

Proposed studies in GCC region Overweight and obesity have become an epidemic with direct impact on health economics. Overweight and obesity is a complex disorder involving an excessive amount of body fat. The consequences of obesity are well studied in numerous scientific researches. It increases the risk of diseases and health problems, such as diabetes, heart disease, and high blood pressure. Overweight is diagnosed when the body mass index (BMI) is 25 or higher, while a value equal or greater to 30 is characterized as obesity. The BMI is calculated by dividing the weight in kilograms (kg) by the height in meters (m) squared.

Nowadays, obesity has become an epidemic. Around 41 million children under 5 years of age were affected by overweight or obesity in 2014 [1]. Almost 2 billion adults were overweight (of these over 600 million were obese) in the same year. According to the World Health Organization (WHO), childhood obesity is reaching alarming proportions in many countries and poses an urgent and serious challenge [2]. Obesity is also one of the main risk factors for the noncommunicable diseases [3]. The problem is that there is no progress in tackling childhood obesity [4]. Moreover, worldwide obesity has more than doubled since 1980. Overall, about 13% of the world’s adult population were obese in 2014. Obesity is estimated to be responsible for 2.8 million deaths each year worldwide [5]. Figure 1 depicts the prevalence of overweight by WHO region and Figure 2 shows the percentage of population being obese per WHO region [6].

