Abstract
Currently, blood levels to define vitamin deficiency or optimal status in adolescents are extrapolated from adults. This may be not adequate as vitamin requirements during adolescence depend on the process of sexual maturation, rapid increasing height and weight, among other factors. In order to establish the state of the art, Medline database (www.ncvi.nlm.nih.gov) was searched for studies published in Europe between 1981 and 2010 related to liposoluble vitamin status in adolescents. A comparison of the vitamin status published in the reviewed articles was difficult due to the lack of studies, lack of consensus on cut-off levels indicating deficiency and optimal vitamin levels and the different age-ranges used. In spite of that, deficiency prevalence varied for vitamin D (13-72%), vitamin A (3%), E (25%) and -carotene (14-19%). Additional factors were considered as possible determinants. We conclude that it is necessary to establish a consensus on acceptable ranges and cut-offs of these vitamins during adolescence. Representative data are still missing; therefore, there is a high need to get deeper into the investigation on liposoluble vitamins in this population group.

Keywords
Vitamins, Adolescence, Nutritional status, Risk factors.