

Standardized National Growth Chart of 0-2 Years Old Jordanian Children

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Abstract

Background: The 2006 publication of the World Health Organization (WHO) introduced new growth standards based on data from optimally nourished breastfed infants globally.

Aims: This study aims to assess the effects of implementing the WHO growth standards on the growth patterns of Jordanian infants. Additionally, it aims to ascertain whether it is essential to establish country-specific growth standards and charts tailored for Jordanian infants and, if necessary, develop a growth chart specifically for Jordanian infants as part of this study.

Method: The study included a representative sample of 102,846 infants (50.16% boys, 49.84% girls) aged 0 to 24 months, selected randomly from 115 primary healthcare centers across the country. Weight and height measurements were analyzed, and age and sex-specific z scores were calculated relative to the WHO growth standards. The data were used to establish growth charts using Cole's LMS method, which involved plotting and smoothing the data

Results: The study found Jordanian infants exhibited significantly shorter length-for-age measurements than WHO standards with mean z scores of -0.56 and -0.38, for boys and girls, respectively. Weight-for-age measurements showed a good fit and were comparable to the WHO growth standards for both boys

(mean z score = -0.05) and girls (mean z score = 0.04). Notably, Jordanian infants displayed higher weight-for-length measurements, with mean z scores of 0.51 for boys and 0.47 for girls.

Conclusion: The availability of Jordanian-specific growth standards will improve the accuracy of assessing infant growth and enhance the monitoring and evaluation of their health and development.

Keywords: Growth Standards, Jordanian infants, National Growth Charts, Length-for-Age, Weight-for-Age, Weight-for-Length.