

### CONFRONTING OBESITY IN THE MIDDLE EAST

Cultural, social and policy challenges

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## **ABOUT THIS REPORT**

Confronting obesity in the Middle East: Cultural, social and policy challenges is an Economist Intelligence Unit (EIU) report, commissioned by Ethicon (part of the Johnson & Johnson Family of Companies). It examines the obesity problem in the Middle East, with a focus on the Gulf Co-operation Council (GCC) states, by looking at the disease burden, its causes and economic impact, obesity perceptions, associated diseases, and the policy response and outlook. The findings of this report are based on desk research and five in-depth interviews with senior healthcare experts.

Our thanks are due to the following for their time and insight (listed alphabetically):

- Nadia Ahmad, director, Obesity Medicine Institute, Dubai, UAE
- Faten Al-Nashash, clinical dietician and owner, Faten Mahmoud Al-Nashash Centre, Amman, Jordan
- Faisal Alnasir, professor and chairman, Department of Family and Community Medicine, Arabian Gulf University, Bahrain; and adviser to the World Health Organisation, Eastern Mediterranean region
- Sultan Al Nohair, assistant professor, College of Medicine, Qassim University, Saudi Arabia
- Salman Al-Sabah, general and bariatric surgeon, Al-Amiri Hospital and Royale Hayat Hospital, Kuwait

The report was written by Andrea Chipman and edited by Martin Koehring of The EIU.

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## **EXECUTIVE SUMMARY**

A combination of major lifestyle and dietary changes over the past few decades, harsh weather conditions that limit outdoor activities and a genetic predisposition has led to an obesity crisis in many parts of the Middle East, especially in the Gulf Cooperation Council (GCC) states of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE).

This report is based on five in-depth interviews with senior obesity experts from the region, complemented by extensive desk research. The main findings of the research are as follows.

The prevalence of obesity in the region is among the highest in the world. According to data from the World Health Organisation (WHO), obesity rates among adults are exceptionally high in the region, at more than 37% in the UAE, almost 40% in Kuwait and more than 42% in Qatar. Prevalence among women is generally significantly higher in the region than among men, and rates for young adults and teenagers top global charts for obesity and overweight. There has also been a marked increase in disability-adjusted life years (DALYs) due to obesity in the region.

High levels of obesity in the region are the result of a complex combination of interconnected environmental, cultural and biological causes. Diets and lifestyles have changed significantly in the region over the past decades. Food remains important for social, cultural and entertainment purposes, but a formerly Mediterranean-style diet has increasingly been replaced by a reliance on fast food. Meanwhile, levels of physical activity have plummet amid an increasingly sedentary lifestyle, a lack of sidewalks, high temperatures, rapid urbanisation and technological developments. Biology also plays a major role, including genetic susceptibility and a complex gene-environment interaction caused by the desert location. Women's risk of obesity often increases with childbearing, exacerbated by cultural factors such as restrictions on their public role and movement.

**Obesity is a major economic burden on countries in the region.** This is in part due to the link of obesity with associated conditions, such as diabetes, hypertension and cardiovascular problems. According to the International Diabetes Federation, spending on diabetes care in the Middle East and North Africa (MENA) region, as a percentage of total health expenditure, is already the highest globally. Studies show that spending on non-communicable diseases (NCDs)—many of which are linked to and exacerbated by obesity—could double between 2013 and 2022.

A widespread public perception in the region is that obesity is a symptom of diabetes or hypertension, rather than a disease in itself. Although public awareness of the problem is growing gradually as governments and populations realise the health problems associated with excess weight, obesity is not yet seen as a metabolic disorder in its own right. Experts say that this perception ultimately makes it more challenging to care for patients, for example highlighted by the fact that insurers frequently refuse to cover interventions in the region. A lack of data on the effectiveness of interventions as well as a lack of role models, especially among medical practitioners, compounds the problem.

