyle interventions. It is recommended that these interventions are delivered by trained 'obesity educators' in a format that resembles the 'Brief Lifestyle Counselling' arm of the POWER-UP model.<sup>12</sup> Here, individuals receive support for weight loss to improve the condition of their risk factors.

If 5% weight loss is not achieved after 12-16 weeks, individuals should be referred onto the second tier *within* primary care for more intensive interventions.

## **INTENSIVE PRIMARY CARE INTERVENTIONS**

More intensive interventions in primary care need to be delivered by healthcare professionals who have knowledge of why someone may not lose weight and improve health with lifestyle interventions alone. As a minimum, individuals should have access to dieticians and family physicians who have obesity-specific training.

Interventions at this stage may include special diets (e.g. very low-calorie diets, low-carbohydrate and low-glycaemic diets), intermittent fasting, obesity medication and more intensive approaches to improve stress management, sleep hygiene, physical activity etc. These interventions can be delivered in a format similar to the Diabetes Prevention Program (DPP) or the 'Enhanced Brief Lifestyle Counselling' arm of the POWER-UP model.<sup>13</sup>

For patients with diabetes specifically, the 'DiRECT' and 'DIADEM-I' trials are recommended models of care for intensive lifestyle intervention.<sup>14,15</sup>

See Appendix B for a list of obesity medications currently approved and available in each country - it is advised that healthcare professionals use whichever evidence-based obesity medications are available to them in the country in which they are practising.

If 5% weight loss is not achieved after 12-24 weeks, it is recommended that the individual is referred onto secondary care (or equivalent).

## **FREQUENCY OF VISITS**

The frequency of required visits at primary care level is dependent on obesity stage and where in the care pathway the individual is. It is also dependent on capacity within the healthcare system. Generally, patients at primary care level should see their family physician in the following manner as a minimum:

- Basic Prevention Advice: Ad hoc / At regular primary care visits
- Low-level Lifestyle Interventions: 3-Monthly visits
- Intensified Primary Care Interventions: Monthly visits

It is recommended that the patient sees other healthcare professionals as needed more regularly than their family physician. For example, dieticians and obesity educators may be seen between family physician visits on a weekly or fortnightly basis.

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12 Wadden, T.A., Volger, S., Tsai, A.G., Sarwer, D.B., Berkowitz, R.I., Diewald, L.K., Carvajal, R., Moran, C.H. and Vetter, M., 2013. Managing obesity in primary care practice: an overview with perspective from the POWER-UP study. *International journal of obesity*, 37(1), pp.S3-S11.

13 Diabetes Prevention Program (DPP) Research Group, 2002. The Diabetes Prevention Program (DPP): description of lifestyle intervention. *Diabetes care*, 25(12), pp.2165-2171.

14 Lean, M.E., Leslie, W.S., Barnes, A.C., Brosnahan, N., Thom, G., McCombie, L., Peters, C., Zhyzhneuskaya, S., Al-Mrabeh, A., Hollingsworth, K.G. and Rodrigues, A.M., 2019. Durability of a primary care-led weight-management intervention for remission of type 2 diabetes: 2-year results of the DiRECT open-label, cluster-randomised trial. *The Lancet Diabetes & Endocrinology*, 7(5), pp.344-355.

15 Taheri, S., Zaghloul, H., Chagoury, O., Elhadad, S., Ahmed, S.H., El Khatib, N., Abou Amona, R., El Nahas, K., Suleiman, N., Alnaama, A. and Al-Hamaq, A., 2020. Effect of intensive lifestyle intervention on bodyweight and glycaemia in early type 2 diabetes (DIADEM-I): an open-label, parallel-group, randomised controlled trial. *The Lancet Diabetes & Endocrinology*, 8(6), pp.477-489.

## HUMAN RESOURCES

At primary care level, a range of appropriately trained staff should be available to deliver the different interventions (**Table 3**).

Given the success of 'diabetes educators' in the region, it is recommended that an equivalent for obesity is pursued. Like diabetes educators, proposed '**obesity educators**' do not necessarily have to be physicians, but they do need to be appropriately trained in addressing the lifestyle approaches of addressing obesity. Potential professionals for being trained as obesity educators include medical assistants and nurses, but primary care clinics are advised to utilise the existing staff available. To mitigate the lack of resources at primary care level, these obesity educators would support primary care physicians (and other primary care staff) to manage patients who have Stage 0 and Stage 1 obesity. Where possible, the obesity educators should be the main point of contact with patients unless additional support is needed and/or the stage of obesity progresses. This task-shifting should help maximise available resources and improve the cost-effectiveness of delivered interventions.

**TABLE 3**

Healthcare professionals available at Primary Care

Available Healthcare Professional(s)	
<b>Basic Prevention Advice</b>	*Any/all healthcare professionals*
<b>Low-level Lifestyle Interventions</b>	'Obesity Educators' Family Physicians
<b>Intensive Primary Care Interventions</b>	'Obesity Educators' Family Physicians Dieticians and/or Nutritionist Exercise Therapist (and/or Physiotherapist)

In addition to support from healthcare professionals, it is also recommended that a **patient advocacy office** run by volunteer patients is made available at primary care level. The purpose of this office would be to act as an additional support group for those living with overweight and obesity. This office should be run by individuals with lived experience who have had success in their obesity treatment pathways.

## REFERRAL POLICY

If 5% weight loss is not achieved after 12-16 weeks of 'Low-level Lifestyle Interventions', individuals will be referred onto 'Intensive Primary Care Interventions'.

If an individual is unable to achieve 5% weight loss after 12-24 weeks of 'Intensive Primary Care Interventions' and/or they have Stage 2 obesity, it is recommended that they are referred onto Secondary Care.

## Secondary Care Level (or 'specialised care')

It is important to note that not all countries have an established secondary care level in their health system structure. Therefore, what is described here may be merged with and delivered in tertiary care instead, and 'specialised care' may be used as an alternative term to refer to this stage of care.<sup>16</sup>

## ENTRY INTO HEALTHCARE LEVEL

Secondary care treatment is typically for those who have not responded to treatment at primary care level. This is usually people with **Stage 1 obesity** who have failed to lose 5% of their initial body weight at primary care level and those with **Stage 2 obesity and above**.

<sup>16</sup> An example of secondary and tertiary care being merged to deliver obesity care is the "Bariatric Centers of Excellence" in the Kingdom of Saudi Arabia.

These patients typically suffer from comorbidities and so require more specialised and high-intensity care to support weight loss and improve health while managing their symptoms. These complex cases tend to suffer from poor mobility, uncontrolled diabetes, and ailments such as sleep apnoea.

### AVAILABLE INTERVENTIONS

Interventions at secondary care level should be more personalised and specialised. Patients should continue to receive interventions offered at primary care level, but more effort should be made to understand the personal drivers of obesity in the individual.

It is imperative at this stage that the multidisciplinary team re-screens the patient for comorbidities and acts accordingly. For example, it may be that the patient is referred onto sleep studies, their diabetes medications are changed, and their diet is reviewed. Where possible, health professionals should consider the use of medications that have a *favourable* effect on weight for the treatment of any comorbidities present.

At this stage it is also important that a psychological assessment is conducted to determine the appropriateness of behavioural therapy and to initiate behavioural treatment accordingly.

### FREQUENCY OF VISITS

The frequency of visits at secondary level is dependent on the severity of the comorbidities and the needs of the individual patient. Generally, patients should be seen every 1-3 months.

