

## THE IMPACT OF DRINKING WATER QUALITY FROM DIFFERENT SOURCES ON POPULATION HEALTH

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**Introduction.** The data literature analysis shows that water quality plays an important role in the health of the population. In the Republic of Moldova, water supply is a pressing problem, since the water sources are unevenly distributed on the territory and the quality of the water, in many cases, does not correspond to the existing national standards. In this sense, the relationship "water - quality of life" is characterized not only from a socio-economic point of view, but also by both objective and subjective indicators, with population health being the foreground issue.

**Material and methods.** In order to highlight certain morbid and premorbid forms conditioned by the quality of the drinking water, the population morbidity through the most frequently diagnosed nosologies was studied and evaluated by using a modern research organization methodology. For this purpose, the morbidity rate among people that use water from the following 3 different sources was investigated and analyzed: the aqueduct fed from the Prut river, artesian wells, and wells. At the same time, both the age and gender of the consumers were taken into account.

**Results.** According to the survey, the general morbidity rate is the lowest among subjects who use water from the aqueduct supplied from the Prut river, and the highest numbers were found among subjects who use water from the aqueduct supplied from artesian wells. The majority of the population suffers from several simultaneous chronic diseases. Among the population who consumes water from the aqueduct fed by the Prut River prevails hypertension – 14.2%, pancreatitis – 10.3%, cholecystitis – 12.3%, hepatitis – 3.7% and osteohondrosis – 8.8%. Cases of anemia were found only in people who consume water from wells (12.2%), and nephrolithiasis was found in about 1.5% of cases in the same population. In cases of water consumption from the aqueduct supplied from the wells, most cases revealed an ischemic heart disease – 7.3%, gastritis and duodenitis – 8.8%, radiculitis – 4.5%, arthropathy – 3.8% and pyelonephritis – 7.1%. The analysis of the morbidity through the mentioned nosologies shows that the frequency of diseases increases directly proportional to age and that they are diagnosed more frequently among women who consume water from the aqueduct fed from the river and from comparative wells. On the other hand, the morbidity of people who drink water from wells is higher among men than women.

**Conclusions.** The analysis of the population's health status emphasizes the impact of the water source used for drinking and sex- and age-dependent characteristics. It was found that the drinking water from the aqueduct fed from the river is much more harmless for the population's health since it is much less mineralized (0.46–0.66 g/dm<sup>3</sup>).