Governments need to move on several fronts if they want to advance a more integrated response to the obesity crisis. Experts interviewed for this report have identified major policy gaps that need to be bridged. Governments must make sure that rudimentary preventive programmes, including education in schools, are in place and include families. In order to tackle childhood obesity, a more integrated approach involving nurse practitioners, family physicians and even social workers is required, with a stronger focus on preventive strategies for reproductive-aged women. Governments may also have to consider more aggressive regulatory measures, such as bans on the sale of sugary drinks in or near schools or taxes on unhealthy food. For those who are already obese, experts recommend better training of professionals with expertise in the complexities of obesity, particularly the creation of multidisciplinary teams to treat patients, with a core team including specialists in obesity medicine and management, dieticians and even specialist psychologists.

## INTRODUCTION

Obesity, a growing problem in most developed economies, has reached crisis levels in many parts of the Middle East. Striking changes in lifestyles and diets over the past few decades and harsh weather conditions that inhibit outdoor activities have combined with genetic factors to create a perfect storm of sorts that has made the region's populations especially vulnerable to obesity and associated conditions, such as hypertension and diabetes.

Levels of overweight and obesity are rising across the region. The problem is particularly acute in the states of the Gulf Co-operation (GCC)—most notably in Bahrain, Kuwait, Qatar, Saudi Arabia and the UAE—where dramatic improvements in standards of living have exacerbated the problem. Women and children are especially likely to be affected in these countries. Oman, the sixth GCC state has a lower prevalence of obesity than its neighbours.

"Over the last 20 to 30 years, we have changed from an active lifestyle to one of physical inactivity due to the availability of car transport most of the time," says Sultan Al Nohair, associate professor at the College of Medicine at Qassim University in Saudi Arabia.

Despite the need for a hard-hitting approach, however, government policies across the region have been uneven at best. Preventive programmes remain nascent in many countries, and few have gone much beyond even that, with little apparent appetite so far for the regulatory measures that have become more common in Europe. Meanwhile, most countries in the region still do not cover more intensive intervention, including supported weight-loss programmes and bariatric surgery, let alone provide the multidisciplinary, individualised approach to patients that many experts argue is crucial to combat obesity effectively. Finally, the absence of adequate data on the factors contributing to obesity in the region, and the lack of effectiveness of existing measures to reduce it, are hampering further progress.

This report will examine the obesity problem in the Middle East by first looking at the disease burden, its causes and economic impact (Chapter 1). It will then analyse obesity perceptions and associated diseases in the region (Chapter 2). Finally, the report will examine the policy response and outlook (Chapter 3), before some concluding remarks.

### CHAPTER 1: DISEASE BURDEN, CAUSES AND ECONOMIC IMPACT

The obesity crisis in the Middle East stems in large part from the overwhelming changes in lifestyle that have taken place in the region over the past half-century or so, experts interviewed for this paper agree.

In addition, the limited public role of women in many parts of the region, especially when compared with Europe and North America, has contributed to the differences in obesity rates between men and women across the Middle East.

Differences in rates of obesity between and among populations in the region are also evident, such as gaps between native Arab populations in the Gulf states and foreign workers. This is likely to be a result of both cultural factors and variations in the underlying genetic susceptibility to obesity, according to Nadia Ahmad, an internal medicine and obesity specialist and director of the Obesity Medicine Institute in Dubai. "As a disorder of energy regulation, obesity is a very heterogeneous condition," she explains. "The underlying biology is so complex that you have many sub-types of obesity and each sub-type appears to respond best to a different treatment." At least one study has supported the argument for a genetic tendency towards obesity in the region.<sup>1</sup>

The results of these developments are stark. The prevalence of obesity in the GCC countries is among the highest in the world (see Table 1), according to the *Global status report on noncommunicable diseases 2014* by the World Health Organisation (WHO).<sup>2</sup> The report reveals that prevalence rates (age-standardised adjusted) in 2014 reached more than 37% in the UAE, almost 40% in Kuwait and more than 42% in Qatar. Particularly worrying is the high share of obese women across the region's states, reaching 50% in Qatar, 46% in Kuwait and 45% in the UAE. Rates for young adults and teenagers also top global charts for obesity and overweight.<sup>3</sup> Outside the Gulf region obesity rates are somewhat lower, but prevalence has been on the increase. For example, more than 30% of Jordan's adult population and 39% of its women are obese.