### HUMAN RESOURCES

Specialist interventions at secondary level should be delivered by a multidisciplinary team. It is imperative and best practice for this multidisciplinary team to communicate with each other to make joint decisions, as well as communicating with the patient. Suggested members of this team can be found in **Table 4**. All should be trained to understand and determine the root causes of failure to lose weight at the primary level care and to deliver a more intensive treatment approach.

**TABLE 4**

Members of Obesity Multidisciplinary team

Suggested members of multi-disciplinary team
Obesity medical specialist <sup>17</sup> (and/or Endocrinologist)
'Obesity Educators'
Dieticians and/or Nutritionist
Exercise Therapist (and/or Physiotherapist)
Behavioural therapist (Psychologist and/or Psychiatrist)
Obesity nurse
Bariatric surgeon
Patient coordinator

### REFERRAL POLICY

Referral onto bariatric and endoscopic surgery at tertiary care level should follow guidelines approved by the Ministry of Health and/or other regulatory authorities and will vary by country. BMI cut-off for referral is likely to depend on a country's capacity and resources.

<sup>17</sup> Note that the 'obesity specialist' professional may be different in each country. Ideally, it is one who has formally specialised in obesity treatment. In some places, this person may be an endocrinologist or other professional.

## Tertiary Care Level

### ENTRY INTO HEALTHCARE LEVEL

Tertiary care treatment is typically for those who have not responded to treatment in primary and secondary care. Generally, these people have **Stage 2 obesity and above** and suffer from obesity-related comorbidities such as type 2 diabetes or sleep apnoea. These individuals are typically being referred on for surgical treatment options.

### AVAILABLE INTERVENTIONS

The key treatment options to be offered at tertiary care, over and above what will have already been offered, are bariatric surgery and minimally invasive endoscopic procedures. There should be, however, a continuation and intensification of the medical treatment that was initiated earlier in the care pathway. This may include - but is not limited to - obesity medications, physical therapy and behavioural therapy.

Referral to surgery should be based on surgical guidelines that have been approved by the Ministry of Health (or other appropriate bodies), but it is essential that the decision to refer onto surgery is reviewed by the full multidisciplinary team mentioned previously. As with all treatment, it is essential that shared-decision making is practised with the patient to determine the appropriateness of surgery.

### FREQUENCY OF VISITS

It is recommended that the approved surgical guidelines pertinent to each country are followed.

## HUMAN RESOURCES

At Tertiary care level, there should be access to the same multidisciplinary team that was available at Secondary care level. For surgical procedures, additional healthcare professionals may be required as per usual practice (e.g. gastroenterologists, anaesthetists, cardiologists and pulmonologists).

### REFERRAL POLICY

When weight loss goals are achieved, patients should be referred back to primary care for maintenance and follow-up.

## Maintenance & Follow-up

All patients should receive maintenance and follow-up care in recognition of the fact that obesity is a chronic disease. Therefore, patients should be referred back to primary care where they have the support of obesity educators, nutritionists/dieticians, and other primary care staff after weight loss goals are achieved. This is particularly important for patients who undergo bariatric surgery, who should have long-term follow-up (mostly at primary care level). This circular pathway requires the development of a strong primary care system where patients can receive prevention advice, low-level interventions, and support for weight maintenance.

It is advised that primary and secondary care health professionals are able to review and prescribe medications that were prescribed at tertiary levels. This is to relieve pressure at tertiary care level and to allow improved continuity of care.

In the event of weight regain/disease relapse after surgery, it is recommended that patients are referred back to more specialist care in secondary or tertiary care. These patients should be investigated for causes of weight regain, and treatments should be offered accordingly. This treatment may include, but is not limited to, pharmacotherapy, endoscopy, and/or revisional surgery.

## FREQUENCY OF VISITS

Maintenance and follow-up care should involve 6-monthly follow ups at primary care level and yearly follow-ups with specialists in secondary/tertiary care (where appropriate). In recognition of obesity being a chronic disease, follow-up should be indefinite.

## HUMAN RESOURCES

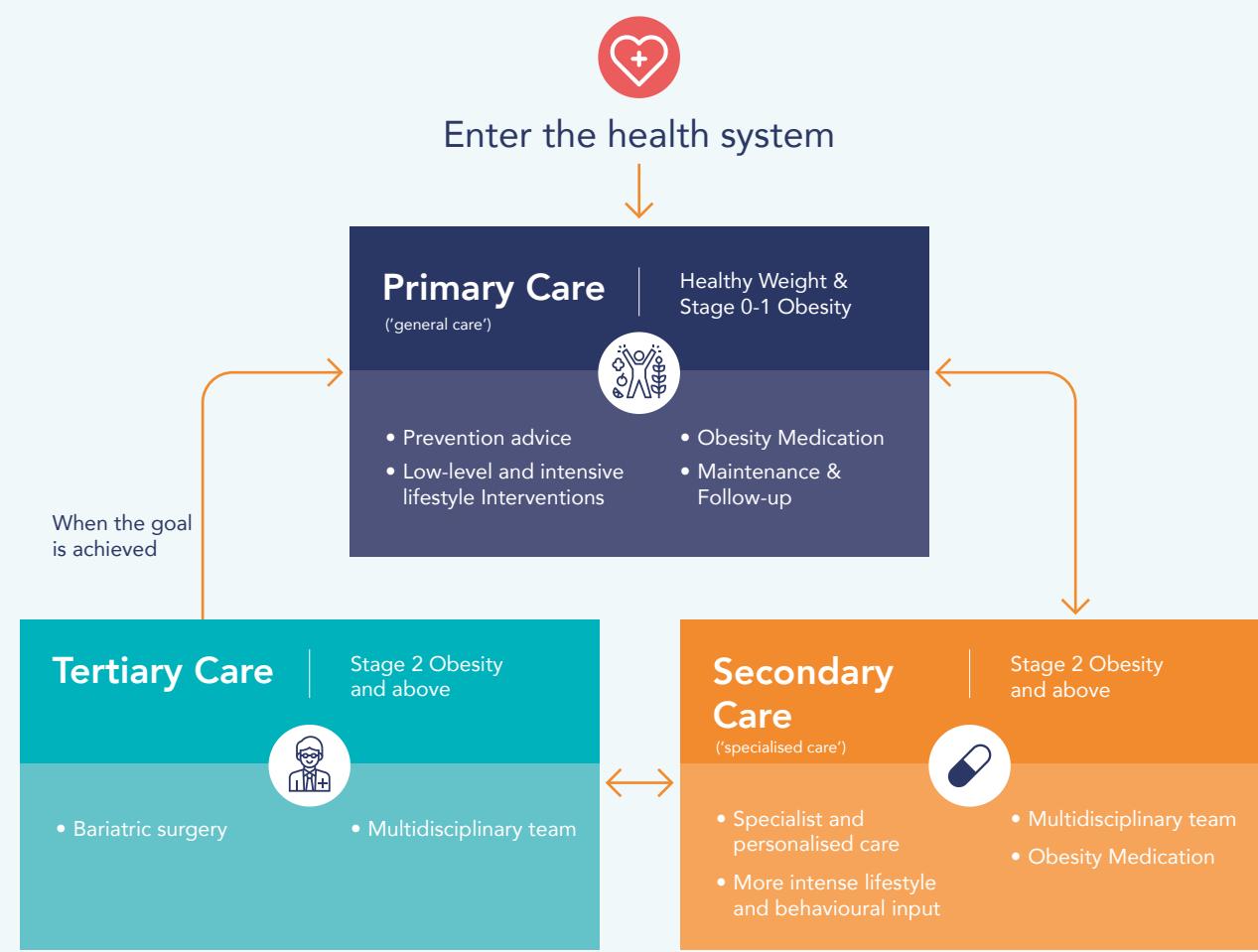
Maintenance and follow-up should be delivered mostly by primary care staff and occasionally, an obesity specialist.

