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Letter to Editor

A comparative study on growth state of children less than two-year old in Jahrom, Southeastern Iran with NCHS measurements

S.T. Heydari[*], *F. Emamghoreishi*[**], *M. Amini*[***]

To the Editor

To evaluate the physical and health growth of children, measurements such as height and weight are used [1,2]. This study determins the weight and height of 0-2 year old children in Jahrom, Southeastern Iran.

A total of 597 (391 boys, 206 girls) children born in Jahrom entered our study from April 2001 to December 2002. The height and weight of these children were recorded 18 times from one month to two years of age. In order to fit appropriate models for infant growth, Healy, Rasbash and Yang (HRY) method was used to estimate age related smoothed centiles. This method was implemented for the World Health Organisation as GROSTAT computer package [3].

The mean weight of male newborns, except in one month of age, was more than female ones. Before two months of age and among two-year olds, there was no significant difference between the weight of male and female newborns. The mean height of male newborns, except in one month of age, was more than females.

No more than cubic polynomials were needed to fit height-for-age nad weight-for-age smoothly for infants. The height of male and female newborns showed an increase by age up to two years. The weight of male and female newborns also increased by age but the speed of increase to six months was more than that of six months to two years of age.

As the height and weight of under two-year old children in Jahrom were lower than NCHS, similar to other studies [4-6], establishment of a standard curve for this region seems necessary. Some children may be considered thinner or shorter for no reason.

References

1. Hedayati-Omami MH, Barzigar S. **A study of height and weight in the students of Rasht and Sangar 1989**. *J Med facul of Guilan Uni of Med Sci* 1993; 2(6, 7):12-20.
2. Green M. Pediatric diagnosis. 3 ed. Philadelphia: WB Saunders, 1980.
3. Healy MJ, Rasbash J, Yang M. **Distribution-free estimation of age-related centiles**. *Ann Hum Biol* 1988; 15(1):17-22.
4. Bamgboye EA, Al Nahedh N. **Factors associated with growth faltering in children from rural Saudi Arabia**. *Afr J Med Med Sci* 2003; 32(4):343-347.
5. Kamal AA, Bener A, Kareem Al-Mulla AM. **Growth pattern of Qatari preschool children**. *Croat Med J* 2004; 45(4):461-465.
6. Stein AD, Barnhart HX, Wang M, Hoshen MB, Ologoudou K, Ramakrishnan U et al. **Comparison of linear growth patterns in the first three years of life across two generations in Guatemala**. *Pediatrics* 2004; 113(3 Pt 1):e270-e275.

*Research Assistant, Gastro-Entro-Hepathology Research Center, Shiraz University Of Medical Sceinces, Shiraz, Iran/Lorestan University of Medical Sciences, Lorestan, Iran.
**Associate Proffesor, Department of Pediatrics, Jahrom School of Medical Sciences, Jahrom, Iran.
***Assistant Proffesor, Department of Health, Jahrom School of Medical Sciences, Jahrom, Iran.
Correspondence to: Dr Seyed Taghi Heydari, Department of Biostatistics, School of Public Health, Shiraz University of Medical Sciences, Shiraz, Iran. e-mail: heidaryt@sums.ac.ir