ABSTRACT

of Sandugash Nurlybekovna Alipbekova's dissertation on the topic "Scientific substantiation of improving the health status of the working-age population of the Turkestan region", submitted for the degree of Doctor of Philosophy (PhD) in the specialty "6D110200-Public Health"

Research relevance

Residents of the densely populated Turkestan region require systematization of the overall level and dynamics of health indicators among the population, being located mostly in rural areas. The increase in malignant neoplasms from year to year, which negatively affect the health of the local population, is caused not only by insufficient health funds, especially due to insufficient provision of rural populations with medical facilities and specialists, an increase in the number of people with age, the specifics of rural working conditions, and poor quality of provision for household needs.

Research purpose. Improving the organization of medical and preventive measures aimed at improving the health of the working-age population and reducing the incidence of diseases in the Turkestan region.

Research objectives:

1. Comprehensive assessment of the health status and dynamics of morbidity rates of the working-age population in the Turkestan region and its districts.

2. Identification and grouping of dangerous causes affecting the formation of health indicators in administrative districts, depending on their characteristics.

3. Determination of structural levels of indicators of territorial morbidity and the formation of a model of social and hygienic measures with an assessment of the availability of basic health funds.

4. Scientific substantiation of measures for the formation and improvement of public health groups in administrative districts using an integrated assessment.

The object of the study: a questionnaire and a statistical map of morbidity, health indicators, morbidity rates.

Research methods:

A comprehensive assessment of health indicators and morbidity has been applied.

An integrated assessment was carried out for all grouped districts of the region. Based on the results of a comprehensive assessment, risk levels were identified in the administrative zones of the Turkestan region. Groups of areas with high morbidity rates are classified, as well as from areas (cities) with low risk activity to the highest.

A short-term forecasting method. The short-term forecast can be implemented graphically via Microsoft Excel. The forecast is based on the small squares method using an approaching linear trend line (approximation). When selecting a trend line, Microsoft Excel automatically calculates the value of the R2 indicator, which characterizes the reliability of the approximation: the closer the value of R2, the more the trend line approximates (approximates) the phenomenon under study.

The correlation density between morbidity and its malignant manifestations has been revealed. The population is 80,593 (4% of the region's population). The number of selected statistical maps is 7285. To provide fixed assets and predict the impact of

changes in performance indicators, models based on a regression equation to the health status of the region's population have been developed. All analyses were performed by the SPSS v.17 software teams (SPSS Inc., Chicago, IL). The study was approved by the Ethics Committee of the International Kazakh-Turkish University named after Khoja Ahmed Yasawi.

Research scientific novelty.

- A retrospective assessment of the current dynamics of health indicators of the working-age population of the Turkestan region has been carried out.

- A link has been identified between the health indicators of the population and the causes of risk affecting it.

- Based on the totality of the real levels of health indicators in the region, social and medical groups of districts of the Turkestan region have been created, and a model of preventive programs has been developed in accordance with the level and structure of health indicators.

- A system of specific medical, economic, socio-hygienic and ecological-hygienic measures has been developed, which are carried out in administrative districts in accordance with the legislation for the formation of identified documentary indicators.

Provisions submitted for defence:

1. The level of development and structure of health indicators of the population of the Turkestan region depend on the patterns of the spread of dangerous causes of their occurrence;

2. Health indicators and morbidity of the population increase the effectiveness of preventive measures, being the basis for the consolidation of administrative districts according to socio-medical and ecological-hygienic features.;

3. The model of the preventive program of administrative districts and its effectiveness are justified by the possibilities of providing social and material reserves of the healthcare system in containing risk factors in the study.

Research theoretical and practical significance is determined by the results of the study, which provides objective information on the morbidity and mortality rates of the working-age population of the Turkestan region. The study and assessment of the health status of the population will make it possible to develop a system of measures aimed at preserving and strengthening public health. The results of the analysis of outpatient services, the data obtained are used in making strategic, tactical, and operational decisions in the management of medical organizations. Measures to improve the health of the population and improve the activities of medical organizations are applied in the healthcare system of the region.