Europe is also facing an obesity crisis, as highlighted by a 2015 report by The Economist Intelligence Unit (EIU), but at an average of 20% obesity rates were comparatively lower. However, the rate was as high as 28% in the UK, and in the US it stood at around 34% of the population.<sup>4.5.6</sup>

There has also been a marked increase in disability-adjusted life years (DALYs) owing to obesity in the Middle East region, which is another important indicator of the growing disease burden. According to the WHO, "one DALY can be thought of as one lost year of 'healthy' life".<sup>7</sup> DALYs are calculated as the sum of years of life lost (YLL) due to premature mortality in the population and years lost due to disability (YLD) for people living with the health condition or its consequences (WHO definition). According to data from the WHO's 2015 Global Burden of Disease Study, DALYs as measured by the risk

<sup>1</sup> AC Fahed, AM El-Hage-Sleiman et al, "Diet, Genetics and Disease: A Focus on the Middle East and North Africa Region", *Journal of Nutrition and Metabolism*, 2012(4):109037, March 2012.

<sup>2</sup> World Health Organisation (WHO), Global status report on noncommunicable diseases 2014. Available at: http://apps.who.int/iris/ bitstream/10665/148114/1/9789241564 854\_eng.pdf?ua=1

<sup>3</sup> Ibid.

<sup>4</sup> Economist Intelligence Unit, Confronting obesity in Europe: Taking action to change the default setting, November 2015. Available at: https:// www.eiuperspectives.economist. com/healthcare/confronting-obesityeurope-taking-action-change-defaultsetting

<sup>5</sup> WHO, The challenge of obesity quick statistics. Available at: http:// www.euro.who.int/en/health-topics/ noncommunicable-diseases/obesity/ data-and-statistics

<sup>6</sup> WHO, Global status report on noncommunicable diseases 2014.

<sup>7</sup> WHO, Metrics: Disability-Adjusted Life Year (DALY). Available at: http://www. who.int/healthinfo/global\_burden\_ disease/metrics\_daly/en/

Table 1: Obesity prevalence in the Middle East region, 2014			
	Both sexes	Males	Females
Bahrain	35.1	30.5	42.8
Egypt	28.9	20.3	37.5
Iran	26.1	20.1	32
Iraq	23.8	17.2	30.5
Jordan	30.5	22.7	38.6
Kuwait	39.7	35.5	45.9
Lebanon	31.9	26.3	37.7
Oman	30.9	27.2	37.7
Qatar	42.3	40	49.7
Saudi Arabia	34.7	29.9	41.4
Syria	23.5	17.4	29.9
UAE	37.2	33.8	45.1
Yemen	17.2	11.1	23.4

Notes: Obesity is defined as a body mass index (BMI) of ≥30. Age-standardised adjusted estimates for population aged 18+. For the purpose of this report, data for Cyprus, Israel, Palestine and Turkey are not included.

Source: World Health Organisation (WHO), Global status report on noncommunicable diseases 2014.

factor "high body-mass index" rose by 62% across the Middle East and North Africa (MENA) region between 2000 and 2015, with even more significant increases in the UAE (314%), Oman (161%) or Qatar (139%), for example (see Chart 1).

#### New behaviours

Since the middle of the 20th century the Gulf states have undergone an almost unimaginable transformation in fortunes, as abundant oil resources have contributed to extensive wealth.

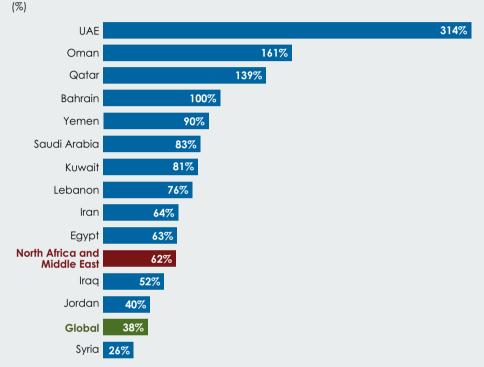
One of the many consequences of this development has been a significant change in eating habits, with the GCC's former Mediterranean-style diet of traditional products, such as dates, vegetables and wheat, replaced by a reliance on fast food, dominated by refined and processed meals heavy in sugar and other carbohydrates.

