

# Trends in cardiometabolic parameters among Spanish children from 2006 to 2010: The Cuenca study

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**Objective:** The aim of this study was to examine the trends in cardiometabolic risk factors among schoolchildren in Cuenca, Spain, from 2006 to 2010. **Methods:** Data were taken from two cross-sectional surveys conducted in 2006 and 2010 among schoolchildren aged 8–12 years from 20 public schools in the province of Cuenca. The final sample consisted of 2148 participants with measured anthropometric variables, biochemical assessment, and blood pressure. **Results:** We observed an increase in mean serum total cholesterol (8.5 mg/dL and 10.7 mg/dL), LDL-cholesterol (13.7 mg/dL and 17.3 mg/dL), triglycerides (3.6 mg/dL and 2.6 mg/dL), fasting insulin (1.2  $\mu$ U/mL and 0.3  $\mu$ U/mL) and HOMA-IR (0.2 and 0.02) and a decrease in mean serum HDL-cholesterol (4.4 mg/dL and 5.7 mg/dL), systolic blood pressure (3.8 mmHg and 5.4 mmHg) and diastolic blood pressure (0.8 mmHg and 2.0 mmHg) in both sexes. In girls, mean arterial pressure (3.2 mmHg) also decreased in this period. In addition, we found an increase in the prevalence of adverse total cholesterol concentration ( $\geq$ 200 mg/dL) (7.8% and 8.9%), HDL-cholesterol concentration ( $<$ 40 mg/dL) (1.9% in boys and 3.5% in girls) and LDL cholesterol concentration ( $\geq$ 130mg/dL) (4.8% and 5.8%) in boys and girls, respectively. **Conclusions:** There has been a worsening of the lipid profile in schoolchildren from Cuenca, independent of weight status and age. © 2017 Wiley Periodicals, Inc.