## Pathway Diagram

This is the *ideal* clinical pathway for obesity, based on the above recommendations (**Figure 3**). It is noted, however, that all countries have slightly different healthcare system structures that may or may not accommodate this pathway. It is recommended that country-level discussions are held to tailor this pathway as needed. This may be particularly important in countries where there is a highly privatised system.

**FIGURE 3**

Ideal clinical care pathway for obesity



## Further Considerations

### IMPLEMENTATION AT THE NATIONAL LEVEL

These recommendations detail the *ideal* clinical pathway for obesity treatment and management in the Gulf and Lebanon. These recommendations may not be applicable to all existing healthcare systems in the region and so it is recommended that all countries have local workshops to tailor these recommendations based on national context.

It is advised that national discussions should consider (not exhaustive):

- Current healthcare coverage for all obesity treatments and the steps required to ensure full coverage (the 'reimbursement strategy')
- Availability of basic and specialist obesity training for health professionals
- The availability of anti-obesity medications in-country and how this can be improved
- How to improve the provision of obesity care at primary care level
- Provision of care in public vs private sector
- Existing in-country guidelines and what these recommendations mean for them

A country level 'implementation plan' or 'toolkit' should be developed based on these discussions to facilitate the adoption of these recommendations. This implementation plan should establish the steps required for these recommendations to be actionable in-country based on current activities and gaps. The Expert Group recommends that one component of this plan should be how best the recommendations can be disseminated so that people are aware of their presence.

These national-level discussions should be multisectoral and involve multiple stakeholders to ensure all perspectives, views and challenges are aired. Recommended stakeholders (not an exhaustive list) can be found in **Figure 4**.

### FIGURE 4

*Recommended stakeholders and their roles*

<b>GOVERNMENTS</b>	Policy formation
<b>EXISTING TASKFORCES</b>	Engage stakeholders across sectors
<b>MEDIA</b>	Communicate messages
<b>NON-GOVERNMENTAL ORGANISATIONS</b>	Health promotion and activity implementation
<b>HEALTHCARE PROVIDERS</b>	Practice healthcare pathways
<b>FUNDERS</b>	Fund programmes and research
<b>UNIVERSITIES AND GRADUATE MEDICAL INSTITUTIONS</b>	Contribute to the education of the obesity care workforce
<b>PATIENTS</b>	Share lived experience

## TRAINING

It is critical that the establishment of recommendations and guidelines is supplemented by adequate training for healthcare professionals to deliver the required standard of care. Training should be evidence-based, up-to-date and accessible (financially and geographically). Based on these recommendations, there is a clear need for basic obesity training for all health professionals and specialist obesity training for those who choose to specialise in obesity. It is paramount that all training is clearly aligned with country-specific guidelines and protocols. Ideally, there would be one unified training programme implemented across the region but as a minimum there should be a well-structured and nationally recognised certification that is recognised by each country's health authority.

The Expert Group acknowledges that SCOPE<sup>18</sup>, the only internationally recognised certification in obesity management, may be a suitable resource for the delivery of obesity training in some countries. World Obesity Federation, as conveners of this Expert Group and co-authors of these recommendations, recognises the conflicts of interest with this acknowledgement.

## BASIC OBESITY TRAINING

This training is recommended for all health professionals, particularly primary and secondary care professionals. This training should cover the basic science of obesity, its multiple causes, and the fundamentals of obesity prevention and management. On completion of this training, all health professionals should be able to give basic advice on achieving and maintaining a healthy weight and be competent in assessing, diagnosing and addressing obesity. They should also be comfortable recognising common comorbidities and complications.

In addition to the above, primary care staff should receive specialised training that emphasises the key role primary care plays in obesity prevention and early treatment. This is essential to prevent patients reaching secondary and tertiary level care without having had standard assessments and prior support. Additionally, it is crucial that primary care staff receive training on weight maintenance and relapse prevention so that they can support patients who are referred back from tertiary and secondary care.

## SPECIALIST OBESITY TRAINING

In addition to the 'basic' obesity training that should be provided to all healthcare professionals, there needs to be more specialist training available for:

- 'Obesity educators' and primary care staff who deliver the 'Intensive Primary Care Interventions'
- Professionals in secondary and tertiary care who choose to specialise in obesity (e.g. obesity medicine specialists and bariatric surgeons) and members of the obesity multidisciplinary team

It is crucial that all specialist obesity training covers: how and why the complexity of obesity as a disease may result in failure to lose weight at primary and secondary care, how to address comorbidities while seeking weight loss, and the importance of an obesity multidisciplinary team.

If it is pursued to have obesity medicine as a specialisation, it is recommended that a fellowship is established to provide the necessary training. Likewise, bariatric surgery fellowship programmes should be established to provide the surgical training required for obesity surgery. There are already a handful of such fellowships in the region, see **Table 5** for some examples. In addition to the examples given in **Table 5**, there are other proposed fellowships in the region, including obesity medicine fellowships in Saudi Arabia.

**TABLE 5**

Examples of existing training in region

Type of training	Training name/details	Length	Country
<b>Basic obesity training</b>	Fundamentals of bariatric and obesity management <i>An accredited educational programme provided for primary health care physicians</i>	1 day	Qatar
<b>Specialist obesity training</b>	Bariatric medicine fellowship programme	3 years	Qatar
	Bariatric surgery fellowship programme	2 years	Qatar
	Bariatric surgery programme	2 years	Saudi Arabia

**All training should be updated and delivered frequently to be reflective of new research and national reimbursement strategies.**

## Data & Research

The Expert Group recommends that efforts are made for improved data collection for research, monitoring and surveillance purposes. There is a pertinent need to better understand how best to address obesity in the region, and critical to this is more research and data collection specific to the regional population. At a minimum, there should be the national data collection of indicators related to obesity such as those in **Table 6** (not exhaustive). This data collection should be mandatory and when combined make up a national 'obesity registry'. Preferably, this data collection would be standardised across the region to allow the data to be collated in one unified regional registry.

**TABLE 6**

Possible components of an obesity registry

Possible indicators in an obesity registry
Body Mass Index (trend)
Waist circumference (where available)
Demographics
Socioeconomic status (e.g. income, education)
Medical history (e.g. eating disorders, psychological conditions, dietary habits)
Presence/absence (and measurements) of obesity-related comorbidities
Laboratory test results
Treatment (start and end dates)
Treatment outcomes
Obesity-related hospitalisations
Bariatric surgery history
Source of treatment funding
Name of centre and location

Practically, this standardised data collection would require the use of a single, specialised software to collect indicators in each national registry. This software should be universally used across the region so that data can be easily combined into the regional registry. It is noted that Kuwait already has a bariatric surgery registry - other countries may want to consider adopting a similar registry separately or in addition to an obesity registry.

An alternative to the development of an obesity registry is the systematic interrogation of electronic health records where they exist, and the publication of these findings.

### **FUTURE STANDARDS OF CARE**

As a supplement to clinical recommendations and guidelines, 'Standards of Care' detail what each healthcare provider needs to know to manage obesity. They are intended to provide practical guidance for clinical providers.

