

The aim of the study was to study the dynamics of cancer incidence rates of breast cancer in different age groups in the Republic of Belarus for the period from 1991 to 2014.

In the study of the epidemiological situation in the Republic of Belarus, it was determined that within 1991-2014 the incidence of breast cancer ranged from 39.2 in 1994 to 81.3 cases per 100 000 women in 2014, for urban dwellers it was from 42.2 per 100 000 in 1991 to 86.6 per 100 000 in 2014, and for rural population the number was to 33.2 per 100 000 in 1991 to 63.3 per 100 000 in 2014. Long-term dynamics of the disease was moderately tended to increase with an average growth rate of 1.85%. The growth of the average incidence was due to the rising incidence of women 60-74 years old, while the incidence levels of women of working age remained unchanged.

The age distribution of the disease had its own characteristics. The incidence of growth began with 25–29 years of age and continued until 60–64 years, and each subsequent year of life increased the risk of disease developing approximately to 5 cases per 100,000 women. Further with age the morbidity gradually decreased. The peak of breast cancer morbidity accounts for the age group of 60–74 years old.

In the analysis of morbidity in regions and in Minsk the highest incidence rate is observed in 2014 among Minsk residents (59.2 per 100 000 population) and the smallest one in Brest region (40.1 per 100 000 population), but no statistically significant differences in other regions of the country have been identified. When comparing the incidence of urban and rural residents it has been revealed that the incidence rate is higher in women of the city than in the village (1.6 times).

The increased incidence may indicate an improvement in the quality of diagnostics in identifying a larger number of patients in the early stages of the disease.

The control the growth of breast cancer is not possible due to the lack of effective ways of primary prevention. The early diagnosis of the disease is becoming more and more significant and may have influence mortality rates. The reduction in the mortality and morbidity ratio over the past decade gives evidence of the effectiveness of medical treatment.

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## **THE ANALYSIS OF THE DYNAMICS IN THE INCIDENCE OF RESPIRATORY DISEASES IN MINSK POPULATION WITHIN THE PERIOD OF 2006-2014**

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**Timeliness.** Respiratory diseases (RD) take the 1st place among other diseases. Every year there is an increase in the number of people with the given pathologies.

**The objective** is to study the dynamics and the structure of respiratory diseases morbidity, the air condition affecting the spread of the disease.

**Objects and methods of research.** The object of research is the statistical data on children's and adult's respiratory diseases in Minsk for the period from 2006 to 2014 as well as the official statistics of the Ministry of Health of the Republic of Belarus and the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus.

**Results and discussion.** The analysis of the dynamics of the overall incidence of adult and children population in Minsk showed that the structure of the overall incidence of adult and children population, RD in Minsk ranked first (62%, 77%) in 2006, then the eye diseases and the diseases of the musculoskeletal system follow with decrease (4%, 1%). In 2014, the structure of the overall incidence of adult and children population with RD continues to occupy the first place (23%, 66%).

The musculoskeletal system diseases moved to the second place (15%). The analysis of statistical series of the adult and children incidence of the respiratory system diseases in Minsk within 2006–2014 revealed an upward tendency to an overall morbidity ( $A_0 = 35\ 221,69$ ,  $A_1 = 1.02\%$ ). It was also found that the children suffered from the diseases by five times more than adults. The analysis of the environmental impact on the incidence of respiratory diseases in adult and children population in Minsk within the period of 2006–2014 allowed determining the dynamics of the interrelation between the air pollutants emissions and the overall incidence of the respiratory system diseases. Spatial analysis of the interrelation of air pollution and the incidence of RD in adult population in Minsk showed a tendency to the total RD incidence with the increasing of air pollution.

**Conclusions.** There is the retrospective analysis of the population incidence which was held in Minsk for the period of 2006–2014. The correlations between the environment and the RD incidence of adult and child population were investigated. The tendency to stable growth in the incidence of the disease among adults and children was revealed. The analysis of the environmental impact on the morbidity showed the correlation between the dynamics of emission of air pollutants and the overall incidence of the respiratory system diseases.

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## **REPRODUCTIVE HEALTH OF COUPLES IN ASSISTED REPRODUCTIVE TECHNOLOGY PROGRAMS**

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The problem of infertility, regarded as a part of the physiology and pathology of the human reproductive function, is an important part of modern medicine. This is not only a medical, but also a social problem, which once again highlights its im-