Trends Analysis and Predictive Prevalence of Global Adult’s Obesity 2010-2016, Burden of Socio Economic Contexts

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Abstract

Background

Prevalence rates of Obesity and overweight have been increased worldwide in the last four decades; it is almost about to reaching a prevalence of 10-14% among the world's adult population as shown in year of 2008. More to that, prevalence rates of obesity are becoming higher in both upper-middle income and high income countries, it is expected and predicted to be keep increasing rapidly in developing nations.

Objectives

To study the trend analysis of obesity among adult cohort for the period 2010-2016) based on socio-economical context. To study the predictive prevalence of obesity for the coming years.

Methodology

The study has been carried out utilizing secondary data reported by WHO and World Bank data base (Global Health observatory data repository) updated on 2017, (http://www.apps.who.int/gho/data), data based coved obesity crude rate for cohorts group > 18 years, and their estimated BMI was > 30 as per WHO classification and world Bank classification , the study design to predict the adult obesity prevalence for the coming 5 years in the light of last 7 years trends , the data has been categorized based on gender trends over the years (2010-2016). The study approach to linking obesity trend to socio- cultural and economic developments and contexts at national, regional and global level to achieve deep understanding, identifying the gaps and proposing containment strategies.

Results

The current study revealed that about 5.8% of all adult in living in low income countries have got obesity in 2016, while was 4.4% during 2010, with increase in prevalence of about 1.4% over the last 7 years the study results reflected that about 8.4 of total adult females living in low income countries have got obesity as per 2016 and about6.5% of them were used to be obese during 2010with increase of about 2% during 7 years. The study revealed that about 3.1% of total adult male were obese during 2016 and about 2.2% where so during 2010 with an average of increment of 0.9 during the last 7 years (2010-2016) females are obese in UAE as of 2016 while the prevalence of obesity among adult female was 31% in 2010 with a difference of about 7.8% over that the period (2010-2016) as reflected in Figure (1).

As for the adult obesity data related to high income countries at global base, the current study showed that about 25.9% of total adults were revealed obesity in high income countries as per the year of 2016 and the prevalence rate used to be 22.7% during 2010 with up owing curve of about 3.2% throughout the last 7 years, while the adult obesity data related to male revealed that during 2016 prevalence of obesity was 24.9% and during 2010 was 21.9% with difference of almost 3% more during the last 7 years , as for adult obesity prevalence related to female segment , the present study showed that the prevalence was 26.2% during 2016 and 23.4% during 2010 with difference of 1.8% through out the period (2010-2016).

Conclusion

Overall increase in the prevalence of adult obesity in UAE has been increase over the period 2010-2016 by almost 7.4 %, up going in a steady state , and it is highest than the average mean of obesity prevalence increment over the same period in the east Mediterranean region population reflecting weak response of health care system, lagging back of social mobilization and absence of effective intervention strategies.
Introduction

Prevalence rates of Obesity and overweight have been increased worldwide in the last four decades, it is almost about to reaching a prevalence of 10-14% among the world’s adult population as shown in the year of 2008 [1]. More to that, prevalence rates of obesity are becoming higher in both upper-middle income and high-income countries [2]. It is expected and predicted to keep increasing rapidly in developing nations [3]. Yet, body mass index (BMI) still utilized as a most common method of assessing obesity and is a measure of weight that adjusts for height [4] and correlates highly with body fatness [5]. Waist circumference (WC). On the other hand abdominal fat is a surrogate measure and is suggested to be a better predictor for certain Noncommunicable diseases [4]. Obesity proved to be significantly relevant to a multitude of health conditions including diabetes, hypertension, ischemic stroke and heart disease, many types of cancers, osteoarthritis, and reproductive conditions [4]. Consequently, obesity is currently recognized as among the leading factors for global morbidity and mortality and causes more global deaths than underweight [6].

Due to major economic development and growth, urbanization, and the subsequent changes in lifestyle are among the factors driving the global obesity epidemic [7]. The rapid speed that the above factors advanced in some wealthy countries like countries of the Gulf region due to the discovery of oil and accumulation of oil returns on per capita income and gross national incomes, have contributed significantly to exacerbated the obesity epidemic in these countries [8]. Similar is applied to western countries. The state of Kuwait ranks in the top 7% of countries worldwide with the highest adult obesity prevalence rates according to the International Comparisons data from the WHO Global InfoBase [9], and is in the top 3% of countries worldwide with the highest diabetes prevalence rates according to recent data from the International Diabetes Federation [10].

