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## **THE PROBLEM OF TURNOVER OF THE PSYCHOACTIVE SUBSTANCE AL-COHOL: ABUSE, CONSEQUENCES, COUNTERMEASURES**

### **АБСТРАКТ**

The authors made a review of statistical data on the turnover of the psychoactive substance alcohol within the Russian Federation, Ukraine, United States, Moldova, Hungary, Czech Republic, and England. The authors studied the facts of negative consequences caused by the abuse of the psychoactive substance alcohol and dynamics of alcohol dependence to develop the measures of resistance to the spread of alcoholism among the population. It was revealed that the WHO records only the quantitative indicators of abuse of alcohol. However, it is necessary to consider the qualitative indicators as well (strong or light alcoholic beverages). The article demonstrates the presence of cause-and-effect links between the abuse of alcohol and a variety of mental and behavioral disorders, and other non-communicable health problems, injuries caused by road traffic accidents and the incidence of socially dangerous infectious diseases (tuberculosis, hepatitis, HIV/AIDS).

**Keywords:** psychoactive substances; alcohol; abuse; negative consequences; countermeasures against the spread of alcoholism.

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## **К ПРОБЛЕМЕ ОБОРОТА ПСИХОАКТИВНОГО ВЕЩЕСТВА АЛКОГОЛЬ: ЗЛУПОТРЕБЛЕНИЕ, ПОСЛЕДСТВИЯ, МЕРЫ ПРОТИВОДЕЙСТВИЯ**

### **Аннотация**

Проведен обзор статистических данных относительно оборота психоактивного вещества алкоголя в странах: Российская Федерация, Украина, США, Молдавия, Венгрия, Чехия, Англия. Изучены факты негативных последствий от злоупотребления психоактивным веществом алкоголем и развития алкогольной зависимости для разработки мер противодействия распространению алкоголизма среди населения. Установлено, что ВОЗ фиксируют только количественные показатели в употреблении психоактивного вещества алкоголя, но необходимо учитывать и качественные показатели (крепость алкогольных напитков). Показано наличие причинно-следственных связей между злоупотреблением психоактивного вещества алкоголя и целым рядом психических и поведенческих расстройств, других неинфекционных нарушений здоровья, травм в результате дорожно-транспортных происшествий и заболеваемостью социально опасными инфекционными болезнями (туберкулез, гепатиты, ВИЧ/СПИД).

**Ключевые слова:** психоактивные вещества; алкоголь; злоупотребление; негативные последствия; меры противодействия распространению алкоголизма.

**Introduction.** The spread of alcoholism among the population throughout the world because of abuse of the psychoactive substance alcohol has one common scenario. Thus, in the pre-revolutionary period in Russia the alcohol consumption was several times lower than in our days [1]. Particularly strong growth in the use of alcohol began in the 60s, when the level of life of Soviet citizens began to rise significantly. The feature of alcoholism in Ukraine and Russia has become typical for northern Europeans model preemptive use of alcoholic beverages, contributing to severe intoxication. The main impetus for the growth of consumption of psychoactive substance alcohol and alcohol mortality in the 90s was the liberalization of the alcohol industry and, as a consequence, the increased affordability of alcoholic beverages and alcohol [2].

**The purpose of the study.** To review the statistics in the world regarding turnover of psychoactive substance alcohol, negative consequences of abuse by the alcohol and dynamics of the alcohol dependence to develop measures to counter the spread of alcoholism.

**Materials and methods.** Data from the World Health Organization (WHO); Ukrainian Medical and Monitoring Centre for Drugs and Alcohol of the Ministry of Healthcare of Ukraine; State Statistics Service of Ukraine; scientific literature sources for the period of 2004-2014. Among the methods used documentary, comparative, legal and graphical analysis.

**Results and discussion.** Due to wide spread of abuse by the psychoactive substance (PAS) alcohol, that contributes to the development and dissemination of alcohol dependence, it was of interest to analyze the statistics on alcohol consumption in different countries and to propose measures to prevent the spread of alcoholism.

Key facts about the abuse by the PAS alcohol in the world according to the WHO [3]:

- Because of PAS alcohol abuse yearly 3.3 million people die, representing 5.9% of all deaths.
- Abuse by the PAS alcohol is a causal factor in more than 200 disorders of health-related illnesses and injuries.
- It is estimated in terms of DALYs (years

of life lost due to disability), 5.1% of the total global disease and injury start due to abuse by the PAS alcohol.