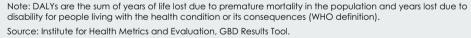
Meat consumption increased by 500% in Saudi Arabia between 1973 and 2014 and by 97% in other Gulf states over the same period. More than 81% of men and women surveyed in 2013, meanwhile, consumed fewer than three servings of fruit and vegetables per day, and 46% of men and 75% of women practiced only a low amount or no physical activity at all.<sup>8</sup>

<sup>8</sup> Z Memish, C El Bcheraoui et al, "Obesity and Associated Factors - Kingdom of Saudi Arabia, 2013", Preventing Chronic Disease: Public Health Research, Practice, and Policy, October 2014, p. 3. Diets are increasingly carbohydrate-heavy and dominated by bread and especially rice, which is a staple lunchtime food for Gulf populations, according to Faisal Alnasir, a professor of family medicine in Bahrain and adviser to the WHO, Eastern Mediterranean region.

#### Chart 1

Increase in disability-adjusted life years (DALYs) due to risk factor "high body-mass index" between 2000 and 2015





The problem is even worse in neighbouring Saudi Arabia, where a study conducted by Dr Al Nohair found that those in the 20-30 age range typically ate at least three fast-food meals a week. "You can't imagine how bad the addiction is to that type of food," he says. "Many fast-food restaurants are located near schools and universities, and the fact that some restaurants stay open past midnight exacerbates the problem."

And given the association of food with social interaction, the problem goes beyond the type of food people eat in the region. Because food is such an important part of the culture, it is connected with both happy and sad occasions, with time spent at home with the family and with welcoming guests, all of which has an impact on the quantities consumed.

"The only entertainment activity is going to the restaurant and having food," says Faten Al-Nashash, a clinical dietician and owner of Faten Mahmoud Al-Nashash Centre, a nutrition consultancy in Amman, Jordan.

At the same time, a population that had traditionally been nomadic has seen its activity levels plummet as its caloric intake has increased. "In our country, most people have

their own car and don't need to walk," says Dr Al Nohair. A lack of sidewalks and temperatures that can top 40°C inhibit physical activity outdoors and can alter sleep patterns, those interviewed say.

Urbanisation and technological developments, such as elevators and escalators, have slowed levels of physical activity further, according to Dr Al Nohair, who also points out that in rural areas such as south-western Saudi Arabia, where people are still engaged in traditional industries such as fishing and agriculture, the prevalence of obesity is far lower.

While all of these factors play a contributing role in driving the obesity epidemic, Dr Ahmad observes that there are segments of the region's population that maintain a normal weight under the same conditions, "and they aren't necessarily working out seven days a week". Biology, she says, is clearly a crucial part of the puzzle. "The desert environment and lifestyle factors have an impact on biology, so you are talking about a gene-environment interaction, as is the case for most chronic diseases. You need a perfect storm to create an obesity epidemic: a genetic predisposition, a change in the food environment, a change in activity levels, increased stress, and poor sleep patterns. These are some of the factors that have worked together to increase our set point for fat storage."

#### The role of women

Obesity rates, which are at crisis levels across much of the Middle East region, tend to be even more severe for women, particularly in the GCC countries (see Table 1). This phenomenon is in part due to cultural factors, most notably the far less public role of women, which in itself leads to a more sedentary lifestyle, according to those interviewed.

In Saudi Arabia, obesity levels in adult women are above 40%, compared with around 30% for men, something that Dr Al Nohair attributes in part to greater restrictions on their movement.

Women's risk of obesity often increases with childbearing. "Women in Jordan give birth, gain a lot of weight during pregnancy, then don't lose it afterwards," says Ms Al-Nashash. She adds that women concentrate on their families and rarely make time for exercise.

Moreover, women with weight problems are far less likely to have opportunities to become more active in public owing to cultural restrictions, with just 2-6% exercising in the Gulf countries. Prospects for getting involved in sports are also limited, although this is gradually changing.

<sup>9</sup> "Obesity in the Middle East", Global Health Middle East, April 2nd 2014. Available at: http://www. globalhealthmiddleeast.com/obesityin-the-middle-east/ Finally, in countries such as Algeria and Tunisia cultural norms also associate plumpness with beauty and wealth—an ideal that has long since been rejected in Western countries.<sup>9</sup>

#### Childhood obesity on the rise

Children are increasingly sharing the obesity problem of their parents. "We are seeing that the [obesity] trend is changing," says Professor Alnasir, who is also an adviser to the World Organisation of Family Doctors. "It is affecting more adolescents—between 40% and 50% of adolescents up to the age of 18 and even children. This trend has been more or less common for almost all of the six Gulf countries."

