Introduction: Worldwide, childhood obesity is emerging as a major health problem also in rural populations. Effective prevention of adult obesity will require better management of infancy obesity.

Objective: Assess obesity status in a sample of rural and urban school children aged 5-19 years old.

Methodology or experience description: Body height and weight were measured in a sample of 1183 Brazilian schoolchildren living in rural (n=535) and urban areas (n=648) of Minas Gerais (Southeast of Brazil). BMI-for-age z-scores (BMI-z-scores) were calculated with AnthroPlus WHO. Obese (Ob)= [2 z-score ≤BMI ≤5 z-score].

Results: Among children (aged 5-10 years old), prevalence rate of Rural Ob was higher than expected (27%) but still smaller than Urban counterparts 34% (p < .05). The difference was more visible in the teenager group (aged 11-19 years old) where the prevalence rate of Rural Ob was 21.7% and Urban Ob 36.5% (p < .001). Prevalence of extreme obesity was the same between the groups (2.1% vs. 2%, no differences between gender).

Conclusions or Hypothesis: Previous studies have shown that Brazilian rural children are leaner than urban children. The fast increment adiposity in rural children suggests a consumption of unbalanced diet and decrease physical activity. Brazil needs effective public health interventions in the prevention of obesity also in our rural areas. It has to be considered an important issue due its long-term impact on the public health.