

## **Review Article**

### **Obesity in Gulf Countries**

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#### **Abstract**

Globally obesity has reached to epidemic proportions, and the people of the Gulf countries have also affected, especially high-income, oil-producing countries. The prevalence of obesity in Gulf Countries among children and adolescents ranges from 5% to 14% in males and from 3% to 18% in females. In adult females there is a significant increase of obesity with a prevalence of 2%–55% and in adult males 1%–30% in countries of gulf region.

Over the last two decades there is increased consumption of fast foods and sugar-dense beverages (e.g., sodas). Simultaneously, technological advances – cars, elevators, escalators, and remotes have lead to a decrease in level of activity. Traditional dependence on locally grown natural products such as dates, vegetables, wheat and has also shifted. Changes in food consumption, socioeconomic and demographic factors, physical activity, and urbanization are being important factors that contribute to the increased prevalence of obesity in the region.

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## Introduction

Obesity is due to the imbalance between energy intake and energy expenditure. One of the most recent global estimates finds that roughly 500 million adults are obese. World Health Organization (WHO) defines obesity as body mass index (BMI) of 30 kg/m<sup>2</sup> or more and considers obesity as a visible health issue that has only received recognition during the last 10 to 15 years. <sup>(1)</sup>

Excess weight is the important risk factor for chronic diseases and is associated with diabetes mellitus, hypertension, cerebral and cardiovascular diseases, osteoarthritis, various cancers, and breathing disorders. <sup>(2-3)</sup>

There is an increased concern about obesity and its associated illnesses in the Gulf countries and the factors responsible for it, including changes in social and cultural environments, education, physical activity, diet and nutrition, and difference in income and time expenditure. <sup>(4)</sup>

This paper reviews studies on the prevalence of obesity in high income Gulf countries such as Bahrain, Kuwait, Qatar, Oman, Saudi Arabia, Lebanon and the UAE.

## Prevalence of Adulthood obesity in Gulf Countries

The prevalence of obesity has increased at an alarming rate during the last two decades, and this appears to be more pronounced in women. The prevalence of obesity increased with industrial development, which in the Arabian Gulf is related to the significant growths in incomes resulting from the rich deposits of oil reserves and the resultant impact of rapid urbanization and improved living conditions. <sup>(5)</sup>

The rapid increase in wealth and subsequent development of Gulf countries lead to change in lifestyle. International fast food chains, easy access to cars and increased popularity of processed food etc, have contributed dramatic increase in obesity in Gulf countries. Besides the excessive consumption of fatty, salty and processed food and lack of exercise due to change in life style are important factors. <sup>(6)</sup>

World Health Organization in its report indicates that gulf countries have highest rate of obesity. Kuwait, Bahrain, Saudi Arabia and United Arab Emirates are in the list of top ten countries worldwide in term of obesity. <sup>(7)</sup>

Kuwait is affected the worst with 42.8 percent obese population, this place Kuwait in top 10 most obese countries in the world. Countries such as Saudi Arabia and Qatar are not behind, with 35.2 percent and 33.1percent obesity rate respectively. <sup>(8)</sup>

Data are scarce from many countries in of Middle East, but even so, there's compelling evidence that obesity rates are on the rise. Obesity trends in the seven Gulf countries are evaluated i.e. Oman, Bahrain, United Arab Emirates, Saudi Arabia, Qatar, Lebanon and Kuwait, since these countries have seen tremendous increases in wealth since the discovery of oil reserves in 1960s.

In Saudi Arabia, for example, recent surveys have found that 28 percent of men and 44 percent of women are obese, and 66 percent of men and 71 percent of women are overweight or obese. In Kuwait, 36 percent of men and 48 percent of women are obese, while 74 percent of men and 77 percent of women are overweight or obese. Obesity rates are higher among women in the region than men. <sup>(9)</sup> Prevalence of obesity with high prevalence is shown in table -1

**Table 1: Prevalence of obesity in Gulf Countries**

Country	Male	Female
Kuwait	36%	48%
Saudi Arabia	28%	44%
UAE	25%	42%
Bahrain	21%	38%
Qatar	19%	32%
Lebanon	15%	27%
Oman	8%	17%

(WHO estimates 2010)

