Prevalence and determinants of stunting in Berd region in Armenia-A conflict-ridden area in Caucasus

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Background
Despite global efforts, stunting is still a public health problem in several developing countries in the world. The prevalence of stunting among the children 0–5 years old in Armenia, has increased to from 17% in 2000 to 18% in 2005 and then to 19% in 2010. A program was designed to reduce the prevalence of stunting among preschool children in Berd - a poor region in Armenia near the north east border which has experienced intermittent military tensions for over 20 years. To understand the effectiveness of the program, a baseline study was conducted.

Methods
The study design was a cross sectional quantitative assessment of anemia, intestinal parasitic infections, and stunting among children 6 months - 6 years old in the target communities (n = 604). The research team conducted anthropometric and hemoglobin measurements, as well as stool analysis for presence of intestinal parasites among the study population. Children’s caregivers participated in a survey about their children’s eating habits.

Results
The prevalence of stunting was higher among the children from 6 months to 24 months old in both rural [12.1%] and urban [14.3%] communities compared to 25–72 months old children in rural areas [7.1%] and in urban areas [9.9%]. The children who had consumed at least 4 food groups during the previous day (Minimum dietary diversity) of the investigation had significantly lower odds of being stunted (OR = 0.29, p < 0.02). Also children who had suffered from prolonged diarrhea had significantly higher odds of being stunted (OR = 3.00 p < 0.05). The prevalence of anemia and intestinal parasites in the urban and rural communities were calculated. However, no statistically significant associations were found between stunting and presence of intestinal parasites and anemia.

Conclusions
The study identified several key determinants associated with stunting in this vulnerable region. The protective role of consumption of diverse food groups on stunting highlights the importance of making balanced nutrition accessible to children through parent education and young child feeding programs. These findings led to the design of community training initiatives regarding children’s health and hygiene that can reduce the prevalence of stunting and ensure the appropriate nutrition for children with episodes of diarrhea.
Key messages
- Diversity of food plays a preventive role in development of stunting
- Community public health training and young child feeding programs should be considered as possible interventions for the program planners