- Abuse by the PAS alcohol leads to death and disability with respect to the earlier stages of life, and among people aged 20-39 years; approximately 25% of all deaths related to alcohol.
- There is a causal link between the abuse by the PAS alcohol and a number of mental and behavioral disorders, and other non-communicable health problems and injuries.
- Recently established causal links between abuse by the PAS alcohol and morbidity with such socially dangerous infectious diseases such as tuberculosis, hepatitis, HIV/AIDS.
- In addition to the harmful health effects, abuse by the PAS alcohol causes significant social and economic costs to society as a whole.

According to the WHO, chronic diseases caused because of abuse by the PAS alcohol annually fatal 36 million lives. Systematic abuse of alcohol leads to the development of cardiovascular disease, because alcohol is a potent cardiac depressant, and a high mortality rate from heart disease largely due to their excessive fondness for alcoholic beverages [4].

In addition, the WHO believes that to reduce these indicators need to impose restrictions on the sale of alcohol in retail outlets, to ensure compliance with the prohibitions on advertising of alcohol and to raise taxes on alcohol products [5].

According to the WHO, the amount of alcohol that the average Ukrainian drinks per year is 15.6 liters. More than in Ukraine, drink only in Russia, Hungary, the Czech Republic and Moldova (Russia topped the list with index 18.22 liters of alcoholic beverages per person per year). Ukraine ranked fifth in the world in the number of surfactants consumed alcohol per citizen [3]. It is important to note, that more than two thirds of Ukrainians (69%) with some frequency consume alcoholic beverages, while the number of Ukrainians who do not drink alcohol compared with 30% [5].

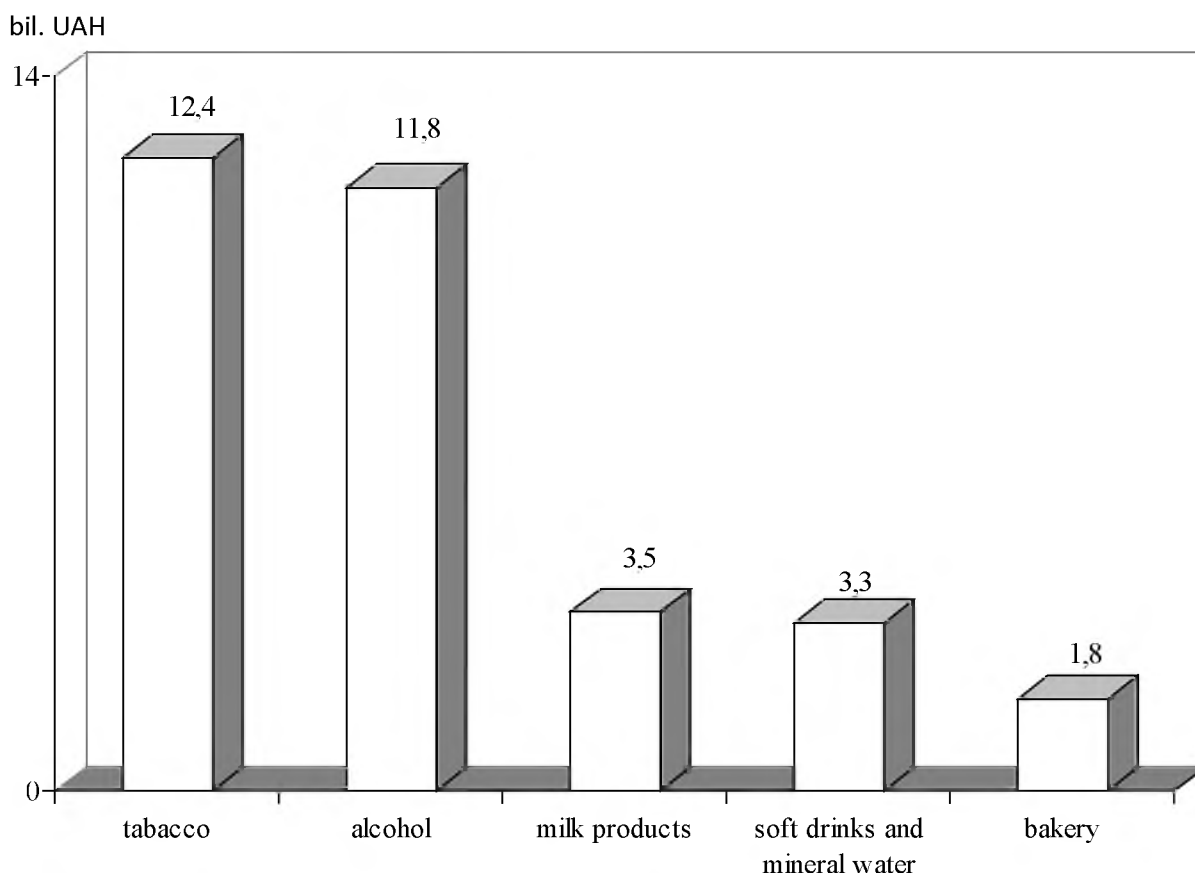
At the same time the WHO fixes only quantitative measure of alcohol consumption, but there is also qualitative. So, if among the inhabitants of Moldavia and Hungary there is a practice to drink dry wine, which in small doses is useful for the organism, and the population of the Czech Republic prefer other drinks beer, in Ukraine (as well as in the Russian Federation) in the greatest demand spirits, primarily vodka [6].

