

**THE IMPACT OF FOODBORNE DISEASES ON PUBLIC HEALTH:
STATISTICAL ANALYSIS AND EFFECTIVENESS OF
PREVENTIVE MEASURES**

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This article highlights the impact of foodborne illnesses on public health. According to WHO, hundreds of millions of people are affected by food poisoning each year, with hundreds of thousands of deaths. The issue is also highly relevant for Uzbekistan, posing significant risks to children and the working-age population. The study examines the main causes, statistical analysis, and the effectiveness of preventive measures..

Introduction: Foodborne illnesses are one of the most serious threats to public health. They often occur as a result of microorganisms, viruses, or parasites and are widespread among the population. Such conditions negatively affect not only individual health but also the overall well-being of society. Children, the elderly, and people with weakened immune systems are particularly at risk. Therefore, ensuring food safety and effectively implementing preventive measures are among the most urgent tasks today.

Main part: According to the World Health Organization (WHO), foodborne diseases affect millions of people worldwide each year and result in hundreds of thousands of deaths. Children, the elderly, and people with weakened immune systems are the most vulnerable

groups. Beyond individual health, foodborne illnesses create a heavy burden on healthcare systems, reduce economic productivity, and negatively affect social well-being.

In Uzbekistan, food safety remains an urgent issue. In 2023, during the first eight months, 39 group poisoning incidents were recorded, affecting 414 people, including 86 children, and causing 2 deaths. In the first five months of 2025, 14 cases with 42 victims were reported, the majority linked to botulism. These cases highlight the risks associated with poor sanitary conditions in public catering facilities and unsafe food preservation practices at home.

The leading causes of food poisoning include violations of hygiene rules, insufficient sanitary control in kitchens and public dining places, and improper home canning. Addressing these challenges requires comprehensive preventive measures: strengthening sanitary inspections, improving food safety regulations, and raising public awareness about proper hygiene. In particular, educating families about safe home preservation techniques and improving conditions in schools and kindergartens can significantly reduce risks.

Conclusion: Foodborne illnesses continue to pose a significant challenge to public health worldwide and in Uzbekistan. They negatively affect not only individual well-being but also the healthcare system and economic stability. Vulnerable groups such as children, the elderly, and people with weakened immunity are at the highest risk. To reduce these threats, it is crucial to strengthen food safety regulations, ensure strict sanitary control in public catering facilities, and improve hygiene education among the population. Preventive actions at schools, kindergartens, and households play a vital role in protecting society from the harmful consequences of foodborne diseases.