Conclusion: Disability is a global public health problem, besides Republic of Moldova. Determining factor is the aging population process, the risk factors from the occupational area and the high level of associated disease (diabetes, cardiovascular disease, cancer and others). The determination of disability service in Republic of Moldova is in the process of reformation, based on the implementation International Classification of Functioning, Disability and Health, also known as ICF.

Key words: disability, occupational disease, injury at the workplace

## 6. HYGIENIC ASSESSMENT OF LEAD CONTENT IN THE ENVIRONMENTAL MEDIA AND POSSIBILITIES TO REDUCE THE ASSOCIATED RISK ON HUMAN HEALTH

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Introduction: Human health and chemical safety are key elements in the socioeconomic development of the country. Research conducted in the past in the Republic of Moldova regarding the environmental pollution with chemicals shows the importance of studying their continuity and to elucidate the impact on human health. Lead is one of the major pollutants of the environment due to its cumulative toxic effects and of which the concentration increased alarmingly recent decades. Lead is considered the pollutant number one, due to large number of poisoning.

**Purpose and objectives**: Hygienic assessment of lead content in the environmental media in Moldova and developing measures to minimize the negative impacts on human health.

Materials and methods: The project is based on using the methods of laboratory investigation hygienic and instrumental (determination of lead content in soil, atmospheric air, biological substrates), statistical methods.

**Results:** Lead is used by people for hundreds of years, but no one thought about the possible consequences of lead exposure. In the twentieth century have expanded the scope and quantity of lead production. Most of the lead detected in food, water, soil and dust are of anthropogenic origin, but not natural. The main source of lead in the environment is water, due to use of lead pipes, leadbased paints. The most important mobile sources of lead in ambient air in countries where leaded petrol is used, are vehicles. Sources of lead pollution are emissions from road, rail and sea transport, lead in paints, cosmetics, traditional medicines, lead in construction materials and use of lead acid batteries. After statistical data in Moldova are used annually about 5,000 tons of fuel with aditive lead tetraethyl. According to official statistics of the World Health Organization 25 % of the overall population morbidity are due to the influence of chemicals. Human exposure to lead is estimated at 143 000 deaths each year and 0.6 % of the global burden of disease. Lead is a toxic that affects many body systems, including neurological, hematological, immunological, gastrointestinal, cardiovascular and renal systems. Child exposed to lead is estimated to contribute to about 600 000 new cases of children with intellectual disabilities each year. The concentration of lead in blood is an informative biomarkers for exposure assessment of lead on humans. The most susceptible are children of early age, especially in its central nervous system is affected, manifesting itself by reducing intellectual capacity and behavioral disorders. Adverse effects in this group occurs when the lead content in the blood is less than 200 mkg / 1

Conclusions: Test results of environmental pollution with lead in the surveillance activity wear only an informational components description. Research conducted in the past in the Republic of Moldova in environmental pollution with chemicals shows the importance of studying their continuity and to elucidate the impact on human health.

Key words: lead, environmental media, human health