

## **Abstract**

**Background:** Reporting of outbreaks is essential for a correct understanding of the epidemiology of foodborne diseases. With the correct reporting of outbreaks, it is possible to identify the type of contaminated food, the location of the outbreak and the factors affecting the consumption of contaminated food and use it in the control and prevention strategy.

**Aim:** The present study was conducted with the aim of investigating the epidemiology of the outbreak of foodborne diseases in Ardabil province during 2010-2019.

**Materials and methods:** In the current study, the study population included all cases of food-borne diseases recorded in all cities of Ardabil province during the years 2010-2019. The desired data were obtained from the health department of Ardabil University of Medical Sciences. The basis of diagnosis was all suspected patients who shared food or drinking water and shared digestive symptoms. After receiving the results of the tests of water, food and human samples taken at the time of the flood, the cause of the flood was determined and the results were recorded as the final report of the flood in the portal of the Labor and Environment Health Center. After collecting the information in the researcher's checklist, it was entered into statistical software to analyze the data using statistical software.

**Results:** In the years 2011 and 2012, 31 and 51 outbreaks (a total of 82 food outbreaks) were reported in Ardabil province. The most outbreaks were reported in the months of September and August with 19 (23.2%) and 18 (22%) respectively. Khalkhal city with 18 floods (22 percent), Ardabil city with 15 floods (18.3 percent) and Beile Swar city with 13 floods (15.9 percent) had the highest number of floods. Outbreaks were reported in 29 cases (35.4%) in urban areas and in 53 cases (64.6%) in rural areas. In 26 cases (31.7 percent), the predominant age group of outbreaks was 16 to 30 years, and in 24 cases (29.3 percent), outbreaks were without age groups. The dominant gender group was male in 24 cases (29.3%) and female in 41 cases (50%). In most cases, the main place of flooding was houses. In terms of transmission route, 40 cases (48.8%) were through food, 30 cases (36.6%) were unknown, 8 cases (9.8%) were through water, and 4 cases (4.9%) were water and food. It was reported as a route of transmission. The main contaminated food was unknown in 23 cases (28 percent), and in 14 cases (17.1 percent), kebab/broth/other meat foods were reported,

followed by drinking water, fruit/juice, and chicken/poultry. The identified pathogen of outbreaks was unknown in 72 cases (87.5%) and the responsible pathogen was identified in only 10 cases (12.5%).

**Conclusion:** Food-related outbreaks in Ardabil province during the 2010s occurred mostly in the months of August and September and in the summer season. Khalkhal and Ardabil cities had the most floods. These outbreaks were mostly in urban areas and in the age group of 16 to 30 years. The dominant gender group was mostly women. In most cases, the main place was houses and the main food was kebab/broth. The pathogen responsible remained unknown in most patients.

**Key words:** : Epidemiology, Disease outbreak, Foodborne and Waterborne diseases