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# Time to Revisit Dietary Practices in Young People: **An Opinion Paper**

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#### **Keywords:** Diet, Adolescents. Cardiovascular Disease CVD.

### Abstract

Unhealthy diet is a global risk factor for cardiovascular disease and all-cause mortality across all regions of the world. A combination of healthy diet and active lifestyle is associated with decreased cardiovascular disease (CVD) risk in adolescents and later in life. This opinion piece explores dietary practices among adolescents and concludes that sedentary behaviours and poor dietary practices characterized by increased consumptions of sweetened beverages such as soda and fast foods is on the rise among adolescents. Unfortunately, these practices are characterized by increased BMI and risk of developing CVDs in future. Strategies to revisit dietary practices among adolescents are urgent to mitigate the increasing burden of CVDs in adolescents and in later life.

#### Revisiter les pratiques alimentaires chez les jeunes : un avis.

#### Résumé

Une mauvaise alimentation est un facteur de risque de maladies cardiovasculaires et de mortalité dans toutes les régions du monde. Une combinaison d'une alimentation saine et d'un mode de vie actif est associée à une diminution du risque de maladie cardiovasculaire (MCV) chez les adolescents et plus tard dans la vie. Cet article d'opinion explore les pratiques alimentaires chez les adolescents et conclut que les comportements sédentaires et les mauvaises pratiques alimentaires caractérisés par une consommation accrue de boissons sucrées telles que les sodas et les fast-foods augmente chez les adolescents. Malheureusement, ces pratiques se caractérisent par une augmentation de l'IMC et un risque de développer des maladies cardiovasculaires à l'avenir. Les stratégies qui visent à revoir les pratiques alimentaires chez les adolescents sont urgentes pour atténuer le fardeau croissant des maladies cardiovasculaires chez les adolescents et plus tard dans la vie.

Mots clés: Alimentation. adolescents, MCV

## Background

#### **Global Burden of Poor Dietary Practices**

Globally, diets are not getting healthier (1). Across the world, people are increasingly becoming sedentary and consuming energy-dense meals that are high in saturated fats, trans fats, sugar, and salt. Simultaneously, they are consuming less fruits and vegetables, as well as fewer dietary fibers (such as whole grains), both of which are important components of a healthy diet (2). Unhealthy diet is a global risk factor for cardiovascular disease and all-cause mortality across all regions of the World (3). The proportion of premature deaths attributed to dietary risks is highest in Northern America and Europe (31% each), and lowest but on the upward trend in Africa (17%) (1). According to the World Health Organization, the amount of dietary salt (sodium chloride) consumed is an important determinant of blood pressure levels and of hypertension as well as overall cardiovascular risk (4). It has been reported that in many countries, most people consume far more salt than is recommended mainly through processed foods and foods eaten outside of homes (4).

## **Dietary Practices in Children and Adolescents**

The World Health Organisation defines young people as adolescents (10-19 years) and youth (15-24 years). Young people are becoming more independent in their eating habits, more subject to peer pressure, and less likely to eat healthy meals (5). The consumption of sweetened beverages such as soda and fast foods such as snacks are linked to a larger BMI gain and are risk factors for overweight and obesity (6, 7). These dietary practices are further exacerbated by parental factors such as their affordability potential, lack of knowledge, using food as rewards and child preferences; and environmental factors such as advertising; all of which increase intake of obesogenic diets in children and adolescents (8).

In Europe, the widespread socioeconomic differences between the upper and lower classes are evident even in diets whereby children and adolescents from lower socioeconomic class and impoverished locations are more likely to be exposed to poor diets than their peers from more privileged classes (9, 10). A study that followed up children for six years in Sweden found that diets remain fairly stable over time (11). In England and Europe, teenagers are the biggest consumers of sugarsweetened drinks (10). A combination of healthy diet and active lifestyle is associated with decreased CVD risk in adolescents (12).

In Sub-Saharan Africa, urbanization is changing many aspects of livelihoods and food systems (13).

