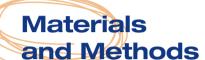
## Skipping breakfast is a risk factor for overweight in ethnic minority children (EMC) too

Giorgia Monti<sup>1</sup>, Dimitra Gkliati<sup>1</sup>, Anna Ruggerini<sup>2</sup>, Roberto Ciati<sup>2</sup>, Furio Brighenti<sup>2</sup>, Marisa Porrini<sup>2</sup>, Daniele Del Rio<sup>2</sup>, Francesca Scazzina<sup>2</sup>, Viviana Finistrella<sup>2</sup>, Maria Rita Spreghini<sup>2</sup>, Marco Vitale<sup>2</sup>, Elio Volta<sup>2</sup>, Claudio Maffeis<sup>2</sup> and Maurizio Vanelli<sup>1,2</sup>

Postgraduate School of Pediatrics University of Parma, and 2Giocampus Scientific Committee Parma, Italy



EMC are reported to be at high risk to become overweight and obese for cultural, religious and socio-economic reasons. The influence of skipping breakfast has rarely been investigated. To explore the influency of ethnic minority characteristics on breakfast skipping and weight status for the design of future programs and promotions campaign about active and healthy lifestyles.



Breakfast habits were explored through a multiple choice questionnaire in 179 ethnic minority children (EMC) 6-14 years old, recruited from the participants in "Giocampus", a Summer Sport School (SSS) held in Parma from June to September 2010, as part of a primary schools-targeted nutrition and sport educational program, supported by Town Council, School Inspectorate, University, Sport Clubs, Barilla Food company. Stature and body weight were collected. The results were consistent with those obtained in a randomized sample of 179 Italian peers (IP) attending the same SSS.



EMC skip breakfast more frequently than IP (15% vs 7%; p=0.029). The omissions are attributed to the lack of time (61%) and not be hungry (37%) upon waking. During weekends, the percentage of breakfast skippers decreased to 13%.

Overweight and obesity slightly recur in both EMC and IP skippers than in breakfast consumers (p= 0.05), but EMC are more incline than IP skippers to become overweight (p=0.042). EMC who personally prepare breakfast at home and who eat breakfast alone (54% vs 22% of the IP) are prone to skip breakfast (20%) and to have an elevated BMI (19.9%) compared to IP (11 and 12% respectively).

Figure 1. Percentage of breakfast skippers in the two ethnic groups of children

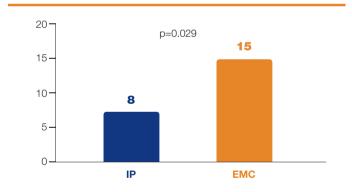
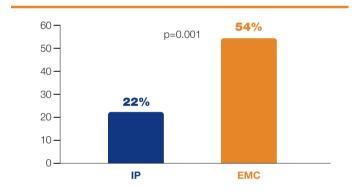


Figure 2. Percentage of children who eat and prepare breakfast alone





Skipping breakfast is a risk factor for overweight in EMC too and EMC tend to skip breakfast more than autochthonous peers. This happens at first in EMC left alone at home preparing their own meal. A differentiated approach is needed to promote this habits among EMC compared to indigenous children.

