

ASSESSMENT OF ENZYME PREPARATIONS CONSUMPTION IN UKRAINE IN COMPARISON WITH OTHER COUNTRIES OF THE WORLD

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Introduction

Most gastroenterological diseases are accompanied by digestive disorders of varying severity. Their development may be due to insufficient production of digestive enzymes or a decrease in their activity [1-3]. Therefore, enzyme preparations are widely used to correct digestive disorders in clinical practice. To date, the global pharmaceutical market offers a significant number of enzyme preparations, which differ in the number of components, the activity of digestive enzymes, the method of production and the forms of release [2-4].

The aim

The aim of research - assessment of the volume and structure of consumption of enzyme preparations (group A09AA) in Ukraine in 2018-2020 and a comparison of their consumption in Ukraine with other countries (Norway and Estonia).

The tasks of research

- calculation of DDDs / 1000 inhabitants / day for drugs of the group A09AA02 «Multienzymes (lipase, protease etc.)», drugs of the group A09A A10** «Other» and group A09AA «Enzyme preparations» in total, represented in Ukraine in 2018-2020;
- assessment of the volume and structure of enzyme preparations consumption in Ukraine in 2018-2020;
- comparative analysis of enzyme preparations consumption in Ukraine, Norway and Estonia in 2018-2020.

Objectives and Methods

The objects of research – enzyme preparations (group A09AA). Assessment of enzyme preparations consumption was carried out by ATC/DDD-methodology. International index of DDDs / 1000 inhabitants / day was calculated at carrying out research. Number of drugs packaging, which were sold for a year in Ukraine, was taken from the information system «Pharmexplorer» of Company «Morion». The data «Statistical yearbook of the State Agency of Medicines 2021» was used to assess enzyme preparations consumption in Estonia [5], the data « Drug Consumption in Norway 2016-2020» - in Norway [6]. A DDD of enzyme preparations are taken from the WHO website (<https://www.whooc.no/>). The prescribed daily dose (PDD) was calculated using the instructions for medical use in the absence of a DDD for the drug. The unit dose (number of tablets or capsules) was used instead of the DDD for combination products.

Results

Representatives of the group A09AA02 «Multienzymes (lipase, protease etc.)» were presented in all the countries studied, representatives of the group A09A A10** «Other» – only in Ukraine (figure 1). Consumption volumes of enzyme preparations in Ukraine were as follows: 2018 – 9.29; 2019 – 9.08; 2020 – 8.46 (figure 2). During the 2018-2020, the volumes of enzyme preparations consumption decreased in Ukraine, increased - in Norway and Estonia. (figure 3). According to the consumption volumes of enzyme preparations in 2018-2020 countries studied can be positioned the following order: Ukraine > Estonia > Norway. The enzyme preparations were consumed in Ukraine on average 6 times more than in Estonia and 10 times more than in Norway.

