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**THE INFLUENCE OF ENVIRONMENTAL FACTORS ON  
THE HEALTH OF PREGNANT, THE FETUS IN UTERO  
AND NEWBORNS**

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Проанализировано демографические показатели по Запорожской области и Украине, данные по загрязнению атмосферного воздуха, воды, почвы, реакции эмбриона и плода на повреждающее действие факторов внешней среды. Приведено статистические данные о рождении детей с аномалиями развития в Запорожской области.

*Экология, репродуктивная патология, аномалии развития плода, пренатальная комиссия.*

**INTRODUCTION**

Reproductive health is one of the most important components of the health of the nation. The reproductive health status of the population is essential for the reproduction of the population, preservation of life and health of the new generation. To the main factors that affect the state of human reproduction, first of all, the consequences of socio-economic problems and harmful environmental factors. Industrial activity of the Zaporozhye region has an extremely negative effect on the ecological well-being of the area and population health. Air emissions of the enterprises of metallurgical complex are mutagenic and carcinogenic activity and represent a serious danger for the present and future generations. Establishing that about 10% of the active chemical compounds have mutagenic and carcinogenic activity and constitute a serious threat to modern and have future generations.

Influence on the organism of a pregnant lead results in miscarriage, high perinatal mortality, delayed growth and development of the fetus. Li causes the formation of heart disease, vascular anomalies, mercury – various neurological disorders, delay of psychological development, cerebral palsy, blindness and deafness.

## **RESEARCH OBJECTIVE**

To analyze the demographic indicators for the Zaporozhye region and Ukraine, data on the pollution of air, water, soil, the reaction of the embryo fetus on the damaging effect of environmental factors ,as well as to analyze statistical data of birth of children with abnormalities in the Zaporozhye region.

## **MATERIALS AND METHODS**

The air pollutants have embriotoxic impact on the fruit develops. Most fruit sensitive to the effects teratogenic factors in the period up to 8 weeks of pregnancy, when organogenesis. The number of harmful substances can accumulate in breast milk of women (FGD, hexachloran and metabolites).In Zaporizhzhya region has developed a critical demographic situation. Mortality of the population considerably exceeds birth (2012 - the birth-rate is 10,6 per 1,000 population, Ukraine - 11,4; mortality is 14,8 per 1,000 population, Ukraine - 14,5; 2013. - 10,2 and 14,9 respectively). Constantly decreasing life expectancy and at this time it is already 10% lower than in 1990. Population growth in the Zaporizhia region in 2012. "-" for 4.2 (Ukraine-3,1). Increased rates of maternal mortality in 2013 in the Zaporozhye region and amounted 16,54 100 thousand women whose pregnancy has ended (in Ukraine - 12,3).

The percentage of deliveries with pathology in Zaporizhzhya region has increased by 2013 and reached 36.6% of all deliveries (Ukraine - 30,8%). The mortality of children of the 1st year of life remains high and amounts to - 8,11 (Zaporizhzhya oblast, Ukraine - to \$ 7.91) per 1000 newborns. Experts proved that air pollution increases the probability of having children with birth defects. The research conducted in the countries of Europe, USA, South Korea demonstrate the direct dependence of concentration of harmful substances in the atmosphere and premature birth, low weight babies, miscarriages and child mortality. The problem of the influence of environmental factors on pregnant women and fetus study obstetricians, teratology, embryology, physiologists, toxicologists, reproduction, and other specialists.

In the Zaporozhye region has created a system of medical care what to prevent the birth of children with congenital defects. In KU "Regional medical center for human reproduction" ZOR work of the regional Advisory Commission on prenatal ultrasound diagnosis and genetic counseling.

### **CONCLUSIONS**

1. Health protection of mother and child, in the conditions of demographic crisis remains one of the most urgent among the most adverse factors, negatively influencing the state of health of the pregnant woman and the fetus is the pollution of air, water, soil.

2. Technological impact on the health of the inhabitants of Zaporozhye region is one of the main causes of the pathology of pregnancy, infant mortality, morbidity, the occurrence of congenital malformations and hereditary diseases, and the growing number of infertile marriages.

3. Unfortunately, despite created the system of rendering medical-diagnostic help to pregnant women, the rate of decline in the number of children born with congenital defects, shortcomings remain.

4. To reduce the number of children being born with malformations is necessary to keep to a healthy lifestyle, giving up Smoking, alcohol consumption, reduction of influence of harmful factors of environment.

5. There is a need for the allocation of new areas of activity, combining medicine and ecology - environmental reproduction.

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Авраменко Н.В. Вплив факторів зовнішньої середовища на стан здоров'я вагітних, внутрішньоутробний стан плоду та новонароджених / Авраменко Н.В. // Питання біоіндикації та екології. – Запоріжжя: ЗНУ, 2014. – Вип. 19, № 1. – С. 258–262.

Проведено аналіз демографічних показників по Запорізькій області, реакції ембріону та плоду на руйнуючу дію факторів зовнішнього середовища. Наводяться статистичні данні щодо народження дітей з аномаліями розвитку у Запорізькій області.

Бібл. 13.