As is the case with the adult population in the Middle East, children in the GCC are among the least active and are indulged with fast food, sweets and sugary beverages, according to Professor Alnasir.

### The burden on economies

Obesity is already posing a growing threat to the region's economies, owing in large part to its link with associated conditions such as diabetes, hypertension and cardiovascular problems.

A study by UK consultants Strategy& warned that non-communicable diseases (NCDs) many of which are linked to and exacerbated by obesity—could cost the GCC states US\$68bn a year in lost output and treatment costs by 2022, almost double an estimate of US\$36bn in 2013.<sup>10</sup> For the UAE alone, the McKinsey Global Institute estimates the economic burden of obesity at US\$6bn annually.<sup>11</sup>

Diabetes is an associated disease strongly linked to obesity (see Chapter 2). According to the International Diabetes Federation, spending on diabetes care reached US\$17.1bn in 2015, or 15% of total health expenditure, in the MENA region, the highest proportional expenditure globally and well above the global average of 11.6%.<sup>12</sup>

<sup>10</sup> Strategy&, The 68\$ billion challenge: Quantifying and tackling the burden of chronic diseases in the GCC, 2013, p. 4

<sup>11</sup> "Special report: Obesity rate in the UAE double the world average", *The National*, February 18th 2015. Available at: http://www.thenational.ae/uae/ health/special-report-obesity-rate-inthe-uae-double-the-world-average

<sup>12</sup> International Diabetes Foundation, *IDF Diabetes Atlas,* Seventh Edition, 2015, p. 58.

### CHAPTER 2: OBESITY PERCEPTIONS AND ASSOCIATED DISEASES

As is the case in many other parts of the world where obesity is a major threat for example in western Europe, the subject of a recent ElU study on obesity perceptions<sup>13</sup>—obesity is seen as a symptom rather than a disease in its own right in many parts of the Middle East. This has an impact on how governments approach the problem (see Chapter 3).

#### Seen as a symptom rather than a disease

High obesity rates are undoubtedly exacerbating levels of chronic diseases such as diabetes and hypertension in the region. An unwillingness to focus on obesity as a central problem in itself is affecting efforts to combat the problem, according to many experts in the region.

"The main problem here in Jordan is that people consider obesity to be a symptom of diabetes or hypertension, rather than a disease in itself," says Ms Al-Nashash. "There aren't enough studies about obesity in Jordan."

According to Dr Al Nohair, Saudi society appears to treat obesity as a "cosmetic problem" rather than a disease, despite recognition of its disease status in the US and by the WHO in recent years. As a result, insurance companies frequently won't cover bariatric surgery because they consider it to be cosmetic, rather than therapeutic, he says (see Chapter 3).

"Obesity by itself has increased hypertension and diabetes," he adds. "So we are dealing with hypertension as a disease, but we are not dealing with obesity as a disease."

Similarly, in Kuwait, the Dasman Diabetes Institute was opened in 2006, but there is less of a focus on obesity, one of the main risk factors for the illness; for example, the centre's website does not mention obesity by name in its section on preventing diabetes.<sup>14</sup>

#### Associated diseases

The obesity problem in the MENA region is linked to the region's high overall rates of related chronic conditions. MENA has the world's highest prevalence of diabetes in adults, with comparative diabetes prevalence of 19% in the UAE and 23.9% in Saudi Arabia in 2014, for example, according to the International Diabetes Foundation.<sup>15</sup> The region also has above-average levels of hypertension.

In Bahrain, where more than one-third of the general population is obese, the prevalence of type 2 diabetes has shot up to around 30% over the past decade, according to Professor Alnasir, and rates of diagnosed hypertension range from 22% to 25%. The number of undiagnosed cases is likely to be in a similar range, he adds.

<sup>13</sup> Economist Intelligence Unit, Confronting obesity in Europe.