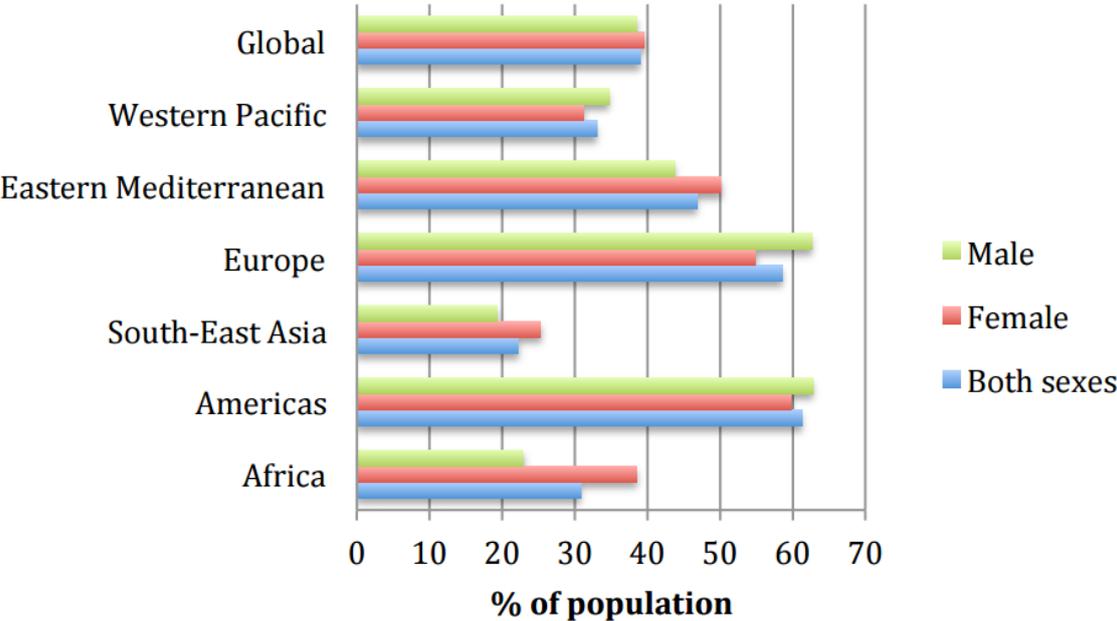


Figure 1. % of population being overweight in 2014 per WHO region

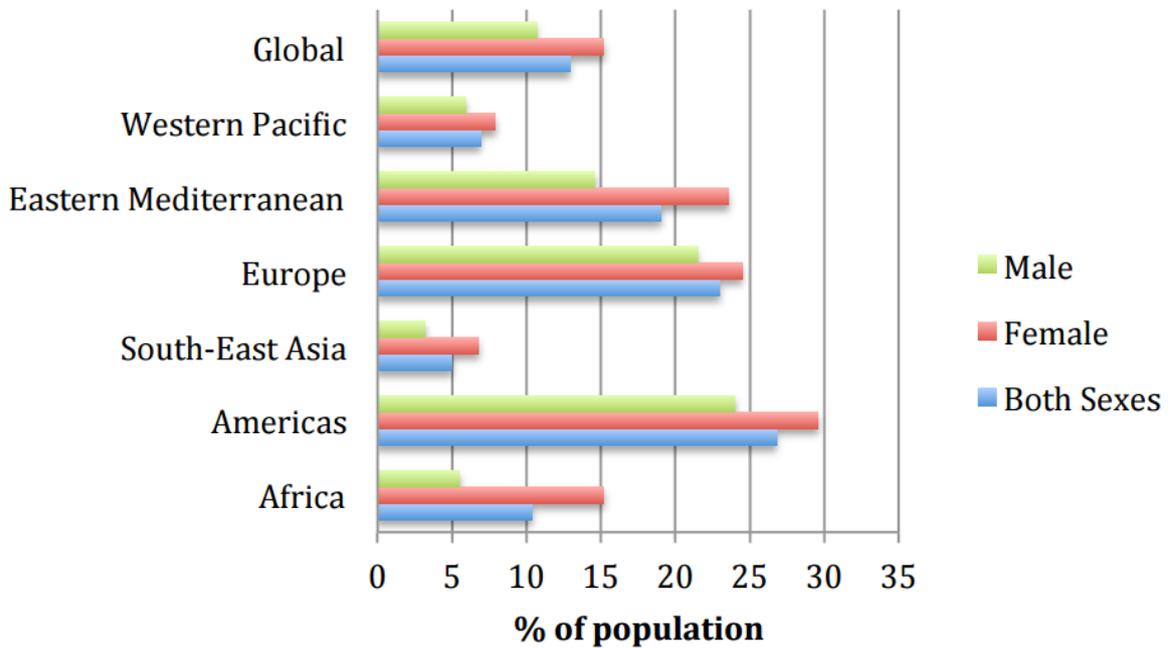


Figure 2. % of population being obese in 2014 per WHO region

As shown in the above figures, the data are not encouraging at all. Americas holds the reins in obesity (26.8% of the population) and overweight (61.3% of the population) followed by Europe (23% of population are obese and 58.6% overweight). Obesity-related conditions include heart disease, stroke, type 2 diabetes and certain types of cancer, some of the leading causes of preventable death [7]. This has a direct effect on the health economics. For example, the estimated annual medical cost of obesity in the US was \$147 billion in 2008 US dollars, and the medical costs for people who are obese were \$1,429 higher than those of normal weight [8]. Currently, it is estimated that obesity related costs will range from \$147 billion to nearly \$210 billion per year [9]. The prevalence of obesity and overweight is very well reported in the last issue of State of Obesity (September 2015), where they state that “If we fail to change the course of the nation’s obesity epidemic, the current generation of young people may be the first in American history to live shorter, less healthy lives than their parents.” [10].

According to the Harvard T.H. Chan, School of Public Health, the global failure to reverse obesity epidemic needs new ways of thinking [11]. More specifically, it needs policies based on healthy diets and smart foods, as well as awareness of the individuals in order to bear responsibility for their health. Although there may be genetic, behavioral and hormonal influences, obesity is highly related to the intake of more calories than the ones burnt from exercise and other activities. Inactivity, sedentary lifestyle, unhealthy diet, family, social and economic issues are some of the main risk factors of overweight and obesity. Obesity has a major impact on the overall quality of life of the individual. Depression, disability, sexual problems, social isolation, discrimination and lower work achievement are only some of the consequences. However, obesity is preventable. Even modest weight loss can improve health problems associated with obesity, while dietary changes along with increased physical activity and behavior changes can help a lot someone to lose weight. Alternatively, medications and bariatric surgery (i.e. laparoscopic adjustable gastric banding, gastric bypass surgery, gastric

sleeve, biliopancreatic diversion with duodenal switch, etc.) may be the solution in more serious cases [12, 13].

To help someone understand and make changes in his/her lifestyle and eating habits requires a multidimensional approach by a team of health professionals (e.g. dietitian, behavior counselor, obesity specialist, etc.). The appropriate treatment method for an individual has to be designed and customized according to his/her overall health and other needs that he/she may have. A critical factor is always the willingness to participate in such weight-loss plans because it requires commitment over long periods of time. Making healthier choices and cutting calories is one solution. This has to be accompanied however with increased physical activity in order to maintain the weight loss. Finally, a change in behavior is significant to help someone make lifestyle changes and lose weight and keep it off. This is again a tailor-made solution which is designed based on the findings resulting from studying the current habits, the factors, stresses or situations that may have contributed to obesity. Behavior modification may require counseling from a mental health or other professional or participation in support groups. One of the commonly problems faced is the weight regain after obesity treatment. The best way to prevent regaining is change of behavior and lifestyle. This needs someone to stay motivated, on course and to keep track of his/her physical activity. For this to be achieved is crucial for someone to surround himself/herself with supportive resources to help ensure his/her success.

