

medicine shows considerable progress in the development of perspective methods of prevention, diagnostics and treatment. Advanced technologies are accustomed, new medicines are created.

Medical care for a rural population is built on the basis of the principles of the organization of health care, however the nature of resettlement, the features of rural economics, the specifics of working conditions and life, and also other factors that influence nature of medical care and demand care of application of special organizational forms and methods of work in the village from health-care agencies.

The purpose of present work is to give an assessment to a condition of the medical and sanitary help to country people of Republic of Belarus.

The analysis of data of National statistical committee of Republic of Belarus and Sector of methodology and medical statistics of the Ministry of Health of RB about a condition of health system in the village has been carried out.

The number of the health workers having the higher medical education in Republic of Belarus has increased from 1995 to 2014 by 7,8% has made 57,8 on 10 000 population. The number of health workers with secondary education has increased from 1995 to 2014 by 1,6% and has made 131 on 10000 population.

The number of the hospital organizations in city settlements remains practically at one level from 2010 for 2014 (for the end of 2014 – 388) while in rural areas the number of the hospital organizations has decreased from 2010 to 2014 by 10,1% and for the end of 2014 has made 238.

There is a growing outpatient – polyclinic organizations in urban areas from 2010 to 2014. (6% at the end of 2014. The number of 649 organizations). In rural areas, there was decrease in the number of out-patient – polyclinic organizations (decreased by 1.9% at the end of 2014 amounted to 810.). The number of first-aid and medical stations in rural areas, which are the main link in the health care system in rural areas decreased from 2010 to 2014 by 7%.

Lobay M.¹, Ikonnikova N.¹, Puchkova T.²

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

² *Belarusian State University, Minsk, Republic of Belarus*

BIOCHEMICAL CHARACTERISTICS SUBMERGED MYCELIUM OF FUNGI OF THE GENUS *CORDYCEPS*

Fungi of the genus *Cordyceps* are a traditional medicament and solution of prevention West medicine for many centuries. The combination included in the composition of this medicinal fungus, improve the immune system, increase resistance to various pathogenic microorganisms, have anti-tumor effect, increase the adaptive possibilities of the body, have antioxidant activity, prevent premature aging. In nature, fungi of the genus *Cordyceps* are found in remote areas, therefore, at now for the production preparation on their basis is used

mycelium that gets by biotechnology. Nowadays interfacial (agar nutrient medium) are spread, submerged (by liquid media) and solid state (grain, sawdust substrate) the cultivation of these fungi.

On agarized environments fungi of the genus *Cordyceps* form a sufficiently wide range of enzymes, which are able to degrade the complex compounds the different origin. We conducted a qualitative color reaction in cultures of *C. sinensis* 405 and *C. militaris* 403 revealed the presence of enzymes of carbohydrate (amylase, cellulase, xylanase, glucosidase), nitrogen (protease, nitrate reductase, urease) and lipid (lipase) metabolism and redox processes (laccase, tyrosinase, peroxidase).

Given the biochemical characteristics of submerged mycelium of *C. sinensis* 405 and *C. militaris* 403. Total protein content was 21.2–22.5% and 14.3–15.4% in polysaccharides – 7,6–8,3%, lipids – 6,2–7,4%, total phenolic compounds, 950–1100 mg%, respectively.

Investigated the antioxidant activity of the extracts of fungi against antioxidants-ionol. High activity of different alcoholic extracts of *C. sinensis* – 78, 9–88, 6%. High enough antioxidant activity found in aqueous extracts (of 72.9–78.6%) of *C. militaris*.

The high antibacterial activity of the mixture of the culture fluid with a finely divided biomass strains of *C. sinensis*.

As a result of research it is established that the mycelium and culture liquid of fungi of the genus *Cordyceps* contain a complex of biologically active compounds carbohydrate, protein, lipid and phenolic nature. Further study of the fungi of the genus *Cordyceps* identify their features and properties that will enhance not only their scope, but also define alternative methods of cultivation with increase in productivity of production of biologically active substances.

Lutchenko V.

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

THE ANALYSIS OF THE DYNAMICS OF THE INCIDENCE OF RESPIRATORY DISEASES OF THE POPULATION OF THE REPUBLIC OF BELARUS IN 2006-2014

The relevance of a problem of respiratory diseases is that they form very high levels of incidence, disability and mortality of the population, remaining at the same time potentially preventable. On their hum the risk of acute respiratory diseases more significantly increases in combination with which the threat of life to the chronic patient and to the elderly population.

Research objective is to carry out the analysis of dynamics of incidence of diseases of respiratory system of the population of Republic of Belarus in 2006–2014.