<sup>14</sup> Dasman Diabetes Institute, "Can I prevent diabetes?". Available at http:// www.dasmaninstitute.org/?page\_ id=12526

<sup>15</sup> IDF, IDF Diabetes Atlas, Middle East and North Africa at a Glance. Available at: http://www.idf.org/sites/ default/files/attachments/MENA%20 factsheet.pdf Meanwhile, other related NCDs such as arthritis, knee and hip-joint conditions are also on the rise, reflecting the trend towards a more sedentary lifestyle and putting an additional burden on government finances.

"This is now happening to middle-aged people as well—it's like a domino effect, and one thing affects the other," Professor Alnasir says. "Diabetes, arteriosclerosis etc all cost the government money, and a lot of the budget is going into treating the complications. There should be more money going into prevention [of NCDs] in order to prevent complications."

That said, awareness of the problem is growing gradually as governments and populations realise the health problems associated with excess weight. A 2013 study of the problem in Saudi Arabia noted: "Socially, the perception of obesity has changed over time. Whereas it once was associated with wealth and prosperity for men and with health and reproduction abilities for women, it is now perceived as a health problem and a risk factor for many diseases."<sup>16</sup>

Yet the unwillingness to view obesity as a metabolic disorder in its own right ultimately makes it more challenging to treat, according to Dr Ahmad. In particular, she says, the underlying diversity of biology means that prevention, medication and even bariatric surgery have "a wide range of responses" in different people. As a result, both patients and healthcare providers in the region all too frequently conclude that treatments have little value just because they have failed to work in some patients. A lack of data on the effectiveness of treatments and preventive measures in the region compounds the problem, Dr Ahmad adds.

"We need to have a range of treatments available and accessible, we need to have providers who are skilled and equipped at applying these treatments, and we need to have a healthcare infrastructure that supports assessment and treatment of obesity in that manner," she says.

#### Lack of role models

Although there is a growing realisation that obesity poses an ever greater danger to Middle Eastern countries and their economies, the process of educating and presenting better role models is a relatively recent one.

Indeed, a 2015 report on obesity and behaviours associated with physicians in Jordan found that 47.9% of medical practitioners who took part in the study were themselves either overweight or obese, and more than half (52.9%) reported no planned physical activity on average per week. One-fifth of those studied admitted to being smokers, one of the risk factors associated with metabolic diseases such as type 2 diabetes.<sup>17</sup> The study found similar rates of overweight and obesity among medical practitioners in Bahrain (44.3%) and slightly lower rates among nurses in Saudi Arabia (26.1%).<sup>18</sup>

<sup>16</sup> Memish *et al*, "Obesity and Associated Factors".

<sup>17</sup> JF Alarjan, OS Hindawi et al, "Prevalence of obesity and behaviors associated with development of metabolic disease among medical practitioners in Jordan," *Journal of Education and Health Promotion*, 2015; 4: 17, p. 1.

<sup>18</sup> Ibid.

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### CHAPTER 3: POLICY RESPONSE AND OUTLOOK

The hardest-hit countries in the Middle East will need to move on a number of fronts simultaneously if they are to stem the increase in obesity levels and avoid excessive pressure on the region's health systems.

In the first place, like governments in other regions, they must make sure that rudimentary preventive programmes, including education in schools, are in place and involve families in order to support a healthy weight for children and provide better access to exercise for all populations. Many governments are already in the process of taking this initial step, although progress is uneven across the region.

"The government has realised that this is a problem, and it has to tackle it right from the beginning and not just treat the complications," says Professor Alnasir. In Bahrain, the government has introduced awareness programmes designed to change food habits, and the public-health wing of the Ministry of Health is working more closely with family physicians in an effort to take a whole-family approach to changing lifestyles, including promoting breastfeeding for the first 18 months, based on studies showing that breastfed babies are less likely to be obese.

Yet Bahraini society could do more to tackle the scourge of childhood obesity in particular, Professor Alnasir notes. He adds that schools should do their part to increase the physical activity of students, and an integrated approach from nurse practitioners, family physicians and even social workers is needed to identify obesity in childhood, when it is easier to manage. Part of this integrated approach is likely to involve fighting cultural assumptions that excess weight equates better health.