It is recommended that prescriptive standards of care are developed for the region to accompany these recommendations. Alternatively, standards of care could be developed at a national level - it is noted that Abu Dhabi, UAE have recently published a set of standards for obesity. Prior to the development of such standards, it is critical that the legality of any standards is considered. Additionally, any standards of care developed should be supported by an authoritative voice and be in line with any obesity training that is provided in-country.

### **Limitations**

This report is not intended to provide all-encompassing recommendations on how to address obesity in the region. While these recommendations outline the ideal clinical pathway and the level of provision at each stage of the healthcare system, it is noted that other important elements to addressing obesity are not covered.

Firstly, this report does not include recommendations on how obesity can be prevented in the region. The Expert Group stressed the need for coordinated and streamlined, clinical and preventative efforts, and the omission of prevention in this report does not reflect an underestimation of the important role prevention plays. Rather, it was agreed that a report on prevention required a more multi-sectoral and multi-stakeholder Expert Group. The Expert Group did, however, point to the existence of the recently published WHO Eastern Mediterranean 'Regional framework for action on obesity prevention 2019-2023' as a document that provides guidance to the region on best practice.<sup>19</sup>

Secondly, and relatedly, the important role that policy and regulatory action plays in addressing the obesity epidemic has not been discussed in this report. Policy asks such as marketing restrictions, labelling and fiscal measures are all critical components of the necessary whole systems approach to obesity, and so must be considered in national discussions.

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<sup>19</sup> World Health Organization. Regional Office for the Eastern Mediterranean. (2019). Regional framework for action on obesity prevention 2019 - 2023. World Health Organization. Regional Office for the Eastern Mediterranean. <https://apps.who.int/iris/handle/10665/325833>.

Thirdly, there are many subtypes of obesity that were not addressed in this report. Notably, child and adolescent obesity, maternal obesity and syndromic obesity. The Expert Group recommends that these and other subtypes are addressed when national recommendations are developed, updated and reviewed.

Finally, it is noted that there are many other factors that need to be considered in the treatment and management of obesity that have not been mentioned here. For example, the treatment of obesity in those living with disabilities and the role of weight-promoting medications.

## Conflict of interest

The development of these recommendations were supported by an unrestricted grant by Novo Nordisk. Novo Nordisk was not involved in and had no bearing on the development, revision or refinement of these final recommendations.



# Appendix A

## MEMBERS OF THE GULF & LEBANON RECOMMENDATIONS EXPERT GROUP

Country	Name
Bahrain	<p><b>Dalal Alromaihi, MD</b>            Consultant Endocrinologist            Program Director of Internal Medicine Training            Senior Clinical Lecturer RCSI-MUB            Head of Scientific Committee- Bahrain Diabetes Society</p> <p><b>Amer Alderazi, MBBCh, MSs, CABS</b>            Consultant General and Bariatric Surgeon at Salmaniya Medical Complex            Faculty of Department of Surgery in Arabian Gulf University            Board member of Gulf Obesity Surgery Society</p>
Kuwait	<p><b>Ebaa Al-Ozairi, BMSc (Hons), MD, ABPNS</b>            Consultant Endocrinologist and Nutritionist, Chief Medical Officer,            Dasman Diabetes Institute            Immediate Past President, American Association of Clinical            Endocrinologist – Gulf Chapter            Kuwait</p> <p><b>Manar AlAwadhi BSc, MSc, ScD, RD</b>            Assistant Professor at Faculty of Public Health Kuwait University            Affiliated with the Dasman Diabetes Institute</p>
Lebanon	<p><b>Maya Barake, MD, MSc</b>            Endocrinologist            SCOPE certified obesity specialist            Clemenceau Medical Center, Beirut            General Secretary, Lebanese Society of Endocrinology, Diabetes &amp; Lipids</p> <p><b>Akram Echtay, MD</b>            Endocrinologist            President Elect, Lebanese Society of Endocrinology, Diabetes &amp; Lipids            Director, Obesity National Campaign, Lebanese Ministry of Public Health</p>
Oman	<p><b>Noor Al Busaidi, MD</b>            Director of National Diabetes and Endocrine Centre            Senior Consultant Endocrinologist            President of Oman Diabetes Association</p> <p><b>Shadha S. Al-Raisi, MBBS, MSc PH</b>            Director of Non-communicable Disease, Ministry of Health, Oman</p>
Qatar	<p><b>Wahiba Mohamed Hamid Elhag, MD</b>            Senior consultant, Bariatric Medicine            Program director of the Bariatric Medicine fellowship            Hamad Medical Corporation</p>

Country	Name
<b>Qatar</b>	<p><b>Mohamed Aly Elsherif, MD/PhD</b>            Consultant Endocrinology and Obesity Medicine            Assistant Program Director of Bariatric Medicine Fellowship            Hamad Medical Corporation</p> <p><b>Badriya Suliman Al Ali, PhD</b>            Deputy Chief Quality Officer for Regulatory Affairs            Regulatory Accreditation and Compliance Services (RACS) Department            Hamad Medical Corporation</p>
<b>Saudi Arabia</b>	<p><b>Professor Mohammed Alnaami</b>            Professor of Surgery and Medical Education and Head of the Upper GI Surgery Unit            Department of Surgery. King Saud University and Affiliated Hospitals.            Head of the Scientific Committee and Saudi Arabian Society for Metabolic and            Bariatric Surgery (SASMBS)</p> <p><b>Nasreen Alfaris, MD, MPH</b>            Endocrinology, Diabetes, Metabolism, and Obesity Medicine            Program Director of the Obesity Medicine Fellowship            Chair of the Integrated Health section IFSO-MENAC            Obesity, Endocrine, and Metabolism Center (OEMC)            King Fahad Medical City (KFMC)            Riyadh, KSA</p>
<b>United Arab Emirates</b>	<p><b>Wael Almahmeed, MD</b>            Consultant Cardiologist            Cleveland Clinic Abu Dhabi</p> <p><b>Sara Suliman MD, CCST, FRCP, DPhil (Oxon)</b>            Consultant Endocrinologist, Diabetologist, and Bariatric Physician            Clinical Lead for the Genetics of Diabetes and Endocrine Disorders            Imperial College London Diabetes Centre (Abu Dhabi)            Honorary Senior Lecturer, Imperial University, London</p> <p><b>Omniyat Al Hajeri, MD</b>            Consultant Endocrinology, Diabetes and Metabolic Disease            Director of Community Health in Abu Dhabi Public Health Center</p> <p><b>Mohammed Al Hadad, MD, FRCS Glasg, FACS</b>            Head of Bariatric and General Surgery            Consultant Bariatric Surgeon            Healthpoint Hospital            Abu Dhabi, UAE</p>

## Appendix B

### APPROVED AND AVAILABLE ANTI-OBESITY MEDICATION BY COUNTRY

	Orlistat (Xenical)	Lorcaserin (Belviq)	Phentermine	Phentermine/ topiramate (Qsymia)	Naltrexone- bupropion (Contrave)	Liraglutide (Saxenda)
USA	✓	✗ <small>(Withdrawn from US market in Feb 2020)</small>	✓	✓	✓	✓
Bahrain	✓	✗	✗	✗	✗	✓
Kuwait	✓	✗	✗	✗	✗	✓
Lebanon	✓	✗	✗	✗	✓	✓
Oman	✗	✗	✗	✗	✗	✓
Qatar	✓ <small>(Withdrawn from US market in Feb 2020)</small>	✗	✗	✗ <small>(Approved but not available)</small>	✗ <small>(Approved but not available)</small>	✓
Saudi Arabia	✓	✗ <small>(only available in limited specialised centres)</small>	✓	✗	✗	✓
UAE	✓	✗	✗	✗	✓	✓