Data analysis of the Ukrainian Medical and Monitoring Centre for Drugs and Alcohol of the Ministry of Healthcare of Ukraine regarding the consumption of the PAS alcohol in Ukraine show that [7]:

- approximately 60% of children try alcohol among parents;
- the average age of a child who uses alcohol is 9 years old;

- over the last 5 years there has been an increase of 3% in the number of children who consume alcohol in adolescence (12-14 years);
- consisting of officially registered alcohol-dependent individuals (about 700 thousand) to 50% (350 thousand with alcohol dependence) are not included in official statistics;
- about 95% of the negative consequences of irrational use of alcohol for society (accidents, antisocial behavior, domestic and industrial injury) associated with consumption of alcohol.

Based on the data of the State Statistics Service of Ukraine [7], Ukrainians in average 6 months in retail trade spent 11.8 billion UAH for the purchase of alcohol (Fig. 1)



**Fig. 1. Typical monthly spending costs among Ukrainians in retail trade for 6 months**

In the Russian Federation, as well as in other countries [8], the consumption of alcohol depends on its price. Analysis of the literature showed that in Russia there is from a 1999 revenue growth of Russians is a serious factor in the development of alcoholism among the population [9].

The following are statistics from other countries on the correlation of alcohol abuse and mortality. In the U.S., the percentage of young people aged 18 years and older who regularly consume alcohol (at least 12 drinks) was 50.9%; and rarely consumed (1-11 drinks) – 13.6% [10, 11]. Approximately 10% of the total number of U.S. children live with alcoholic parents, causing their health at increased risk [5].

Scientists predict alcohol over the next 20 years will be the cause of death to 210,000 residents of England, third of the deaths will be caused by liver disease because of the abuse by the PAS alcohol. Other deaths related to abuse of alcohol, may occur as a result of accidents, road accidents, violence and suicide, or will be the outcome of chronic diseases such as high blood pressure, stroke, heart disease and cancer [12, 13]. Notes that alcohol abuse is not just a British problem, it exists in all the world's richest countries. Also in 2009, British scientists point to the need for doubling the price of the most popular alcoholic beverages in the country – beer and wine [5].

When reviewing statistics on the spread of alcohol dependence in the world, there have been identified countermeasures, namely: • impose restrictions on the sale of alcohol in retail mar-

lets, ensure compliance with the prohibitions on advertising of alcohol, raise taxes on alcoholic beverages; • establish clear time limits in legal circulation of alcohol sales; • reduce the number of markets selling alcohol (per 1 sq. km.); • prohibit the sale of alcohol to intoxicated people; • create network of sobering-up stations; • enter the lower threshold prices for alcohol, cheaper to sell it should be prohibited; • double the price of the most common alcohol beverages (beer and wine); • most importantly – be sure to implement and realize, not just adopt these standards [14, 15, 16].

**Conclusion.** Made a review of statistical data on the turnover of the psychoactive substance alcohol within the Russian Federation, Ukraine, United States, Moldova, Hungary, Czech Republic and England. Given the facts from the negative consequences of abuse by the psychoactive substance alcohol and dynamics of alcohol dependence to develop measures to counter the spread of alcoholism among the population. Shown that the WHO fixes only quantitative indicators of abuse by the alcohol, but it is necessary to consider the quality indicators as well (cost, alcoholic beverages). Demonstrated the presence of causal link between abuse the psychoactive substance alcohol and a variety of mental and behavioral disorders, and other non-communicable health problems, injuries from road traffic accidents and the incidence of socially dangerous infectious diseases (tuberculosis, hepatitis, HIV/AIDS).

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