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## Childhood Obesity in Japan: Trends in Obesity Prevalence among Japanese Kids under 17 Years Old from 2007 to 2016

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Abstract: Childhood obesity has been, for decades, a very serious public health problem worldwide. Some Asian countries have already reached alarming rates, as lifestyle changed dramatically in this part of the world. In many concerned countries, strategies including educational, promotional and awareness-raising activities have been established to combat obesity within kids. Objective: To estimate the obesity and also the underweight trends of Japanese kids from 5 to 17 years, by single year of age and by gender, over the last decade. Methods We used the data from the cross-sectional annual Nationwide surveys (National Nutrition Survey, Japan, Ministry of education, culture, sports, science and technology) conducted from 2007 to 2016. We compared trajectories of obesity prevalence, with the data on sex and age groups. We also analyzed energy and macronutrients intakes of Japanese kids using Ministry of Health, Labor and Welfare-Japan annual data, from 2007 to 2014. Results: From 2007 to 2016, Boys obesity was higher than Girls obesity for the over 6 YO participants. Both Boys and Girls obesity trends had 2 peaks of prevalence at (11-13 YO) and then at (15-16 YO). From 2007 to 2012, Kids obesity decreased considerably in both sex and all year of age; then obesity decline was more modest till 2016.On the other side, Kids underweight prevalence increased in both sexes. The macronutrients analyze couldn't show an evident association between obesity trends and foods intake. Conclusion: Japanese kids' obesity has been decreased since 2007, in opposition to some other countries reports. We didn't find an observed association with food intake using Health Ministry data; we need further investigation to estimate energy intake, lifestyle and physical activity by year of age to know whether there is any possible relation.

Keywords: childhood, Japan, obesity, underweight

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