### **Socio- Economic Factors**

Urbanization and technical advancements in Gulf countries has resulted increased obesity in cities and towns. For example, children living in the rural southwestern region of Saudi Arabia have a lower rate of obesity (4%), because people participate in active lifestyles such as fishing and agricultural work; this is unlike the situation for children living in cities in the western (obesity prevalence of 10%) and eastern (14%) provinces (e.g., Jizan (12%), Ha'il (34%), or Riyadh (22%)) where sedentary lifestyle and high-fat fast food consumption are common. <sup>(10-11)</sup>

It has been reported that in the UAE, people living in isolated rural areas still maintain a Bedouin lifestyle and eat traditional foods and consequently also have lower obesity rates than those in urbanized areas. <sup>(12)</sup>

Income is also an important factor that can lead to obesity, especially in the Arabic-speaking oil-exporting countries. For example, meat consumption in Saudi Arabia increased by 500% while that in other gulf states increased by 97% during the 1973 to date. High-income families in Kuwait consume more meat, eggs, and milk than families with low incomes. <sup>(13)</sup>

Other reasons of obesity in Arabic-speaking countries include the extreme outdoor temperatures that created lack of forestation and vegetation in general, forcing people to remain indoors and resort to using cars to travel even relatively short distances. <sup>(14)</sup>

Many studies indicate that married people are more susceptible to being overweight and obese. The reason for this could be that married couples are less active and tend to eat together, likely reinforcing increased food intake. <sup>(15)</sup>

Education also plays a role in obesity prevalence since there is evidence that illiteracy increases the level of obesity in the Gulf countries. For example, 51% of illiterate Syrians are obese while 28% of people with a university education are obese. Similarly, Jordanians with less than 12 years of education are approximately 1.6 times as likely to be obese compared with more than 12 years of education. Similarly, Lebanese with limited formal education are twice as likely to be obese. <sup>(16-17)</sup>

There may be a perception among some parents in the UAE that being overweight is a sign of high social status, beauty, fertility, and prosperity. <sup>(18)</sup>

### **Physical activity**

Physical activity is defined as body movement produced by skeletal muscle that results in energy expenditure above basal levels. Rapid economic development in the Gulf countries has produced significant changes in socioeconomic status and lifestyle; the extensive road networks, increased availability of cars, greater use of mechanized appliances, widespread use of computers, televisions, and electronic gaming devices have encouraged a more sedentary lifestyle that leads to greater accumulation of body fat. <sup>(19)</sup>

More than half (~57%) of boys aged 7–12 years old in Riyadh (Saudi Arabia) do not participate in even moderate levels of physical activity (activity that raises the heart rate to above 139 beats per minute, for 30 minutes or more), while 81% of adult males in Riyadh city are inactive. Almost all (99.5%) adult females in Asir province do no exercise of any type. <sup>(20)</sup>

### **Reasons for high Obesity rate in women**

Traditional/cultural restrictions in lifestyle of women in Gulf countries are one source for increased rates of obesity among women. Females have limited access to sports and exercise activities, besides there is easy availability of cheap migrant labor for household work. Almost all families in Kuwait and Saudi Arabia commonly employ cooks and maids leading to sedentary lifestyle. <sup>(21)</sup> TV and internet being the main leisure activity among women is another important factor. Multiple pregnancies is an important factor as women gain 4.5 kg or more in one year postpartum, due to a combination of factors such as gestational weight gain, decreased physical activity, and increased food intake. <sup>(22)</sup>

### **Negative social effects of obesity**

The negative social effects of obesity includes embarrassment due to excessive weight, stigma and other derogatory remarks, low self-esteem, eating disorders as bulimia and eating large quantities of food, mood disorders and depression. <sup>(23)</sup>

### **Conclusion**

Abundant diet that is rich in fats, carbohydrates and processed foods, as well as a lack of physical activity, are the main culprits. Main problem regarding obesity is that common people do not have a good concept of a healthy

lifestyle and the importance of daily exercise. Most people are using their cars even to go to the nearest place, like the mosque. They have to use their legs instead of their cars. Junk food and energy dense drinks should be avoided.

The increases in obesity over the last 2-3 decades have already led to increases in obesity-related chronic diseases, a trend that threatens healthcare systems, economies, and individual lives. As costs of obesity are huge, both personal and health care system, prevention is the key.

Increased public awareness regarding healthy eating habits and promotion of physical activity and exercise is required. Mass media both print and electronic is required to create awareness among masses. School base health education will also be effective.

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