

# 13<sup>th</sup> Euro Obesity and Endocrinology Congress and 16<sup>th</sup> World Congress on Nutrition and Food Chemistry

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## Marked increase in the prevalence of overweight in children and adolescents in the Seychelles between 1998 and 2016, but BMI did not increase in nearly half of the population

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**Objectives:** We assessed changes in the distribution of BMI-for-age between 1998 and 2016 in children and adolescents from the Seychelles, a rapidly developing small island state in the Indian Ocean.

**Methods:** Examination surveys were conducted annually between 1998 and 2016 on all students of four grades (crèche 2, primary 4, secondary 1 and 4) in all schools. Obesity, overweight and thinness were defined by the international obesity task force criteria.

**Results:** A total of 70,187 observations were analysed. Comparing data in 1998-2000 and 2014-2016, the prevalence of overweight or obesity increased from 9.6% to 19.6% in boys and from 15.1% to 23.6% in girls. In contrast, the prevalence of thinness grade 3 increased from 1.4% to 2.6% in boys and from 2.2% to 3.2% in girls. While mean BMI increased by 5% between 1998-2000 and 2014-2016, marked increases in BMI were mostly seen in the upper range of the BMI distribution: -1.7% at percentile 5, -0.8% at percentile 10, 0.3% at percentile 25, 2.5% at percentile 50 (median), 7.4% at percentile 75, 12.7% at percentile 90 and 13.3% at percentile 95. Consistent with the increasingly positively-skewed distribution of BMI over time, the number of children with morbid obesity increased considerably.

**Conclusions:** The prevalence of overweight and obesity in children and adolescents of the Seychelles increased markedly over an 18-year period, emphasizing the need for population interventions to halt the rising burden of obesity. However, the secular increase in BMI occurred mostly in approximately one half of the population, with a non-decreasing prevalence of thinness and a worryingly increasing prevalence of morbid obesity. Further studies should aim to identify risk and preventive factors underlying these unequal secular trends in the population which may bear significance for weight control strategies.

### Biography

Rim Aly is a final year Medical student at University of Manchester who is interested in Public Health. Her passion and motivation to learn more about social and preventive medicine led her to travel to Lausanne, Switzerland and participate in research projects including the analysis of population trends in childhood obesity. She has also presented research on a variety of health topics including the effect of exercise on depressive symptoms, mental health in care home residents and public awareness of travel health.

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