Mother's education is the most important factor in socio-economic inequality of child stunting in Iran

Objective Malnutrition is one of the most important health problems, especially in developing countries. The present study aimed to describe the socio-economic inequality in stunting and its determinants in Iran for the first time.

Design Cross-sectional, population-based survey, carried out in ٢٠٠٩. Using randomized cluster sampling, weight and height of children were measured and anthropometric indices were calculated based on child growth standards given by the WHO. Socio-economic status of families was determined using principal component analysis on household assets and social specifications of families. The concentration index was used to calculate socio-economic inequality in stunting and its determinants were measured by decomposition of this index. Factors affecting the gap between socio-economic groups were recognized by using the Oaxaca–Blinder decomposition method.

Setting Shahroud District in north-eastern Iran.

Subjects Children (n ١٣٩٥) aged

Results The concentration index for socio-economic inequality in stunting was −٠·١٩١٣. Mother's education contributed ٧٠ % in decomposition of this index. Mean height-for-age Z-score was −٠·٥٤٤ and −٠·٣٣٥ for low and high socio-economic groups, respectively. Mother's education was the factor contributing most to the gap between these two groups.

Conclusions There was a significant socio-economic inequality in the studied children. If mother's education is distributed equally in all the different groups of Iranian society, one can expect to eliminate ٧٠ % of the socio-economic inequalities. Even in high socio-economic groups, the mean height-for-age Z-score was lower than the international standards. These issues emphasize the necessity of applying new interventions especially for the improvement of maternal education.