

WATER QUALITY REFLECTS HEALTH

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Introduction. A clean environment is essential for human health and well-being. The most well-known health issues are related to the pollution of the surrounding air and poor water quality. Much less is known about the impact of hazardous chemicals on population health and especially on the endocrine system. In everyday life, people are exposed to a wide range of chemicals through polluted air and water. In addition, the amount and variety of chemicals currently used and the steady increase in chemical production suggest that human and water exposure will continue to increase.

As a result, there are health effects of exposure to chemicals, pesticides during life, especially in vulnerable periods, such as early childhood, pregnancy and old age.

Material and methods. The evaluation of the pesticide amount was carried out by analyzing the statistical data on "Report on health and epidemiological status" F-18, of the Ministry of Health of the Republic of Moldova, "Report on the stock and use of plant protection products" f-2/e and f-10/e of the Ministry of Agriculture and Food Industry.

Results. The National Public Health Agency monitors the amount of pesticides and other chemicals in surface water supply sources, especially water intakes for centralized drinking water supply in order to reduce public health risks. Hygienically estimating the variety and intensity of pesticide use, it was recorded that in 2020, 1907.2 tons of phytosanitary products were used in the country, their number being 1240. Of these, 179 are products that can affect the endocrine system. These products get into the water as a result of use. The monitoring results of the drinking water quality from the artesian wells for public use, which accounted for 2908, showed a high level of non-compliance with chemical parameters. The results of the laboratory tests reported that the share of samples that do not comply with the sanitary norms in terms of chemical parameters, taken and examined from the artesian wells in 2020, was on average 71%, compared to 65.9% found in 2019. Poor drinking water quality and unfair access to water are the risk factors that can be prevented and influenced. Improving the quality of the environment in key areas, such as air and water, can prevent diseases and improve human health.

Conclusions. The phenomenon of chemicals impact on public health, as well as the quality of drinking water are the major global challenges and sources of concern for the public health service. Thus, to sum it up, chemicals including endocrine disruptors can be identified as substances of very high concern along with those known to cause mutations, cancer and reproductive toxicity. The aim is to reduce the use and, finally, to replace these substances with safer alternatives. The effects of chemicals, including those involved in disrupting the endocrine system, can be observed long after their exposure.