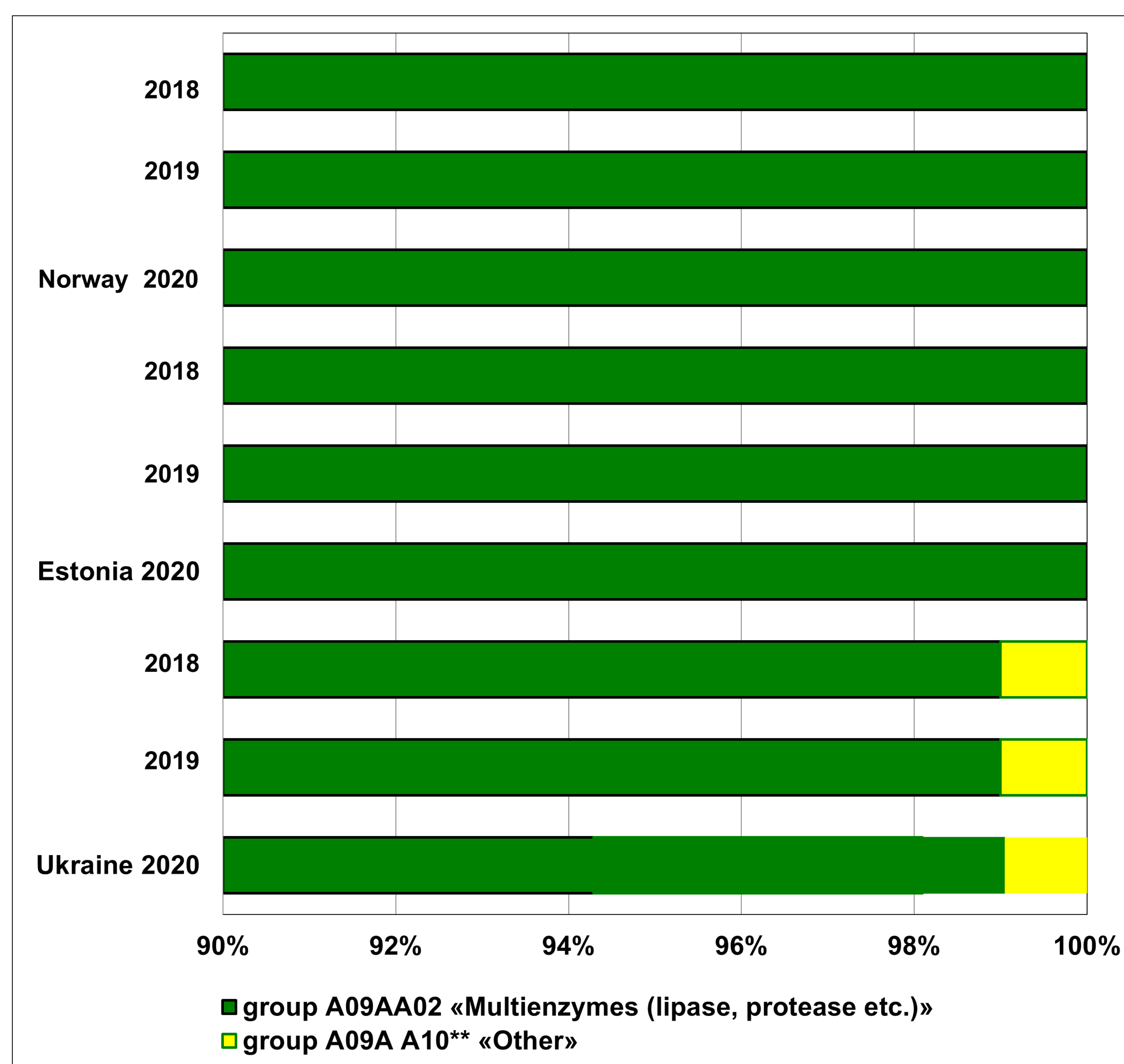


Figure 1. Structure of enzyme preparations consumption (in %) in Ukraine, Estonia and Norway in 2018-2020

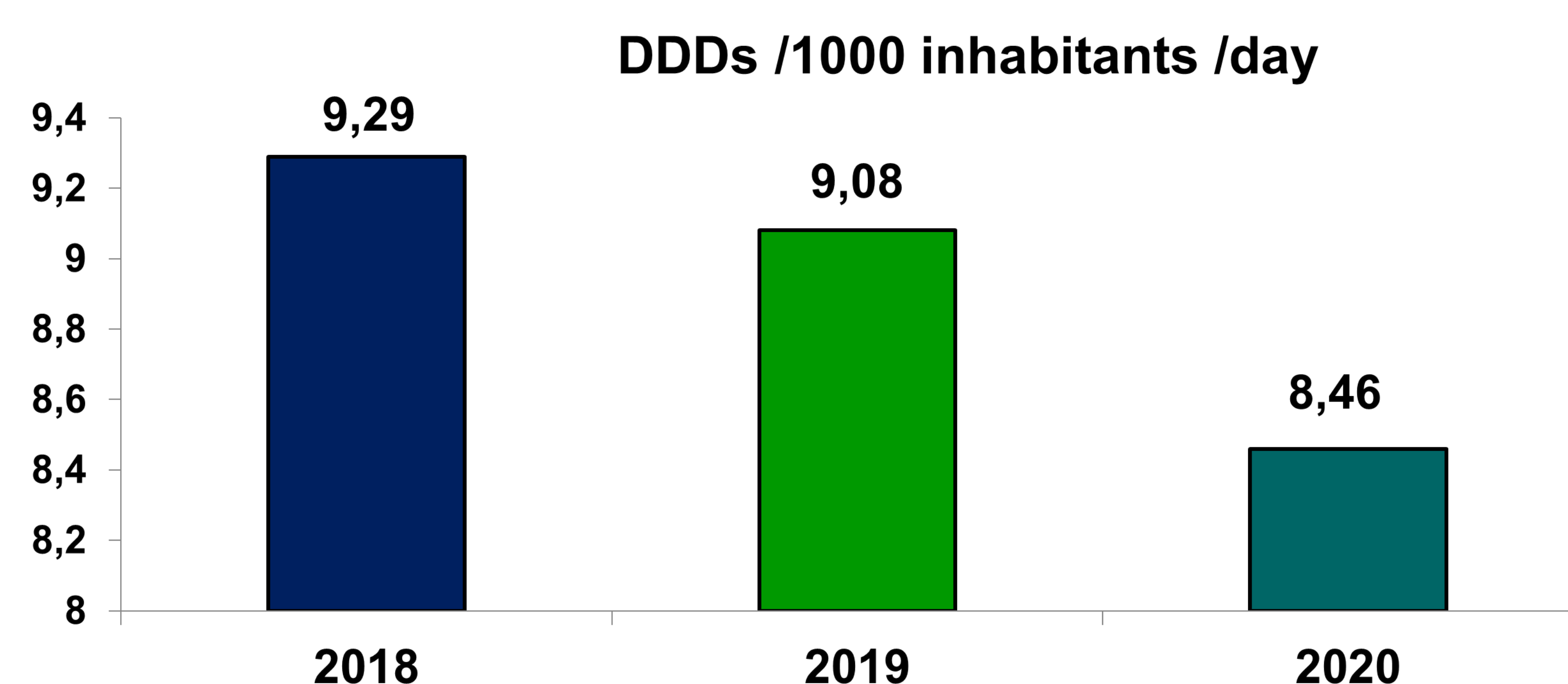


Figure 2. Volumes of enzyme preparations consumption (group A09AA) in Ukraine in 2018-2020

