

8. COLIFORM BACTERIA IN MILK AND DAIRY PRODUCTS SOLD IN CHISINAU

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Introduction. Milk and dairy products are a very important food group in the human diet. Despite the fact that milk is sterile in the mammary glands of healthy animals, it later becomes colonised by microorganisms from a variety of sources, including during milking, from equipment, air, water, feed, grass, soil and other media. In the later stages of the production of drinking milk and dairy products, contamination with various microorganisms takes place as a result of non-compliance with both production hygiene and personal hygiene requirements. In this regard, the contamination of this food group with coliforms, including *E.coli*, is of interest. The elucidation of the situation regarding the mentioned contamination can be considered current also due to the fact that in the assessment of the safety of this food group the number of coliform bacteria, including *E.coli* are hygienic indicators determined obligatorily during the microbiological examination.

Aim of study. Hygienic analysis and evaluation of the results of laboratory investigations of samples of milk and dairy products regarding the number of coliform bacteria, including *E.coli* performed in the Public Health Center in Chisinau.

Methods and materials. The study is a longitudinal retrospective, the data for a period of 7 years (2014-2020) being collected from the Public Health Center in Chisinau. The laboratory examination of the samples was carried out according to the methods in force.

Results. During the study period, 1482 samples were investigated, of which 96 samples of coliform bacteria were detected. The share of their detection was in 2014-2.7%, 2015- 4.2%, 2016- 8.8%, 2017- 7.7%, 2018- 1.7%, 2019-17.5%, 2020-21.1%, with an average of 6.48%. The seasonal variation index (IVS) for January was 80%, for the month II- 35%, III- 65%, IV- 50%, V- 210%, VI- 35%, VII- 45%, VIII- 200% , IX- 150%, X- 200%, XI- 150%, XII- 0%. Seasonal coefficient 74.3%. Seasonal growth rate 70.7%. The incidence of coliform bacteria was higher in Plombir ice cream, the share of non-compliant samples being 19.2%, on the second place is placed kefir 5.2%, on the third place the ice cream samples from Eskimo cream 4.2%, and on the second place IV with a weight of 3% au- milk, lactolux, fresh cow's cheese, Mozzarella Bacon soft cheese, Burrata soft cheese, strawberry milkshake.

Conclusion. The average share of samples of milk and dairy products, which did not meet the requirements in force according to the indicators of total coliform and *E.coli* was 6.47%. Among the unsatisfactory tests, the ice cream samples were placed in the first place, followed by the samples of kefir, milk, cow's cheese and so on.