Background. Hypovitaminosis D is an international problem; however, there is little information about its prevalence in apparently healthy residents children living at high altitudes. In Ukraine several studies evaluated the vitamin D status in some areas of the country, in certain groups such as postmenopausal women, in patients from an endocrinology clinic. However, no published information is available regarding epidemiological data on vitamin D status in a Ukrainian population for a wide age range and geographical territory. The study of vitamin D deficiency in the adult population of Ukraine was conducted, but in this research in detail indexes were not analyzed depending on a residence region above a sea level and ecological contamination of region. In this context, we aimed to evaluate variation of vitamin D status in a large population of Bukovinian and Precarpathian regions. Material and methods. In this observational epidemiological study 482 persons 18-88 years were inspected, that constantly live in Precarpathian region (Kolomyja, Kosiv, Verhovyna districts) and Bukovinian region (Chernivtsi, Kitsman and Vyzhnytsia districts). Vitamin D levels were classified as severe deficiency <10ng/mL, deficiency 10-20 ng/mL, insufficiency 21-29 ng/mL, sufficiency ≥30ng/mL and potentially harmful >100ng/ml. Results. Only in 37 cases (7.7%) content of 25(OH)D in the serum of blood was within the normal limits, and there were vitamin D deficiency and insufficiency in another cases (92.3%). Thus the severe vitamin D deficiency was observed in 23 (4.8%) inspected. At comparison of indexes 25(OH)D it was set in the regions of inspection, that a level of vitamin of D in a serum was for significantly higher in residents of Verhovyna and Kosiv districts (more than 450 m above a sea level) comparatively with the residents of Vyzhnytsia and Kolomyja. Conclusions. The middle level of vitamin of D in the serum of blood of adult population depends on a residence and increases in residents with height above a sea level. Our results suggest that suboptimal vitamin D levels are common in the Ukrainian population. Further investigation is warranted to evaluate factors associated with vitamin D deficiency in high-risk individuals.

Keywords: vitamin D, deficiency, insufficiency.