With recent research showing that metabolic hardwiring happens prior to birth, governments could do worse than focus preventive strategies on reproductive-aged women, Dr Ahmad observes.

### The role of regulation

Second, governments may have to consider more aggressive regulatory measures everything from bans on the sale of sugary drinks in or near schools to taxes on unhealthy foods.

Saudi Arabia's government has banned sugary soft drinks in primary and secondary schools, Professor Alnasir says, and restaurants must provide calorie counts on menus. But he believes that increased awareness in traditional and social media would help, as would restrictions on fast-food advertising in the media and on street billboards. In addition, he explains, the kingdom could do more to encourage physical activity, either through discounted gym memberships or the creation of more places where women

can exercise. Most important, he says, is the need for greater co-operation between the Saudi health ministry and the media to commit to fighting obesity and decreasing obesity rates to 30% within five years.

While Kuwait has recently introduced campaigns against obesity in malls, schools and universities, there has been little in the way of broader prevention programmes, and at present there is little discussion about legislative approaches to the crisis, according to Salman Al-Sabah, a general and bariatric surgeon at Kuwait's Al-Amiri and Royale Hayat hospitals. "In time, this will be addressed, but it is a work in progress," he says. "Only in the last five or six years has [obesity] been seen as a public issue."

As is the case elsewhere in the Gulf, Kuwait has followed a familiar model with its initial recognition of the obesity problem through the opening of a number of nutritional clinics and gyms over the past six or seven years, Dr Al-Sabah adds.

In Abu Dhabi, the Weqaya programme has helped to boost screening for various cardiovascular disease risk factors, such as a high body mass index (BMI).<sup>19</sup> Meanwhile, stricter rules to control advertising for fast foods have been introduced, and school canteens have been banned from selling "junk" food.<sup>20</sup> Moreover, a wider sugar tax has also been mooted in recent years.<sup>21</sup>

In Jordan, the Royal Health Awareness Society (RHAS), a non-governmental organisation established in 2005, runs a number of prevention programmes on healthy diet choices, improved physical activity and psychological support for those looking to lose weight. The RHAS's most recent initiative, the "Healthy Kitchen" project launched in 2015, aims to improve school meals to support better eating habits, according to Ms Al-Nashash.

But at least some of those interviewed say their governments will need to strengthen its initial behavioural approach to obesity by giving it regulatory teeth. "Prevention is important and prevention-through-awareness campaigns are important," says Dr Al-Sabah. "Surgery is one aspect of tackling the burden of obesity on our society; however, this issue should also be addressed through multidisciplinary healthcare teams as well as in other disciplines, such as education and legislation."

Dr Ahmad points out that government health authorities in the UAE have been trying to introduce greater standardisation, from training programmes for healthcare workers to eligibility criteria for surgery, although the lack of data makes it more difficult for policymakers to make evidenced-based decisions.

Meanwhile, better training of professionals with expertise in the complexities of obesity is key, she says, adding that such expertise will be needed across the range of approaches for tackling obesity. "There are treatments and lifestyle approaches, and you need integrated centres for that."

Particularly important is the creation of multidisciplinary teams to treat patients, with a core team that includes specialists in obesity medicine and management, dieticians

<sup>19</sup> Health Authority Abu Dhabi, Weqaya, October 2011. Available at: http://www.who.int/tobacco/mhealth/ weqaya.pdf

<sup>20</sup> "School canteens banned from 'junk' and fast-food advertising to be controlled in UAE", *The National*, December 10th 2013. Available at: http://www.thenational.ae/uae/ health/school-canteens-banned-fromjunk-and-fast-food-advertising-to-becontrolled-in-uae

<sup>21</sup> "Sugar awareness improving, but UAE parents must do more, says doctor", FoodNavigator.com, December 7th 2015. Available at: http://www. foodnavigator.com/Regions/Middle-East/Sugar-awareness-improving-but-UAE-parents-must-do-more-says-doctor and even specialist psychologists, who are as yet in short supply in the Middle East. Such teams will ultimately feed their knowledge and expertise down to the primary-care sector, which also remains underutilised in the Gulf region, according to Dr Ahmad.

