



RESEARCH ARTICLE

Childhood anemia in Mexico: A public health problem at all socioeconomic levels*

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Abstract

Background: In Mexico, prevalence of anemia in children <5 years of age (preschool) is high at all socioeconomic levels. We undertook this study to analyze the socioeconomic determinants of the prevalence of anemia in preschool children and to explore the reasons why the prevalence is high, even in wealthier households.

Methods: We used the National Survey of Health and Nutrition (ENSANUT) 2012 and calculated logistic regression models, considering as explanatory variables socioeconomic characteristics of children and mothers, among others. Models were estimated for all preschoolers and for each tercil of socioeconomic status.

Results: The national prevalence of anemia in preschool children is 23.3%; in the lowest tertile it is 26.4%, whereas in the highest tertile it is 20.2%. Variables related to increased risk of anemia in the highest tertile are male children (OR: 1.24), those <2 years of age (OR: 2.31), stunting (OR: 2.01), and mother as the head of the household (OR: 2.06).

Conclusions: Although anemia prevalence is higher at poorer socioeconomic levels, it remains high at all socioeconomic levels. Therefore, a general strategy is required to reduce the rate of childhood anemia rather than only the targeted efforts followed so far. Further research is needed

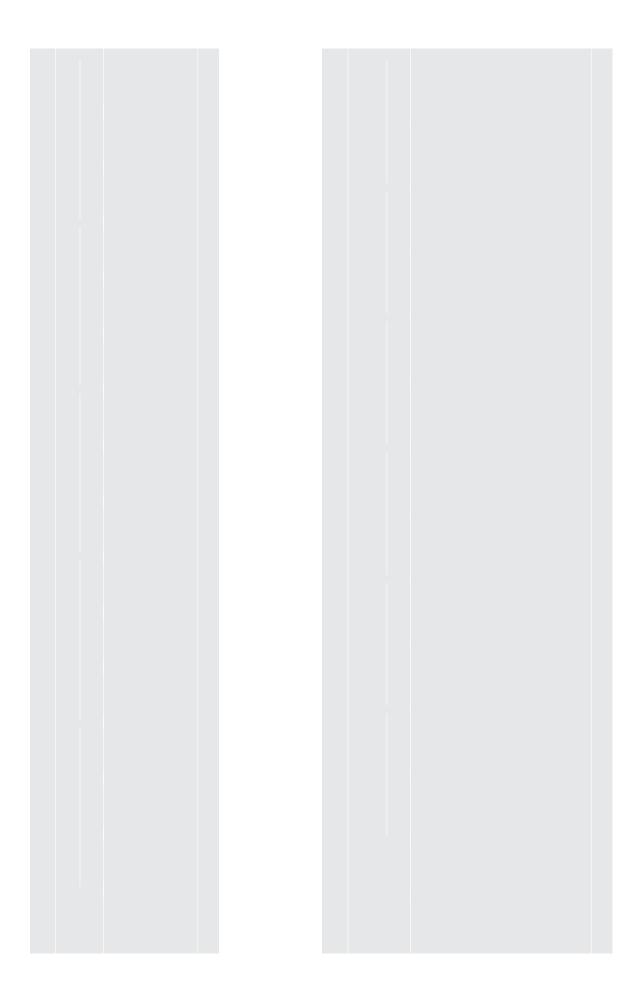
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^{*}The findings, interpretations and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the Hospital Infantil de México Federico Gómez.

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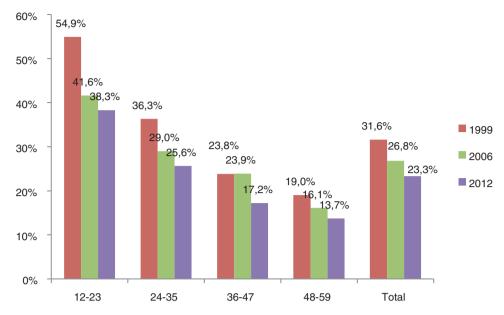


Figure 1 Anemia prevalence by age (in months), 1999, 2006 and 2012.

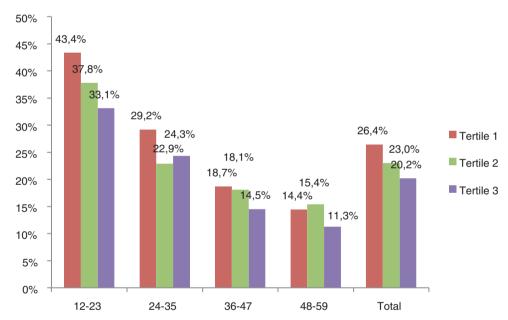


Figure 2 Anemia prevalence by age (in months) and socioeconomic tertile.

4. Conclusions

Anemia in preschool children is a public health problem present at all SES contrary to the generalized view that it is concentrated in lower income households. National prevalence of anemia in preschool children is 23.3%; in the lowest tertile it is 26.4%, whereas in the highest tertile it is 20.2%.

This paper presents some efforts to explain why anemia prevalence is high even in high SES. Logistic models were calculated for each SES tertile. Some of the estimated effects for the lowest SES tertile are different from those for the middle and highest tertile, not only in magnitude but also with opposite factors such as rural area and mother's educational level.

to evaluate whether they are contributing, positively or negatively, to this phenomenon.

Variables related to increased risk of anemia in the highest tertile are as follows: male children (OR: 1.24), those <2 years of age (OR: 2.31), stunting (OR: 2.01), and mother as head of the household (OR: 2.06).

A general strategy is required to reduce the rate of children with anemia rather than only the targeted efforts followed so far. In addition, there is a need for additional research to explain the high prevalence in wealthier households.