Abstract

Objective. To describe the epidemiology of Vitamin A and C and folic acid deficiencies and their association with sociodemographic and dietary factors in a national probabilistic sample of Mexican women and children. Material and Methods. This is a probabilistic sample from the National Nutrition Survey 1999 (ENN-99) including 1 966 children and 920 women. Vitamins A and C were measured in serum by high-performance liquid chromatography, and folic acid in total blood by a microbiological method. Determinants for such deficiencies were explored by multiple regression models. Results. Vitamin A deficiency (retinol <10 mg/dl) was rare in both children and women. But subclinical deficiency (retinol >10 and <20 mg/dl) was present in 25% of children. The likelihood of subclinical deficiency of vitamin A was less in older children (OR=0.98, p=0.01) and in women with higher body mass index (OR=0.93, p=0.01). About 30% of children <2 years of age and 40% of women were vitamin C deficient. The likelihood of vitamin C deficiency was less in children and women as socioeconomic level increased (OR=0.69, p=0.03, and OR=0.80, p=0.04), and higher in older women (OR=1.02, p=0.05). The prevalence of folate deficiency varied in children (2.3 to 11.2), in women it was 5%. Folate deficiency was less in children of higher socioeconomic level (OR=0.62, p=0.01), and in those eating more vegetables (OR= 0.22, p=0.01). Conclusions. The high prevalence of subclinical deficiency of vitamin A in children is indicative of risk of further deterioration under adverse circumstances. Vitamin C deficiency in both children and women implies in addition diminished ability for iron absorption. The English version of this paper is available too at: http://www.insp.mx/salud/index.html

Keywords

vitamin A deficiency; vitamin C deficiency; folic acid deficiency; preschoolers; school-age children; women of childbearing age; Mexico.