

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.

Brutskaya M.¹, Kamlyuk A.², Kokorina N.¹

¹ *International Sakharov Environmental Institute of Belarusian State University,
Minsk, Republic of Belarus;*

² *Republican Scientific and Practical Center "Mother and Child"
Minsk, Republic of Belarus*

REPRODUCTIVE HEALTH OF COUPLES IN ASSISTED REPRODUCTIVE TECHNOLOGY PROGRAMS

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-

portance. Assisted reproductive technologies (ART) give a real opportunity to manage the processes of human reproduction.

The successful outcome of ART depends not so much on the technical complexity and thoroughness of execution of microsurgical manipulation, but on the health of women with induced gestation and the fertility of her husband, as well as the primary causes of infertility and the number of implanted embryos.

The aim was to study the health status of reproductive function of couples in the application of ART.

The study provided data on patients suffering from infertility. The studies were conducted on the basis of RSPC "Mother and Child".

Results of the study. The health status of 40 couples suffering from infertility who used ART was analyzed. It was found that the risk factors for reproductive disorders in women are: age, burdened obstetrical history, endocrine pathology and inflammatory diseases of the pelvic organs. The factors for infertility in men include: oligospermia, astenospermia, teratospermia and azoospermia.

In studying the reproductive health of couples who used IVF, it was found that a major amount IVF-couples with female infertility factor at the age from 31 to 35, had a duration of infertility from 3 to 13 years (45%). The research showed that the main risk factors of reproductive health disorders in women are: age, burdened gynecological diseases, endocrine pathology and inflammatory diseases of the pelvic organs.

In studying the reproductive health of couples who used ICSI, it was found that male infertility was a factor in the investigation; astenospermia (40%), oligospermia (25%), terato spermia (20%), azoospermia (15%).

Studying the causes of infertility in female groups undergoing IVF and ICSI had found that the predominant cause of infertility in both groups was tubal-peritoneal factor as a result of the absence of one or both fallopian tubes after unilateral or bilateral tubektomia (40%). In comparative characterization of IVF and ICSI, it was found that the IVF method is fundamental in overcoming infertility when the female's reproductive health is compromised, as a result of tubal-peritoneal infertility factor (40%). The ICSI method is used in most cases with male factor of infertility (80%), as a consequence of astenospermia (40%).