ANALYSIS OF THE INCIDENCE OF THE POPULATION IN THE REPUBLIC OF BELARUS WITH HIV INFECTION IN THE PERIOD FROM 2006 TO 2016

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The steady increase in the number of people infected with the human immunodeficiency virus (HIV) has become a serious public health problem. The study of the incidence and prevalence of HIV infection has the ultimate goal of developing preventive measures and preventing the spread of the population. A retrospective analysis of the incidence of the population of the Republic of Belarus with HIV infection for the period 2006-2016 was carried out, the territorial features of the epidemic process of infection in the regions were studied.

Keywords: HIV infection, epidemiology, incidence, prevalence, long-term dynamics, tendency, incidence structure, prevention.

HIV infection is one of the most pressing problems worldwide. For Belarus, this problem is also of great importance. According to the statistics in the republic for the period 1987–2017 24686 HIV-infected were registered [2]. Over 1,000 people with HIV infection is registered annually in the country.

The aim of the work was to conduct a retrospective analysis of the incidence [1] of the population of the Republic of Belarus with HIV infection in 2006–2016, to study the territorial features of the epidemic process in regions, to assess the age structure of the incidence, sex distribution, and to study the route of infection.

Over the period of observation, a steady growth trend was revealed in the dynamics of the incidence of the population of the Republic of Belarus with HIV infection (R2 = 0,88). By 2016 the incidence rate increased by 3,3 times compared to the initial year of the study and amounted to 25,2 cases of HIV infection per 100 thousand population versus 7,7 % in 2005. The calculated average annual values of the incidence of HIV infection in the regions showed that the most unfavorable situation for the incidence was in Gomel, Minsk regions and the city of Minsk (36,0; 15,7 and 15,1 cases per 100 thousand population, respectively). The average annual incidence rate in Mogilev region was 8,6; Vitebsk – 6,8; Brest – 6,7 and Grodno – 6,1 cases of HIV infection per 100 thousand people. In the incidence of HIV infection among the population of the republic, the male population accounts for an average of 60 % of all cases of diseases, and the female population accounts for 40 %. In the dynamics of morbidity, a steady increase in morbidity was observed by 3,2 times among men and 2,1 times among women (R2 = 0,83 and 0,89, respectively). The average annual HIV infection rate among the male population was 16,3 % , which is 1,5 times higher than the female – 11,2 %. Most HIV-infected people are registered in 3 age groups: 30–39 years old – 43,7 % in 2016 (36,8–2006); 20-29 years – 20,5 % in 2016 (51,8 % – 2006); 40 years and older – 34 and 9,8 %, respectively. In the dynamics of morbidity, there has been a steady increase of 4,1 times for people aged 30–39 years, 1,5 times – for people aged 20–29 years. In the incidence of HIV infection in the population aged 40 years and older, the increase in indicators was more than 10 times. In the structural distribution of the incidence of HIV infection in the population of the Republic of Belarus by causes of infection, cases of diseases in the result of heterosexual contacts and injecting drugs predominated. The social structure of HIV-infected people is dominated by people working in specialties (41 %), people without specific activities (31 %) and people from places of imprisonment (14 %). A study of the distribution of newly diagnosed cases of HIV infection in 2016 due to examination reasons at the time of identification showed that most often cases of HIV infection were registered among patients examined voluntarily (35 %).

The study of the dynamics, territorial differences and structure of the incidence is important for the development and implementation of effective preventive measures to prevent the spread of HIV infection in the population.

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