

# **Title Prevalence and Risk Factors for Obesity among School aged Children in Nairobi province, Kenya**

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## **Abstract:**

Obesity is a complex condition that is caused by a mixture of medical, psychological and environmental factors. Childhood obesity is characterized by rise in the number of fat cells. It is one of today's visible yet neglected Public Health problems with serious health implications such as type2 diabetes, hypertension and cardiovascular diseases that affect individuals in all ages and socio-economic groups. This was a cross-sectional study aimed at investigating the prevalence of obesity and factors that contribute to its occurrence among school-aged children in Nairobi. Objectives of the study were: to establish the prevalence of obesity among school aged-children in Nairobi; to determine the dietary practices of children in the target population; to determine the relationship between dietary practices and obesity; to assess the activity levels of the school aged children. Purposive sampling was used to select the target geographical area, cluster sampling was used to select the eight divisions and gender, simple random sampling was used to identify twenty four schools, stratified sampling was used to select the class levels (1-4) and systematic sampling was used to select the target population (400 pupils). Data were collected by use of Structured questionnaire, anthropometric data sheet and interview schedule. Statistical package for social sciences (version II), Epi-info, Nutri-Survey were used to analyze data. Pearson's Product moment correlation and chi-square was used to test the hypotheses. Results from the test indicated that there was a significant relationship between type of school and obesity ( $\chi^2=49.626$ ,  $p<0.05$ ), there was no significant relationship between gender and obesity ( $\chi^2=2.867$ ,  $p>0.05$ ), there was a significant relationship between leisure activity and obesity ( $\chi^2=4.094$ ,  $p<0.05$ ) and there was a significant relationship between meals consumed for dinner and obesity ( $\chi^2=71.123$ ,  $p<0.05$ ). Pearson product moment correlation results indicated that there was a significant but very weak negative correlation between time spent on physical activity and obesity. ( $r=0.2$ ,  $p=0.038$ ). Prevalence of obesity among school-aged children was found to be 25.6% with more boys (27%) being obese than girls (26%). Factors that were associated with the development of obesity were low levels of physical activity and consumption of foods that are dense in carbohydrates and fats. In schools studied 58% of the pupils ate three times in a day although majority of the respondents from public schools had fewer meals in a day than those in private schools. Respondents from public schools were found to be more active than those in private schools. 40% of the pupils from public schools spent their time playing while 39% spent their leisure time watching television. Fried foods (58.5%) and chocolates (58.3%) were the most highly consumed snacks while fresh juice (4%) was the least consumed snack. This study concludes that prevalence of obesity among school aged children in the city of Nairobi is quite high which compares to rates in most developed countries. There is need to plan for most efficient interventions not only to ensure that we are food secure but also maintain healthy lifestyles and reduce the prevalence of obesity among school-aged children.