



OVERWEIGHT PROBLEM IN USA: A PERSISTENT CHALLENGE DESPITE NUTRITIONAL ADVANCES

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ABSTRACT

The United States faces a growing public health crisis with rising rates of overweight and obesity, despite advancements in nutritional science, dietary supplements, and prescription weight loss medications.

This article explores the paradox of increasing obesity amidst seemingly abundant solutions, supported by recent statistics and scientific insights. It examines factors such as dietary habits, physical inactivity, socioeconomic influences, and psychological aspects contributing to the obesity epidemic. The role of nutrition, the efficacy of dietary supplements and weight loss drugs, and technological innovations are analyzed. Additionally, government interventions, public health campaigns, and community programs are assessed for their impact. Despite the challenges, future directions emphasize the need for integrated approaches combining technological, psychological, and sociocultural factors to effectively address the root causes of obesity and promote sustainable weight management.

KEYWORDS : obesity, dietary habits, drugs, supplements, nutrition, surgery

INTRODUCTION

The United States of America is facing an ever-increasing public health crisis characterized by increasing prevalence of overweight and obesity among its population. In United states 2 in every 5 adults is suffering from obesity. Childhood obesity rate is also increasing at alarming rate. By statistics available at Center of Disease Control (CDC), USA, 1 in 5 children suffer from obesity. The economic burden of this disease can be in range of 100-150 billion USD in direct and indirect costs. Obesity is related with several health risk factors including diabetes mellitus (Type II diabetes), heart disease, hypercholesterolemia, stroke, arthritis, hyperglycemia and even sleep apnea. Obesity is also linked to higher rate of occurrence of certain types of cancers (1).

The problem of overweight and obesity has been increasing over the decades. In 1960-1962 survey 13.4% adult population (age from 20 to 74) was found to be obese, this number increased to 42.8% in 2017-2018, this is a threefold increase (fig 1). This statistic underscores a troubling trend that, despite better knowledge and tools at our disposal, more Americans are becoming overweight or obese. Obesity rates show significant variation across different age, race, and socio-economic demographics, indicating a complex interplay of factors contributing to this health issue.

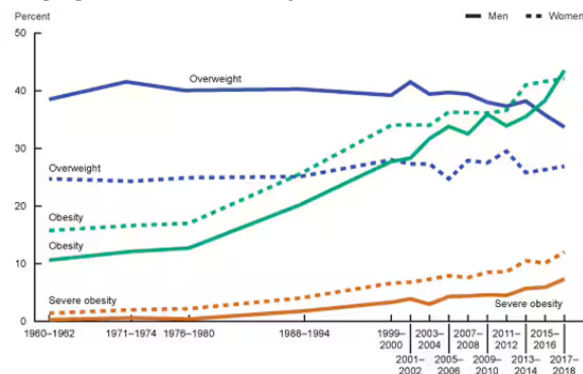


Fig 1: Age adjusted obesity rates in adult population in US between 1960/62- 2017/18 (source: National Center for Health Statistics, National Health Examination Survey and National Health and Nutrition Examination Surveys)

Factors Contributing to Overweight Issues

Multiple factors contribute to the overweight crisis in America. Predominantly, dietary habits such as increased consumption of high-calorie, low-nutrient fast foods have been implicated. Physical inactivity is another significant contributor, exacerbated by modern conveniences and sedentary

lifestyles (2). Additionally, socioeconomic factors play a crucial role, as lower-income individuals often have limited access to healthier food options and fewer opportunities for physical activity (2).

Nutritional science has made significant strides in understanding what constitutes a healthy diet, yet obesity rates continue to climb. This paradox can be partly explained by the widespread availability of processed foods and a cultural shift towards quick, convenient meals that often lack essential nutrients. Moreover, while nutritional guidelines have evolved to promote healthier eating habits, adherence remains low among the general public. In a systematic review published in 2017, authors noted significant positive co-relationship between consumption of sugar and artificially sweetened soda consumption and obesity (3).

Weight Loss Drugs

There are several FDA-approved drugs on the market for weight loss. These medications can be effective for short-term weight loss when combined with lifestyle changes. However, they often come with side effects and are not suitable for everyone. The long-term efficacy and safety of these drugs remain under scrutiny, and they are not a magic solution for the obesity epidemic. Recently a drug Ozempic caught hold of interest of population. In a published clinical trial, it was reported that more participants in the semaglutide group lost >5% body weight compared to placebo group (4).

Supplements and Their Impact

The market for dietary supplements purporting to aid weight loss is booming, yet the effectiveness of such supplements varies widely. Many supplements are not rigorously regulated, leading to potential safety concerns and misconceptions about their efficacy. Studies show that while some supplements can offer marginal benefits, they are not a substitute for fundamental dietary and lifestyle changes. Products containing extract of garcinia cambogia, Coleus forskohlii, green tea, green coffee bean, chromium picolinate, bitter orange extract and recently certain strains of probiotics have found their place in the weight loss market. An estimated 15.2% US adult population was found to have used dietary supplement for weight loss. (5) Many supplements contain stimulants like caffeine or guarana and hence their safety for long term use is of concern.

Psychological Aspects of Eating and Weight Gain: Emotional Eating syndrome

Eating behaviors are significantly influenced by psychological factors, including stress and emotional well-being. Emotional eating, where individuals eat to cope with

emotional distress rather than hunger, is a common barrier to effective weight management. Addressing the psychological underpinnings of eating habits is crucial for sustainable weight loss. It is important to educate young teens and adults about finding coping mechanism for negative emotions to avoid falling in trap of emotional eating syndrome. (6)

Technological and Innovative Solutions

Innovation in technology offers new avenues for combating obesity through apps and wearables that track physical activity and caloric intake. Telemedicine and online consultations provide accessible platforms for nutritional counseling and support, although their long-term impact on weight loss is still being evaluated.

Government and Policy Interventions

Government interventions have seen varying degrees of success. Policies such as taxing sugary drinks, mandating calorie counts on menus, and subsidizing healthier food options aim to alter consumer behavior. However, these initiatives must be part of a broader, multi-faceted approach to be effective. Sugar taxes have longer history, earliest documented in 1920s in Denmark. While those earlier measures were more for fiscal measures, in recent times, Sugar -Sweetened Beverages Taxation has been one such tool to combat obesity. However, studies show that impact of such taxation can only benefit when there is effort to educate consumers, increase access to non-sweetened food. (7)

Public Health Campaigns and Education

Public health campaigns like "Let's Move!" have sought to raise awareness about the importance of healthy eating and physical activity. First lady Michelle Obama in 2010 launched program "Lets Move" to address childhood obesity (8). Although these campaigns have achieved some public engagement, their overall impact on reversing obesity trends has been limited. Ongoing efforts are needed to reinforce and expand these educational initiatives.

Future Directions

Looking forward, there is a need for continued research into effective strategies for preventing and managing obesity. Innovative approaches that integrate technological, psychological, and sociocultural factors are likely to be the most effective. Researchers and policymakers must work together to develop interventions that address the root causes of obesity.

CONCLUSION

The overweight problem in the USA is a multifaceted issue that requires a comprehensive approach encompassing diet, lifestyle, psychological support, and policy interventions. While the tools to combat this epidemic exist, their effectiveness depends on widespread adoption and implementation. Continued efforts are necessary to address the underlying factors contributing to obesity and to promote a healthier future for all Americans.

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