

# Childhood obesity and type 2 diabetes: a growing public health challenge *in UAE*

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*In the oil-exporting Arab countries – Saudi Arabia, Kuwait and the United Arab Emirates (UAE) – the economic growth and development of the past three decades have been dramatic. This socio-economic progress has brought benefits to many people in the region, such as improved access to health care, education, and safe drinking water. However, economic development has set the scene for the transformation of lifestyles, eating habits, and traditional societal and family structures in the region. These changes are not all for the better. In fact, lifestyle-related non-communicable health conditions are having an increasingly negative impact on the health of many adults and children. Abduelmula R Abduelkarem reports from the UAE on the growing health burden provoked by obesity-driven type 2 diabetes in young people in the country.*

Although the available data on the prevalence of type 2 diabetes in the UAE are still limited, the condition appears to be a significant problem. According to the results of a national diabetes survey, conducted in 2000 by the Ministry of Health and the World Health Organization (WHO), almost a quarter of the population in the UAE had diabetes of one form or another.<sup>3</sup> Furthermore, it has been reported that deaths attributable to diabetes accounted for 2%-3% of all deaths in the UAE in the last ten years, and that, if current trends continue, in the next 25 years diabetes will affect as many as half the people in the country.<sup>1</sup>

**Diabetes is set to affect half the UAE population in the next 25 years.**

Chronic health conditions, such as diabetes, which are linked both directly and indirectly to behavioural, nutritional and environmental factors, have emerged in recent years as the leading cause of illness, disability and death in the oil-producing Arab countries.<sup>1</sup> In the

UAE, for example, in recent years, the prevalence of heart-disease risk factors such as obesity, high levels of blood cholesterol, and high blood pressure were 27%, 53%, and 37% respectively. These figures represent significant increases over previous years.<sup>1,2</sup>

## **Childhood obesity and type 2 diabetes**

Childhood obesity in this and some other regions has reached epidemic proportions. Over the past three decades, the number of children with overweight in the USA has more than



doubled; overweight and obesity in young people are increasing rapidly in the UK.<sup>4</sup> In the developing countries – where large numbers of people continue to adopt a lifestyle that is characterized by a high-fat, high-sugar diet and a reduction in physical activity – the situation is likely to be worse, contributing significantly to the high global prevalence of these conditions.

Only a few years ago, type 2 diabetes did not affect young people in the UAE; nowadays, the condition is seen routinely in children. This is due principally to the lifestyle changes mentioned above: an increasing incidence of obesity, driven by a general decline in physical activity and an increased reliance on processed food. Factors which further contribute to the

large numbers of young people with diabetes in Arab populations include:

- the relatively high percentage of consanguine relationships
- the elevated genetic risk for diabetes compared to many other populations in the world
- the widespread use of traditional clothing.<sup>1</sup>

#### **Climate, clothing and culture**

Traditional dress in the Gulf region is signalled as a contributing factor in the stark rise in the number of people with obesity. Men and women (or indeed boys and girls) who regularly wear jeans or trousers are able to perceive their own weight gain as their clothing becomes tight and uncomfortable. But an expanding waistline easily goes unnoticed in a

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loose-fitting voluminous robe, such as a 'dish-dash' – traditionally worn by men and women in Arab countries.

This serves to compound the negative effects of the widespread use of television and computers. As in many communities around the world, watching television is the main leisure activity in the Gulf region. Furthermore, the exceptionally high summer temperatures in countries such as the UAE often persuade people to stay indoors and avoid even light physical exertion. From June through to September, the days are hot and humid with

temperatures averaging over 40°C (110°F). In these conditions, people, understandably, often choose to ride in an air-conditioned car rather than walking even short distances.

In order to be effective, any strategies to promote health and prevent lifestyle-driven health conditions such as diabetes must challenge important socio-cultural obstacles. As in many African and Mediterranean communities, overweight is widely perceived as a desirable feature in the Arab countries, a sign of good health and financial success. A fundamental change is necessary in the way walking is popularly perceived: strictly the low-income transport option.

**Walking is widely perceived as the low-income transport option.**

#### **Awareness and education for all**

Human behaviour is strongly influenced by values and beliefs, and any significant change in this behaviour is difficult both to initiate and sustain. For health-care providers, promoting and supporting sustained lifestyle changes requires a range of abilities. Excellent communication skills are essential in order to develop and maintain understanding and trust in people who are affected by obesity and/or diabetes. Through open and meaningful communication, it is likely that the lifestyle advice offered by the health-care provider or through educational programmes and awareness campaigns will be understood and embraced.

Interventions, such as therapeutic health education, the modification of diet, and the promotion of exercise and home glucose self-monitoring remain the cornerstones of diabetes management. Accordingly, diabetes self-management training packages have been developed in the UAE. The challenge now is to package and consistently deliver these interventions in a way that is widely meaningful, and practical in terms of the time and resources required to reach the optimum number of people. We, the health-care providers, should play a central role in rising to this challenge. Our communication issues should be addressed and excellence achieved – as would be the case regarding any other aspect of our work.

#### **Impact on health care**

Childhood obesity is directly linked to a series of abnormalities in adult life, such as high blood pressure, high blood fat, and irregularities in insulin levels, as well as an increased risk of cardiovascular disease and diabetes.<sup>4</sup> If this epidemic goes unchecked, the burden on public health spending will grow as children with obesity become young people with diabetes, and the costly complications of their condition develop. Early prevention is clearly our best option.

In the UAE, the prevention of type 2 diabetes in young people through the reduction of childhood obesity remains a major public health challenge. The Ministry of Health has developed educational programmes to raise awareness amongst health-care providers about the prevention and management of diabetes.

Children and their families learn about the links between obesity and diabetes through school-based health education programmes.

While expectations for such programmes are limited due to the lack of diabetes educators and culturally appropriate materials in the region, primary school health education might hold the key to raising awareness amongst children and their families and teachers on the prevention of obesity and diabetes.

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