In Canada, the prevalence of obesity began to increase steadily in the 1980s. According to the 1985 Canadian Health Promotion Survey, about 6.1% of Canadian adults were found to be obese, compared with 18.1% reported from the findings of the 2010 Canadian Community Health Survey (CCHS) [11-13]. These national figures mask the substantial provincial variations that exist [14, 15].

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Methodology

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Results

The current study revealed that about 5.8% of all adult in living in low income countries have got obesity in 2016, while was 4.4% during 2010, with increase in prevalence of about 1.4% over the last 7 years the study results reflected that about 8.4 of total adult females living in low-income countries have got obesity as per 2016 and about6.5% of them were used to be obese during 2010 with increase of about 2% during 7 years. the study revealed that about 3.1% of total adult male were obese during 2016 and about 2.2% where so during 2010 with an average of increment of 0.9 during the last 7 years (2010-2016) females are obese in UAE as of 2016 while the prevalence of obesity among adult female was 31% in 2010 with a difference of about 7.8% over that the period (2010-2016) as reflected in.
As for the adult obesity data related to high income countries at global base, the current study showed that about 25.9% of total adults were revealed obesity in high-income countries as per the year of 2016 and the prevalence rate used to be 22.7% during 2010 with up owing curve of about 3.2% throughout the last 7 years, while the adult obesity data related to male revealed that during 2016 prevalence of obesity was 24.9% and during 2010 was 21.9% with difference of almost 3% more during the last 7 years, as for adult obesity prevalence related to female segment, the present study showed that the prevalence was 26.2% during 2016 and 23.4% during 2010 with difference of 1.8% throughout the period (2010-2016) as shown by Figure (2).

Discussions
The present study proved that obesity rate among adult population in low-income countries were significantly low 5.8% compare to prevalence rate of obesity among high-income countries populations was 25.9% the figures showed keep increasing on steady sate along the period 2010-2016, reflecting maximizing population based problem over the time, yet in spite of that there much increases trend in obesity maximizing problem, but still the rate in high-income countries reflecting higher levels comparing to the average mean of obesity prevalence increase in low-income countries, this steady increase trend is in similar to other finding reflected by a study carried out in Canada [16]. Which stated that Since 1985, the prevalence of obesity has increased by 200% in Canada, with the highest increases occurring in the excessive weight categories. By 2019, it is predicted that about 21% of the Canadian adult population will be obese. Interprovincial variations show continued variation in the prevalence of obesity. With few exceptions, over the past 10 years, the incidence of obesity increased in all provinces, for both sexes, and across all age groups, but not at the same rate. An improved understanding of why such substantial interprovincial variations exist is necessary, including a focus on evaluating existing policies, programs and approaches to the prevention, management, and treatment of obesity.

Predictive Future Adult Obesity Prevalence in Low and High-Income Countries
Predicted crude adult obesity prevalence in LIC (low income countries) is expected to increase to reach up to 7.3% 2025 among adult population while it is predicted to be keep up going among adult population in the high income countries to reach up to almost 30% (one third of population).

Conclusions
Overall increase in the prevalence of global adult obesity in has been increased over the period 2010-2016 by almost 3.2%, up owing in a steady state, and it is highest than the average mean of obesity prevalence increment over the same period in low-income countries population reflecting the burden of high economy returns and high percapita income on Population BMI, and the pressure of modern lifestyle including high energy diet consumption.

Recommendations
Addressing the gap of economy infrastructure impact on high diet consumption and changing of lifestyle should always stay as a key factor through Activating global obesity task force framework, including multidispleanary stakeholders engagement, policy development, population base intervention initiatives, sustainable social mobilization and legislation enforcement at high energy diets, deep
understanding of socio-cultural and economic context of the country through gaps identification and bridging will be cost-effective action.

**Ethical Issues**

Ethical standards have been applied as per international ethical protocol.

**Conflict of Interest**

Authors have been declaring that there is no conflict of interest.

**References**