In Europe, countries such as the Netherlands have successfully introduced such an integrated healthcare standard for obesity. A recent EIU country case study on confronting obesity in the Netherlands describes how such an approach makes use of a multidisciplinary team of health professionals under a single case manager; the team co-ordinates obesity care as part of an individual healthcare plan developed in cooperation with the patient.<sup>22</sup>

### The role of surgery in the region

The lack of sufficient healthcare coverage that provides access to high-level intervention for the morbidly obese—including intensive weight-loss programmes and bariatric surgery—makes it more difficult for governments to confront the problem adequately.

Given the scope of the region's obesity problem, it is hardly surprising that bariatric surgery has risen in importance, especially in the Gulf countries and Jordan. Yet few countries in the region cover it under their health insurance schemes, and with recent data hard to come by, it remains unclear how easy it is for patients in need to access surgical interventions.

Professor Alnasir estimates that just one in ten of those who are eligible for such surgery in Bahrain are able to afford it, although the procedure is covered for those with a BMI over 40.

In Saudi Arabia, where surgery costs around SAR35,000 (US\$9,331) and there is a waiting list of 4-5 years in government hospitals, some types of surgery are fully covered by the government, while others are paid for through private insurance.

In neighbouring Kuwait, meanwhile, the number of bariatric and metabolic surgical procedures has been increasing over the past decade or so, from 200-300 in 2007 to around 5,000 a year since 2012, according to Dr Al-Sabah. Unlike in some neighbouring countries in the region, where stricter limits apply, Kuwait recently lowered the BMI threshold for surgery to 30 for those with an associated metabolic disorder, such as diabetes, high cholesterol and hypertension, in order to address the issue.

In Jordan, too, although the government insurance covers a limited number of people, most of those who choose surgical intervention go privately, according to Ms Al-Nashash.

<sup>22</sup> EIU, Confronting obesity in the Netherlands: Taking action to change the default setting, February 2016. Available at: https://www. eiuperspectives.economist.com/ healthcare/case-study/confrontingobesity-netherlands

But better surgical interventions are also likely to require better regulation of patient selection and surgical follow-up care, says Dr Ahmad, noting that intense competition in the field has meant more surgical providers but not always better care. There has been a move towards standardisation in the government sector and new regulations for the private sector, but much remains to be done in the UAE and elsewhere in the region, she adds.

## CONCLUSION

The Middle East region, which has some of the world's most alarming obesity rates, is only just waking up to the problem. As a result, it is barely out of the starting gate with regard to confronting the problem.

Acknowledging the importance of cultural factors, including the region's relationship with food and the environment that leads to particularly high rates of obesity in women, will be key to beginning to understand why the region's populations continue to gain weight. Experts also highlight that further regulatory carrots and sticks may be necessary, for example restrictions on advertisements for unhealthy foods.

Encouraging greater physical activity will require a change in modern lifestyles, especially in the Gulf countries, as well as investment in leisure spaces that are conducive to exercise.

Given the rise in the morbidly obese population, governments will also have to rethink healthcare coverage in order to provide access to high-level interventions such as intensive weight-loss programmes and bariatric surgery.

Finally, policymakers will have to acknowledge the complexity of obesity and its myriad causes, and invest in both research to help them determine the evidence-based approaches proven to combat the problem and better training of a range of medical experts able to provide integrated and individualised care.

While every effort has been taken to verify the accuracy of this information, The Economist Intelligence Unit Ltd. cannot accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out in this report.

# The Intelligence Economist Unit

LONDON 20 Cabot Square London E14 4QW United Kingdom Tel: (44.20) 7576 8000 Fax: (44.20) 7576 8500 E-mail: london@eiu.com

NEW YORK 750 Third Avenue 5th Floor New York, NY 10017 United States Tel: (1.212) 554 0600 Fax: (1.212) 586 1181/2 E-mail: americas@eiu.com

HONG KONG 1301 Cityplaza Four 12 Taikoo Wan Road Taikoo Shing Hong Kong Tel: (852) 2585 3888 Fax: (852) 2802 7638 E-mail: asia@eiu.com

#### GENEVA

Rue de l'Athénée 32 1206 Geneva Switzerland Tel: (41) 22 566 2470 Fax: (41) 22 346 93 47 E-mail: geneva@eiu.com