

**ASSESSMENT OF THE HEAVY METALS IN THE FOOD FROM ROMANIA,
2005 – 2006**

Carmen Hura, B.A.Hura

Institute of Public Health
Str.V.Babes 14, 700464 Iasi, Romania, chura@iasi.mednet.ro

Exposure to heavy metals is an important problem of environmental toxicology. Most of these metals are toxic to humans, animals and plants. Man, being at the top of the food chain, is at great risk of suffering from health hazards associated with toxic metals because of bioaccumulation. The aim of this study was the evaluation of the heavy metals contents in the food from Romania area.

The study presents the results obtained in 2005- 2006 of some metals [Pb, Cd] in the food, 1869 samples: meat (469 samples), vegetables (750 samples), panification products (283 samples), juice (162 samples), diets (205 samples), in Romania. Trace elements concentrations were analyzed by atomic absorption spectrophotometry.

In all analysed samples these metals were found. Generally, a wide variation between individual samples was observed.

Meat: The mean metals levels in the meat products varied between 0.07 mg/kg Cd and 0.08 mg/kg Pb.

Vegetables: The mean metals levels in the vegetables varied between 0.02 mg/kg Cd and 0.07 mg/kg Pb.

Panification products: The results of the investigations showed a variation of heavy metals between 0.02 mg/kg Cd and 0.06 mg/kg Pb.

Diets: The mean metals levels in the diets varied between 0.03 mg/kg Cd and 0.1 mg/kg Pb.

Determinations of these chemical contaminants in food are important in environmental monitoring for the prevention, control and reduction of pollution as well as for occupational health and epidemiological studies.