# Appendix C

## Country Summaries

# Bahrain

## Obesity Prevalence

			Overweight (Not including obesity)	Obesity
Measured <sup>1</sup>	Adult	Women	31.1% (2007)	40.3% (2007)
		Men	34.8% (2007)	32.3% (2007)
	Children	Girls	14.3% (2003-2005)	8.1% (2003-2005)
		Boys	12.6% (2003-2005)	7.4% (2003-2005)
			Overweight (Including obesity)	Obesity
World Health Organization <sup>2</sup>	Adult (Age Standardized)	Women	68.5% (2016)	36.8% (2016)
		Men	64.0% (2016)	25.5% (2016)
	Children (5-19 years, Crude)	Girls	33.8% (2016)	15.9% (2016)
		Boys	36.7% (2016)	18.5% (2016)

## Notable Plans & Strategies

- Comprehensive National Action Plan for Prevention and Management of Overweight and Obesity
- National Strategy for Control and Prevention of Non-communicable Diseases in Kingdom of Bahrain 2014 – 2025
- National Plan of Action for Nutrition

## Existing Guidelines & Recommendations

There are known to be *draft* obesity recommendations for the treatment of obesity that are not yet published.<sup>3</sup>

There is reference to the '**National Evidence-based clinical Guidelines for Assessing and Managing Overweight and Obesity**' in the Ministry of Health document for the management and prevention of obesity in nutrition clinics.<sup>4</sup> These guidelines are reported to cover assessment and management of obesity, including lifestyle modification, behavioural therapy and anti-obesity medication. It does not appear that these guidelines have been widely shared and disseminated.

1 World Obesity Federation 'Global Obesity Observatory' (Accessed 12.08.20)

2 World Health Organization 'The Global Health Observatory' [https://www.who.int/gho/ncd/risk\\_factors/overweight/en/](https://www.who.int/gho/ncd/risk_factors/overweight/en/) (Accessed 12.08.20)

3 Correct as of September 2020

4 [https://extranet.who.int/ncdccs/Data/BHR\\_B10\\_nutrition%20clinics.pdf](https://extranet.who.int/ncdccs/Data/BHR_B10_nutrition%20clinics.pdf) (Accessed 09.03.2020)



A nutrition unit published the '**Clinical Guidelines on Evaluation and Management of Paediatric Overweight and Obesity**' in 2012.

## Notable Programmes & Initiatives

- 100% and 50% valued-added tax rate on energy drinks and soft drinks respectively<sup>5</sup>
- Voluntary menu labelling recommendations for fast food chain restaurants<sup>6</sup>
- Mandatory list of permitted and prohibited foods in public schools<sup>7</sup>
- Nutrition clinics for the management and prevention of obesity<sup>8</sup>
- Since 2010, the Ministry of Health has recommended the serving sizes of 100% fruit juices to fast food chain restaurants<sup>9</sup>
- Non-communicable disease clinics integrated into the primary care system<sup>10</sup>

## Key Stakeholders

- Ministry of Health
- Bahrain Diabetes Society
- King Hamad University Hospital
- Bahrain Medical Society
- Bahrain Pharmaceutical Society

## Availability of anti-obesity medication

	Orlistat (Xenical)	Lorcaserin (Belviq)	Phentermine	Phentermine/ topiramate (Qsymia)	Naltrexone- bupropion (Contrave)	Liraglutide (Saxenda)
Approved and available in Bahrain	✓	✗	✗	✗	✗	✓

5 NOURISHING Framework, World Cancer Research Fund (Accessed 17.08.20)

6 NOURISHING Framework, World Cancer Research Fund (Accessed 17.08.20)

7 NOURISHING Framework, World Cancer Research Fund (Accessed 17.08.20)

8 <https://www.moh.gov.bh/Services/Nutrition> (Accessed 17.08.20)

9 NOURISHING Framework, World Cancer Research Fund (Accessed 17.08.20)

10 <https://www.moh.gov.bh/Services/NonCommunicableDiseases> (Accessed 17.08.20)

# Kuwait

## Obesity Prevalence

			Overweight (Not including obesity)	Obesity
Measured <sup>1</sup>	Adult	Women	32.1% (2014)	44.0% (2014)
		Men	42.1% (2014)	36.3% (2014)
	Children	Girls	22.1% (2013-2014)	21.1% (2013-2014)
		Boys	24.8% (2013-2014)	28.6% (2013-2014)
			Overweight (Including obesity)	Obesity
World Health Organization <sup>2</sup>	Adult (Age Standardized)	Women	75.1% (2016)	45.6% (2016)
		Men	72.4% (2016)	33.3% (2016)
	Children (5-19 years, Crude)	Girls	39.3% (2016)	20.3% (2016)
		Boys	44.8% (2016)	25.3% (2016)

## Notable Plans & Strategies

- Kuwaiti Obesity Strategy
- National strategy prevention and management of chronic non-communicable diseases (2017-2025)

## Existing Guidelines & Recommendations

Kuwait has no nationally recognised guidelines.

## Notable Programmes & Initiatives

- Established Obesity clinics<sup>3</sup>
- 'Kuwait Obesity Academy' - SCOPE certified course for health professionals<sup>4</sup>
- The Ministries of Health and Education have banned fizzy drinks, crisps and chocolates on schools' premises<sup>5</sup>
- Public Authority for Food and Nutrition (PAFN) aim to reduce the levels of sugar and salt in juices by 6-17% and snacks by 3-45%, in addition to implementing intensive and targeted community awareness campaigns<sup>6</sup>

1 World Obesity Federation 'Global Obesity Observatory' (Accessed 12.08.20)

2 World Health Organization 'The Global Health Observatory' [https://www.who.int/gho/ncd/risk\\_factors/overweight/en/](https://www.who.int/gho/ncd/risk_factors/overweight/en/) (Accessed 12.08.20)

3 Confronting Obesity in Kuwait. The Economist Intelligence Unit. 2017

4 <https://www.dasmaninstitute.org/ddi-starts-kuwait-obesity-academy/> (Accessed 20.08.20)

5 NOURISHING Framework, World Cancer Research Fund (Accessed 20.08.20)

6 Kuwait Voluntary National Review 2019. UN High-level Political Forum on Sustainable Development [https://sustainabledevelopment.un.org/content/documents/23384Kuwait\\_VNR\\_FINAL.PDF](https://sustainabledevelopment.un.org/content/documents/23384Kuwait_VNR_FINAL.PDF) (Accessed 23.08.20)



## Key Stakeholders

- Kuwait Obesity Association
- Kuwait Diabetes Society
- Kuwait Laparoscopic and Obesity Surgical Society (KLOSS)
- Kuwait Cardiac Society
- Kuwait Society of Endocrinology
- Kuwait Salt and Fat Intake Reduction Task Force (SIRTF)
- Kuwait Medical Association
- Kuwaiti Public Health Society
- Dasman Diabetes Institute
- High level multi sectorial committee for the prevention and control of obesity
- Kuwait Association of Surgeons
- Public Authority for Food and Nutrition (PAFN)

## Availability of anti-obesity medication

	Orlistat (Xenical)	Lorcaserin (Belviq)	Phentermine	Phentermine/ topiramate (Qsymia)	Naltrexone- bupropion (Contrave)	Liraglutide (Saxenda)
Approved and available in Kuwait	✓	✗	✗	✗	✗	✓

# Lebanon

## Obesity Prevalence

			Overweight (Not including obesity)	Obesity
Measured <sup>1</sup>	Adult	Women	31.4% (2016-2017)	27.5% (2016-2017)
		Men	44.7% (2016-2017)	26.6% (2016-2017)
	Children	Girls	19.7% (2009)	6.9% (2009)
		Boys	23.0% (2009)	15.5% (2009)
			Overweight (Including obesity)	Obesity
World Health Organization <sup>2</sup>	Adult (Age Standardized)	Women	69.1% (2016)	37.0% (2016)
		Men	66.9% (2016)	27.4% (2016)
	Children (5-19 years, Crude)	Girls	29.9% (2016)	11.4% (2016)
		Boys	35.9% (2016)	16.3% (2016)

## Notable Plans & Strategies

- Non-communicable Disease Prevention and Control Plan (NCD-PCP) for Lebanon 2015-2020
- Ministry of Public Health Strategy: 'Health 2025'

## Existing Guidelines & Recommendations

There are no official obesity guidelines or recommendations. However, the first consensus document for the management of obesity in Lebanon is due to be published in 2020.