Increased availability and access to, and consumption of energy-dense foods such as sugars and fats, as well as sedentary activities, go hand-in-hand with typical urban lifestyles, technological advancements, and improvement in economic status (14, 15). A study of the dietary intake of school children and adolescents aged 6 to 19 years in developing countries found a rising trend of high-energy snacks and beverages consumption in urban areas (16). In Uganda, a study conducted in Buikwe and Mukono Districts reported that 88.6% were eating unhealthy diet with inadequate fruit and vegetable consumption (17). Another study reported that half of the adolescents do not have adequate intake of fruits and vegetables, yet a number of them were having excessively sedentary lifestyles (18). A study done among young people aged 12-24 years in Uganda and Tanzania revealed that a third of all young people that had pre-hypertension were having diet related to excess weight (19). The same study showed that obese students had nearly sevenfold increased odds of high BP compared to those with normal BMI.

# **Impact of Poor Dietary Practices**

Lack of dietary diversity has a demonstrated role in increasing over-nutrition (20). A study showed that 86% of all branded advertising around schools in Uganda promoted unhealthy foods (21). In South Africa, research has shown that unhealthy foods brought to school are double in number than the healthy foods and 70% who buy at school buy unhealthy foods (22). Among

university students in South Africa, close to 70% consume less than one fruit or vegetable per day (23). A five year follow-up study on the dietary patterns among adolescents reported poor eating habits in the home, school and community environments with a high adolescent propensity for foods that were energy dense and micronutrient poor (24). This study revealed that unhealthy dietary patterns are well established by 13 years of age. Adolescents who eat the main family meals and have irregular breakfast patterns are more likely to be overweight or obese, with girls more likely to snack than boys (25).

Dietary-related obesity and overweight have virtually tripled in the previous fifty years (26). Excess body weight accounted for about four million deaths and 120 million disability-adjusted life-years worldwide in 2015 (27). In 2016, there were approximately 340 million children and adolescents aged 10 to 19 who were overweight or obese (26). The rate of increase in childhood obesity in many countries has been greater than the rate of increase in adult obesity (27). This has resulted in the emergence of obesityrelated co-morbid disease entities such as hypertension, early signs of cardiovascular disease, insulin resistance, and psychosocial consequences at a young age (28).

Research has shown that a shift towards an unhealthy BMI is common among school age children as they progress through school into their adolescent years (29). According to Public Health England, about a quarter of children are overweight when they begin primary school. This number rises to a third by the time they graduate from year six, when they are 10-11 years old (30, 31).

According to an Italian research, recent drug use was more common in overweight teenagers, especially those who had underlying social characteristics such as drugabusing acquaintances and serious issues with their parents and school (32). Other studies have found a bidirectional association between mental health difficulties and obesity, with obesity affecting students' self-esteem and mental health illnesses like bipolar disorder increasing the likelihood of acquiring obesity (32-34).

In the WHO European Region, 1 child out of 3, is overweight or obese (35). Research findings suggest that there is even a higher prevalence of over 37% of overweight and obesity in children and adolescents residing in Southern Europe (36). However, country-specific evidence has shown this burden is unequally distributed within countries in Europe. Higher obesity rates are usually found in children and adolescents from lower socioeconomic groups and disadvantaged areas (9, 10). In UK, the NHS is estimated to spend £6.1 billion each year treating obesity-related ill health (37). The prevalence of childhood obesity is twice as high in the most deprived areas in England, compared to the least deprived areas and this socio-economic disparity gap in overweight and obesity is widening (30, 38, 39). In France, obesity prevalence of 1.3% was reported in children from the upper class and 5.8% in children from the lower (working) class families (40). Therefore, interventions for prevention of obesity in low resource context and socially disadvantaged settings is warranted.

In Sub-Saharan Africa, obesity in children and adolescents is increasing at an alarming rate, and it is mostly linked to inactivity, bad diets, high socioeconomic position, gender, and a high body mass index (41). There is an emerging double nutritional threat to child and adolescent health in low- and middle-income countries; that of deficiency-related malnutrition and overweight and obesity (42). In South Africa, 27% of the women are overweight and 41% are obese while among the men, 20% are overweight and 11% are obese (BMI of 30 or above) (43). Obesity in women is shown to start at a young age; and 1 in 10 women is obese at the ages 15 to 24 years (44). In Uganda, the prevalence of overweight/obesity is 25.2 % (45). Females have a higher prevalence of overweight and obesity than males, and overweight is highest among young women (46, 47).

# Conclusion

Tackling and addressing dietary practices and guidelines holds the key for addressing the rising burden of noncommunicable diseases among young people now and in their adult ages.

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