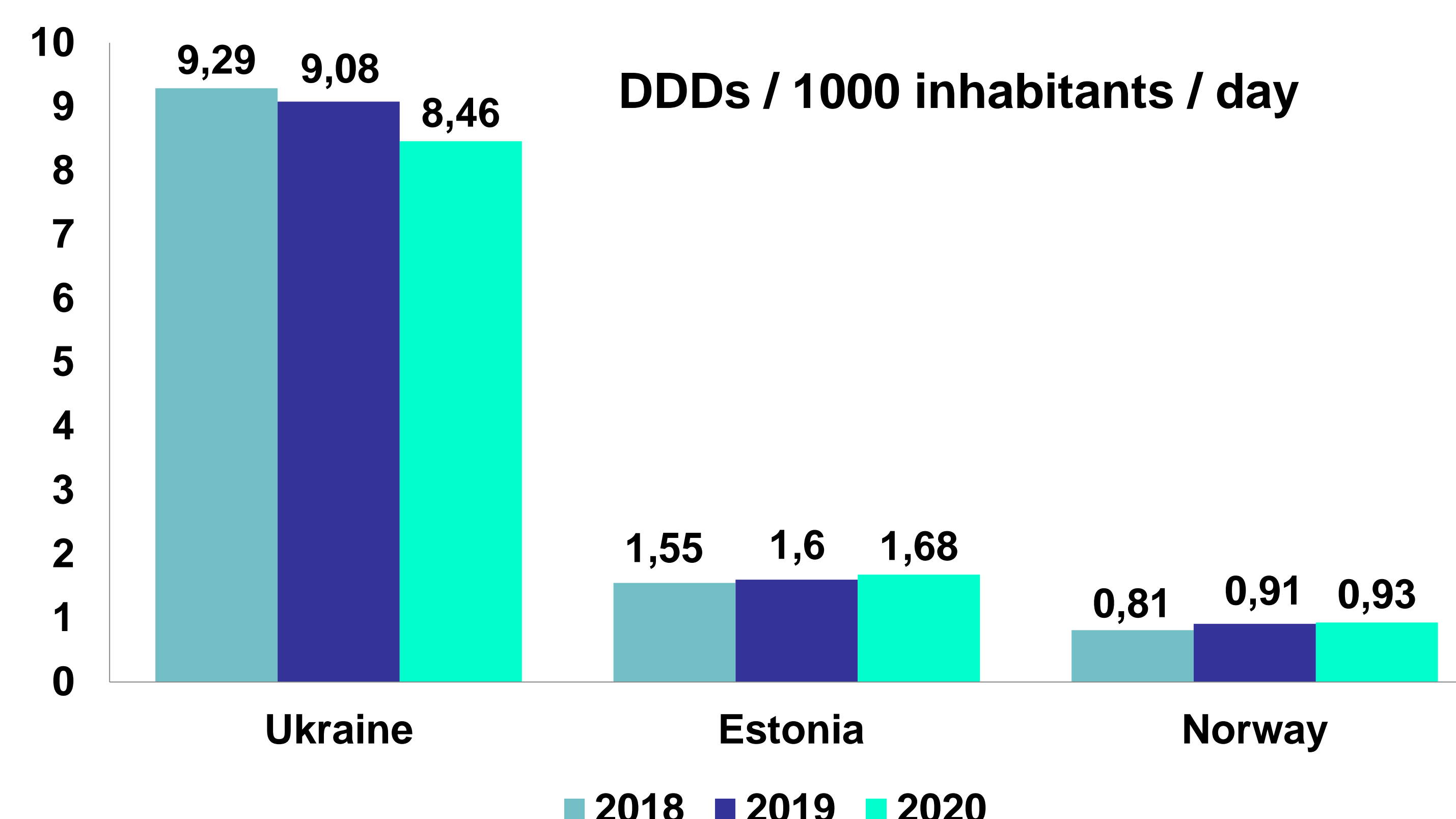


Figure 3. Volumes of enzyme preparations consumption (group A09AA) in Ukraine, Estonia and Norway in 2018-2020

Conclusions

Approximately from 0.85 to 0.93 % of the Ukraine population every day took 1 DDD of one of enzyme preparations in 2018-2020. Ukraine ranked first place in terms of consumption of enzyme preparations in this period among the countries studied.

Reference

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