## Notable Programmes & Initiatives

1. 2019 World Obesity Day celebrated with a scientific conference fully dedicated to obesity
2. National Awareness Campaign on Obesity aimed at patients and people living with obesity launched in 2019<sup>3</sup>
3. 2018 National Childhood obesity awareness campaign – the Ministry of Health provided 10 health tips to inform parents on how to improve their children's lifestyle<sup>4</sup>
4. Health-E-PALS school-based intervention initiated in 2014 that aims to change eating and physical activity habits<sup>5</sup>

1 World Obesity Federation 'Global Obesity Observatory' (Accessed 12.08.20)

2 World Health Organization 'The Global Health Observatory' [https://www.who.int/gho/ncd/risk\\_factors/overweight/en/](https://www.who.int/gho/ncd/risk_factors/overweight/en/) (Accessed 12.08.20)

3 <https://www.moph.gov.lb/en/view/23428/launching-of-the-national-awareness-campaign-on-obesity-2019> (Accessed 24.08.20)

4 <https://www.moph.gov.lb/en/Pages/11/18616/the-national-children-obesity-awareness-campaign-2018> (Accessed 24.08.20)

5 Habib-Mourad et al. 2014. Promoting healthy eating and physical activity among school children: findings from Health-E-PALS, the first pilot intervention from Lebanon. BMC Public Health. 14(940). doi: 10.1186/1471-2458-14-940.



## Key Stakeholders

1. The Lebanese Society of Endocrinology, Diabetes & Lipids
2. The Ministry of Public Health
3. The Lebanese Society of Bariatric Surgery
4. Lebanese Society for General Surgery
5. Lebanese Academy for Nutrition and Dietetics
6. The Lebanese association of Physical Trainers and/or Physiotherapists
7. Ministry of Education

## Availability of anti-obesity medication

	Orlistat (Xenical)	Lorcaserin (Belviq)	Phentermine	Phentermine/ topiramate (Qsymia)	Naltrexone- bupropion (Contrave)	Liraglutide (Saxenda)
Approved and available in Lebanon	✓	✗	✗	✗	✓	✓

# Oman

## Obesity Prevalence

			Overweight (Not including obesity)	Obesity
Measured <sup>1</sup>	Adult	Women	30.0% (2017)	39.3% (2017)
		Men	40.1% (2017)	23.2 % (2017)
	Children	Girls	-	-
		Boys	-	-
			Overweight (Including obesity)	Obesity
World Health Organization <sup>2</sup>	Adult (Age Standardized)	Women	60.6% (2016)	33.7% (2016)
		Men	65.7% (2016)	22.9% (2016)
	Children (5-19 years, Crude)	Girls	30.4% (2016)	13.6% (2016)
		Boys	33.9% (2016)	16% (2016)

## Notable Plans & Strategies

- National Policy and Multisectoral Plan for Prevention and Control of Non-communicable Diseases
- National Nutrition Strategy 2014 – 2050
- Health Vision 2050

## Existing Guidelines & Recommendations

There are no known obesity guidelines or recommendations present in Oman.

1 World Obesity Federation 'Global Obesity Observatory' (Accessed 12.08.20)

2 World Health Organization 'The Global Health Observatory' [https://www.who.int/gho/ncd/risk\\_factors/overweight/en/](https://www.who.int/gho/ncd/risk_factors/overweight/en/) (Accessed 12.08.20)



## Notable Programmes & Initiatives

1. National NCD screening programme for those who have never been diagnosed with diabetes or hypertension or chronic kidney diseases and are aged 40 and over. The screening targets 5 common conditions - diabetes, hypertension, chronic renal impairment, obesity, and hypercholesterolemia<sup>3</sup>
2. Ad Valorem tax on sweetened beverages<sup>4</sup>
3. Several 'healthy city' and 'healthy village' initiatives<sup>5</sup>
4. Health Promoting Schools Initiative (HPSI)<sup>6</sup>
5. Annual 'big winner campaign'
6. Adopts a 'Health in All Policies' strategy<sup>7</sup>
7. Training of multidisciplinary teams to address obesity by the National Diabetes and Endocrine Center

## Key Stakeholders

1. Ministry of Health
2. All relevant Ministry of Health departments  
*E.g. Department of non-communicable disease, nutrition, school health etc.*
3. National Diabetes and Endocrine Center
4. Oman Diabetes Association
5. Sultan Qaboos University
6. Oman Diabetes Association
7. Oman Cancer association
8. Oman Heart Association
9. Oman Medical Association

## Availability of anti-obesity medication

	Orlistat (Xenical)	Lorcaserin (Belviq)	Phentermine	Phentermine/ topiramate (Qsymia)	Naltrexone- bupropion (Contrave)	Liraglutide (Saxenda)
Approved and available in Oman	✗	✗	✗	✗	✗	✓

3 [https://www.moh.gov.om/documents/272928/1314763/Operational+and+management+guidelines+for+the\\_National\\_NCD\\_screening\\_program.pdf/d50b3a2d-5861-481f-9b78-fc499152f13d#:~:text=The%20national%20non%2Dcommunicable%20diseases%20screening%20program%20provides%20a%20screening,hypertension%20or%20chronic%20kidney%20disease.](https://www.moh.gov.om/documents/272928/1314763/Operational+and+management+guidelines+for+the_National_NCD_screening_program.pdf/d50b3a2d-5861-481f-9b78-fc499152f13d#:~:text=The%20national%20non%2Dcommunicable%20diseases%20screening%20program%20provides%20a%20screening,hypertension%20or%20chronic%20kidney%20disease.) (Accessed 24.08.20)

4 <https://www.obesityevidencehub.org.au/collections/prevention/countries-that-have-implemented-taxes-on-sugar-sweetened-beverages-ssbs> (Accessed 24.08.20)

5 <https://www.moh.gov.om/documents/16506/119833/Health+Vision+2050/7b6f40f3-8f93-4397-9fde-34e04026b829> (Accessed 24.08.2020)

6 <https://apps.who.int/iris/handle/10665/120000> (Accessed 24.08.20)

7 Samara, A., Andersen, P. T., & Aro, A. R. (2019). Health Promotion and Obesity in the Arab Gulf States: Challenges and Good Practices. *Journal of obesity*, 2019, 4756260. <https://doi.org/10.1155/2019/4756260>

# Qatar

## Obesity Prevalence

			Overweight (Not including obesity)	Obesity
Measured <sup>1</sup>	Adult	Women	25.1% (2012)	43.2% (2012)
		Men	32.3% (2012)	39.5% (2012)
	Children	Girls	22.1% (2015-2016)	18.3% (2015-2016)
		Boys	20.3% (2015-2016)	24.6 % (2015-2016)
			Overweight (Including obesity)	Obesity
World Health Organization <sup>2</sup>	Adult (Age Standardized)	Women	73.3% (2016)	43.1% (2016)
		Men	71% (2016)	32.5% (2016)
	Children (5-19 years, Crude)	Girls	35.4% (2016)	16.3% (2016)
		Boys	41.3% (2016)	22% (2016)

## Notable Plans & Strategies

- National Health Strategy 2018-2022
- Qatar Public Health Strategy 2017-2022

## Existing Guidelines & Recommendations

The Ministry of Public Health published the '**National Clinical Guideline: The Management of Obesity in Adults**' in January 2020.