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.

Obese children are more likely to develop a variety of health problems as adults [14]. These include:

- cardiovascular disease
- insulin resistance (often an early sign of impending diabetes)
- musculoskeletal disorders (especially osteoarthritis - a highly disabling degenerative disease of the joints)
- some cancers (endometrial, breast and colon)
- disability

A consequence of the prevalence of overweight and obese people is the high incidence of the disease associated with the condition – type 2 diabetes. Data from the International Diabetes Federation to mark World Diabetes Day in November last year showed that there were 803,900 diabetics in the UAE, about 19 per cent of the population. The obesity rate in the UAE is double the world average, according to a disease study report. Kuwait has the highest incidence of

obesity in the world with 42.8% of its population deemed overweight, and Saudis come in second with a little over 35% considered clinically overweight. The report notes that the prevalence of obesity in adults of 30-60 years in Saudi Arabia has increased by 1.5% for women and 4.1% for men annually. In Qatar and Kuwait, 35% and 36% of male; and 45% and 48% of female adults were found to be obese. Equally alarming are young people. In Kuwait, 21% of males and 18% of females aged 10-19 were obese. The Health Authority-Abu Dhabi (HAAD) expects healthcare costs for UAE nationals to rise fourfold by 2030. Indeed, among emerging markets, the UAE and Qatar spend the highest diabetes-related expenditures.

A United Nations report has ranked populations in the Gulf among the world's fattest and close to half of adults in Kuwait have been identified as obese. The GCC countries have some of the highest rates of lifestyle diseases in the world, with the International Diabetes Foundation last year forecasting that about 20 per cent of the population is afflicted by the disease.

Based on the above, we propose to conduct a study in the GCC population (focused on obesity) in order to map the current situation and propose actions and policies to be taken.

Another crucial issue for the GCC population is the rehabilitation needs arising due to: obesity, diabetes, traffic accidents, etc. There is a great need therefore to study these needs on rehabilitation compared to the existing facilities (i.e. rehabilitation hospitals, etc.) and the professional level of the employees in these facilities.

References

[1] UNICEF, WHO, World Bank. Levels and trends in child malnutrition: UNICEF-WHO-World Bank joint child malnutrition estimates. UNICEF, New York; WHO, Geneva; World Bank, Washington DC: 2015.

[2] WHO. Report of the commission on ending childhood obesity. World Health Organization 2016, ISBN 978 92 4 151006 6. Available: http://apps.who.int/iris/bitstream/10665/204176/1/9789241510066_eng.pdf?ua=1

[3] <http://www.who.int/mediacentre/factsheets/fs355/en/>

[4] Roberto CA, Swinburn B, Hawkes C, Huang TTK, Costa SA, Ashe M, et al. Patchy progress on obesity prevention: emerging examples, entrenched barriers, and new thinking. Lancet. 2015;385:2400–9.

[5] Who.int, "WHO | 10 facts on obesity", 2016. [Online]. Available: <http://www.who.int/features/factfiles/obesity/en/>

[6] http://www.who.int/gho/ncd/risk_factors/overweight/en/index1.html

[7] NHLBI, "The Practical Guide Identification, Evaluation, and Treatment of Overweight and Obesity in Adults", National Institutes of Health, National Heart, Lung, and Blood Institute, NIH Publication No. 00-4084

[8] Published online before print July 2009, doi: 10.1377/hlthaff.28.5.w822, Health Aff September/October 2009 vol. 28 no. 5 w822-w831. Available: <http://content.healthaffairs.org/content/28/5/w822.full.pdf+html>

[9] <http://stateofobesity.org/rates/>

[10] Trust for America's Health & Robert Wood Johnson Foundation, The State of Obesity: Better Policies for a Healthier America 2015, Issue Report, September 2015, Trust for America's Health & Robert Wood Johnson Foundation, Available: <http://stateofobesity.org/files/stateofobesity2015.pdf>

[11] <http://www.hsph.harvard.edu/news/press-releases/global-failure-to-reverse-obesity-epidemicdemands-new-ways-of-thinking/>

[12] Niddk.nih.gov, "Bariatric Surgery for Severe Obesity", 2016. [Online]. Available: <http://www.niddk.nih.gov/health-information/health-topics/weight-control/bariatric-surgerysevere-obesity/Pages/bariatric-surgery-for-severe-obesity.aspx>

[13] American Society for Metabolic and Bariatric Surgery, "Bariatric Surgery Procedures - ASMBS", 2016. [Online]. Available: <https://asmbs.org/patients/bariatric-surgery-procedures>

[14] <http://www.who.int/end-childhood-obesity/facts/en/>