1 World Obesity Federation 'Global Obesity Observatory' (Accessed 12.08.20)

2 World Health Organization 'The Global Health Observatory' [https://www.who.int/gho/ncd/risk\\_factors/overweight/en/](https://www.who.int/gho/ncd/risk_factors/overweight/en/) (Accessed 12.08.20)



## Notable Programmes & Initiatives

1. 100% and 50% excise tax on energy drinks and carbonated drinks respectively<sup>3</sup>
2. National Sports Day - a national holiday that aims to promote a healthy lifestyle<sup>4</sup>
3. Soft drinks and junk food are banned in hospitals<sup>5</sup>
4. Recognises and follows 'health in all policies' approach<sup>6</sup>
5. A diabetes prevention camp for teenagers living with obesity organised by the Qatar diabetes association<sup>7</sup>
6. 'Your Health First' - Sahtak Awalan campaign<sup>8</sup>
7. Active Qatar Campaign<sup>9</sup>

## Key Stakeholders

1. Hamad Medical Corporation
2. National Obesity Treatment Center (Qatar Metabolic Institute)
3. Qatar Diabetes Association
4. Ministry of Public Health
5. Primary Health Care Corporation

## Availability of anti-obesity medication

	Orlistat (Xenical)	Lorcaserin (Belviq)	Phentermine	Phentermine/ topiramate (Qsymia)	Naltrexone- bupropion (Contrave)	Liraglutide (Saxenda)
Approved and available in <b>Qatar</b>	✓	✗ (Withdrawn from US market in Feb 2020)	✗	✗ (Approved but not available)	✗ (Approved but not available)	✓

3 <https://gta.gov.qa/en/excise-tax/> (Accessed 18.08.20)

4 <https://portal.www.gov.qa/wps/portal/topics/Tourism+Sports+and+Recreation/Sports/nationalsportsday> (Accessed 18.08.20)

5 Samara, A., Andersen, P.T. and Aro, A.R., 2019. Health promotion and obesity in the Arab Gulf states: Challenges and good practices. *Journal of obesity*, 2019.

6 Samara, A., Andersen, P.T. and Aro, A.R., 2019. Health promotion and obesity in the Arab Gulf states: Challenges and good practices. *Journal of obesity*, 2019.

7 <https://qda.org.qa/at-risk-camps/> (Accessed 18.08.20)

8 <https://sahtakawalan.com/> (Accessed 18.08.20)

9 <https://portal.www.gov.qa/wps/portal/topics/Tourism+Sports+and+Recreation/Sports/sportsandathleticsstrategy> (Accessed 18.08.20)

# Kingdom of Saudi Arabia

## Obesity Prevalence

			Overweight (Not including obesity)	Obesity
Measured <sup>1</sup>	Adult	Women	28% (2013)	33.5% (2013)
		Men	33.4% (2013)	24.1% (2013)
	Children	Girls	14.2% (2015)	18% (2015)
		Boys	12% (2015)	18.4% (2015)

			Overweight (Including obesity)	Obesity
World Health Organization <sup>2</sup>	Adult (Age Standardized)	Women	71.8% (2016)	42.3% (2016)
		Men	68.3% (2016)	30.8% (2016)
	(5-19 years, Crude)	Girls	32.3% (2016)	14.4% (2016)
		Boys	38.3% (2016)	19.8% (2016)

## Notable Plans & Strategies

- National Executive Plan for NCDs 2014 – 2025
- National Strategy for diet and physical activity for the years 2014- 2025
- Obesity Control & Prevention Strategy 2030

**The Saudi Guidelines on the Prevention and Management of Obesity** was published in 2016 by the Ministry of Health, endorsed by the Saudi Arabian Society of Metabolic and Bariatric Surgery.<sup>4</sup> **The Saudi Arabian Society for Metabolic and Bariatric Surgery** produced guidelines for bariatric and metabolic surgery in 2019.<sup>5</sup>

## Existing Guidelines & Recommendations

'Clinical Practice Guidelines for the management of overweight and obesity in adults' were developed by an expert panel assembled by the Saudi Ministry of Health in 2016.<sup>3</sup>

1 World Obesity Federation 'Global Obesity Observatory' (Accessed 12.08.20)

2 World Health Organization 'The Global Health Observatory' [https://www.who.int/gho/ncd/risk\\_factors/overweight/en/](https://www.who.int/gho/ncd/risk_factors/overweight/en/) (Accessed 12.08.20)

3 Alfadda, A.A., Al-Dhwayan, M.M., Alharbi, A.A., Al Khudhair, B.K., Al Nozha, O.M., Al-Qahtani, N.M., Alzahrani, S.H., Bardisi, W.M., Sallam, R.M., Riva, J.J. and Brožek, J.L., 2016. The Saudi clinical practice guideline for the management of overweight and obesity in adults. Saudi medical journal, 37(10), p.1151.

4 <https://www.moh.gov.sa/Ministry/About/Health%20Policies/008.pdf> (Accessed 17.08.20)

5 <http://www.sasmbs.net/pdfs/sasmbs-2019-guidelines.pdf> (Accessed 18.08.20)



## Notable Programmes & Initiatives

1. 'Obesity Control Program'
2. 100% and 50% tax rate on energy drinks soft drinks respectively<sup>6</sup>
3. Mandatory display of calories on restaurant menus<sup>7</sup>
4. Under the 'Regulations of Health Conditions for School Canteens' developed by the Ministry of Education there are several foods banned in school canteens, including sweetened drinks, confectionaries, and fried foods<sup>8</sup>
5. Obesity medicine fellowship - training for health professionals
6. 'Rashaqah' programme, a school-based obesity control program that aims to reduce prevalence in students through increased awareness and supportive environments

## Key Stakeholders

1. Kayl Association for obesity
2. Saudi Arabian Society for Metabolic and Bariatric Surgery
3. King Faisal Specialist Hospital Research Center
4. King Abdulaziz University
5. Saudi Society for Clinical Nutrition
6. Saudi Society for Food and Nutrition
7. Saudi Dietetic Association
8. Saudi Diabetes and Endocrine Association
9. Saudi Physical Therapy Association
10. Saudi Heart Association
11. Saudi Diabetes Society
12. Saudi Charitable Association of Diabetes
13. King Saud University
14. Saudi Centre for Disease Prevention and Control (Weqaya)
15. Ministry of Health
16. Saudi Health Council
17. Saudi Food and Drug Authority
18. Saudi Endocrine Society

## Availability of anti-obesity medication

	Orlistat (Xenical)	Lorcaserin (Belviq)	Phentermine	Phentermine/ topiramate (Qsymia)	Naltrexone- bupropion (Contrave)	Liraglutide (Saxenda)
Approved and available in Saudi Arabia	✓	✗	✓ <small>(only available in limited specialised centres)</small>	✗	✗	✓

6 NOURISHING Framework, World Cancer Research Fund (Accessed 17.08.20)

7 Health Promotion and Obesity in the Arab Gulf States: Challenges and Good Practices

8 <http://www.emro.who.int/emhj-volume-25-2019/volume-25-issue-4/compliance-with-school-nutrition-policy-in-saudi-arabia-a-quantitative-study.html>(Accessed 18.08.2020)

# United Arab Emirates

## Obesity Prevalence

			Overweight (Not including obesity)	Obesity
Measured <sup>1</sup>	Adult	Women	34.3% (2017-2018)	30.6% (2017-2018)
		Men	45.7% (2017-2018)	25.1% (2017-2018)
	Children	Girls	21% (2014-2015)	17.3% (2014-2015)
		Boys	36.7% (2014-2015)	6.4% (2014-2015)
			Overweight (Including obesity)	Obesity
World Health Organization <sup>2</sup>	Adult (Age Standardized)	Women	71.1% (2016)	41% (2016)
		Men	66.3% (2016)	27.5% (2016)
	Children (5-19 years, Crude)	Girls	33.7% (2016)	15.4% (2016)
		Boys	37.7% (2016)	19.1% (2016)

## Notable Plans & Strategies

- National Plan for Prevention and Response for Non-communicable Diseases 2017-2021
- National Nutrition Plan
- National Agenda 2021
- National Strategy for Wellbeing 2031
- Ending Childhood Obesity – a call to action
- National Plan to Combat Childhood Obesity United Arab Emirates

## Existing Guidelines & Recommendations

The Department of Health Abu Dhabi published a '**Standard for Obesity and Weight Diagnosis, Pharmacological and Surgical Management Interventions**' in 2018.

'**Clinical Practice Recommendations for the Management of Obesity in the United Arab Emirates**' was published in 2018 by a multi-disciplinary panel of international and regional experts who treat patients living with overweight or obesity.<sup>3</sup> Note that this is not a nationally adopted recommendation as it is not supported by any of the local regulatory bodies.

1 World Obesity Federation 'Global Obesity Observatory' (Accessed 12.08.20)

2 World Health Organization 'The Global Health Observatory' [https://www.who.int/gho/ncd/risk\\_factors/overweight/en/](https://www.who.int/gho/ncd/risk_factors/overweight/en/) (Accessed 12.08.20)

3 Abusnana, S., Fargaly, M., Alfardan, S.H., Al Hammadi, F.H., Bashier, A., Kaddaha, G., McGowan, B., Nawar, R. and Sadiya, A., 2018. Clinical practice recommendations for the management of obesity in The United Arab Emirates. *Obesity facts*, 11(5), pp.413-428.



## Notable Programmes & Initiatives

*\*note that some of these are at emirate level, rather than national level*

1. A comprehensive screening programme - as part of wider Weqaya programme - that screens NCD risk factors (including BMI measurement annually) in all Emirati adults in Abu Dhabi<sup>4</sup>
2. Ministry of Health and Prevention's Ma'kom initiative has 4 main streams:<sup>5</sup>
  - a. Ma'kom for a balanced diet (including the junior chef initiative, an healthy lunchbox education programme and a voluntary healthy restaurant scheme)
  - b. Ma'kom for a healthier life (including a healthy workplace initiative, a school-based programme, and an app to encourage children to adopt healthy lifestyles)
  - c. Ma'kom for an ideal weight (including the 10-week 'Lose to Win' initiative, a childhood weight management programme and the mass media campaign 'Mane and Takhtookh')
  - d. Ma'kom for an active lifestyle (including a mass media campaign and other initiatives)
3. 50% tax rate applied to all carbonated drinks and a 100% tax applied to energy drinks<sup>6</sup>
4. School Canteen Guidelines for the Emirate of Abu Dhabi (For Caterers and Schools)<sup>7</sup>
5. National labelling of pre-packed food products, using a traffic light-based system<sup>8</sup>
6. Abu Dhabi Nutrition-labelling program Weqaya in the Emirate of Abu Dhabi<sup>9</sup>
7. The Ministry of Health and Prevention's 'Mutabah' system - an online system to collect data on overweight and obesity among students
8. Abu Dhabi Guideline for Implementing the Declaring of Calories on the Menus for Manufacturers and Food Suppliers for Ready-to-Eat foods in the Emirate of Abu Dhabi<sup>10</sup>
9. Abu Dhabi Guideline for Implementing 20% sugar reduction in food entities in the Emirate of Abu Dhabi<sup>11</sup>
10. 'Eat right, Get Active' - health promotion campaigns for children (2011-till date) and adults (2015-2016)

4 Hajat C, Harrison O, Al Siksek Z. Weqaya: a population-wide cardiovascular screening program in Abu Dhabi, United Arab Emirates. Am J Public Health. 2012;102(5):909-914. doi:10.2105/AJPH.2011.300290

5 <https://makom-fcsa.hub.arcgis.com/> (Accessed 12.08.2020)

6 NOURISHING Framework, World Cancer Research Fund (Accessed 12.08.20)

7 NOURISHING Framework, World Cancer Research Fund (Accessed 12.08.20)

8 <https://www.hw.gov.ae/en/news/to-promote-healthy-lifestyle-and-wellbeing-in-the-uae-national-program-for-happiness-and-wellbeing-launches-nutrition-labelling-policy#:~:text=The%20Nutrition%20Labelling%20Policy%20aims,becomes%20compulsory%20in%20January%202022.> (Accessed 12.08.20)

9 <https://qcc.gov.ae/-/media/Project/QCC/QCC/Documents/Quality-Infrastructure-Documents/Abu-Dhabi-Specification/Abu-Dhabi-Specifications/ADS-13---Specification-for-using-Weqaya-Food-program.pdf> (Accessed 12.08.20)

10 <https://qcc.gov.ae/-/media/Project/QCC/QCC/Documents/Quality-Infrastructure-Documents/Abu-Dhabi-Specification/Abu-Dhabi-Guideline/ADG-26---Abu-Dhabi-Guideline-for-Implementing-the-Declaring-of-Calories-on-the-Menus-for-Manufactu.pdf> (Accessed 12.08.20)

11 <https://qcc.gov.ae/-/media/Project/QCC/QCC/Documents/Quality-Infrastructure-Documents/Abu-Dhabi-Specification/Abu-Dhabi-Guideline/ADG271.PDF> (Accessed 12.08.20)



# United Arab Emirates

## Key Stakeholders

1. Ministry of Health and Prevention
2. Department of Health Abu Dhabi (previously the Health Authority Abu Dhabi)
3. Abu Dhabi Public Health Centre
4. Dubai Health Authority
5. Emirates Society of Metabolic and Bariatric Surgery
6. Emirates Clinical Nutrition Society
7. Emirates Diabetes Society
8. Emirates Cardiac Society
9. Emirates Medical Association
10. Emirates Family Medicine Society
11. Abu Dhabi Childhood Obesity Taskforce
12. Abu Dhabi Specification Working Group
13. Abu Dhabi Health Services Company

## Availability of anti-obesity medication

	Orlistat (Xenical)	Lorcaserin (Belviq)	Phentermine	Phentermine/ topiramate (Qsymia)	Naltrexone- bupropion (Contrave)	Liraglutide (Saxenda)
Approved and available in UAE	✓	✗	✗	✗	✓	✓



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