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Research results:

1. In the period from 2014 to 2021, due to a decrease in the birth rate from 30.12 to 25.52 (per 1000 population), the natural growth rate decreased from 25.52 to 23.12. The primary morbidity rate in 2021 was 482.6%. With an increased primary morbidity

of the working-age population, the rates of widespread diseases of the cardiovascular system, respiratory pathologies and malignant neoplasms are higher. The total incidence rate of the population in the Turkestan region in 2019 was 948.1 per 1,000 people. This indicator is significantly lower than in 2016 (976.2%). If we classify the composition of the general morbidity, then respiratory pathologies account for -17.5%, and diseases of the circulatory system -14%, then these two types of morbidity are the main components of the general morbidity. Of course, as for the indicators of diseases of the digestive system, in subsequent years (within 5 years) there has been an increase, reaching 9.2%. In the distribution of types of morbidity into ranked places, 4th place – diseases of the nervous system (6.7%), 5th place – ocular and concomitant pathologies (6%), infectious and parasitic diseases (5.8%) – 6th place, injuries and poisoning (5.7%) - 7th place. There is also a significant proportion of diseases of the musculoskeletal system (up to 5.5%). And the value of the total incidence of up to 5.3% is accounted for by diseases of the skin and subcutaneous peeling.

2. The administrative districts of the Turkestan region were grouped in accordance with the rules of evidence-based medicine. The level of general morbidity in areas with low health risk ranged from 796.2 to 874.5‰, in areas with medium risk- 874.6 – 1053.2‰, in areas with high risk-1053-1178.4‰, in areas with high risk – 1208.4 – 1315.9‰. The overall incidence in areas forming a territory with a low risk of public health effects is 796.2%. This incidence includes diseases of the respiratory system (24.7%), circulatory system pathologies (14.6%), injuries and poisoning (10.2%), diseases of the musculoskeletal system and connective tissue (8.6%), diseases of the digestive system (7%), diseases of the urinary and reproductive systems (5.6%). The lifestyle and quality of medical care affect the health of the inhabitants of these Territories.

In areas of moderate danger, there is an increased level of certain infectious and parasitic diseases, Diseases of the blood and hematopoiesis and endocrine system, nutritional and metabolic disorders, mental disorders, behavioral changes, a high degree of formation of diseases of the nervous system, an increase in the level of diseases of the blood and circulatory system, an increase in the incidence of digestive organs, an increase in skin diseases and directly It is associated with an increased risk of diseases of the subcutaneous tissue, musculoskeletal system. In addition, the health of the population is directly related to the high hygienic normal content of minerals, water, and soil used in agriculture.

Among the population living in a high-risk area for health, there are certain infectious and parasitic diseases, Diseases of the blood and hematopoietic system, endocrine system, eating disorders, metabolic disorders, behavioral changes with mental disorders, diseases of the nervous system, pathologies of the circulatory system, diseases of the digestive system, diseases of the skin and subcutaneous tissue, diseases of the bone diseases of the muscular system, diseases of tissue diseases, diseases of the genitourinary system are formed at a high level. The contamination of drinking water and soil with pesticides in these territories significantly exceeds normal hygienic indicators.

Among the population living in high-risk areas, malignant neoplasms have a high incidence of diseases of the blood and hematopoietic system, diseases of the

endocrine system, mental disorders, diseases of the nervous system, pathologies of the circulatory system, diseases of the respiratory and digestive systems. The harmful chemicals released during uranium mining among the population in the area clearly exceed normal hygiene standards.

3. Based on the results of the dissertation work, a model of preventive measures carried out in the districts of the Turkestan region has been developed. During the construction of the model, the morbidity rates of the population of the districts of the Turkestan region were obtained. Malignant causes have been identified that directly affect morbidity and morbidity rates. Based on these indicators, the districts are grouped from a medical and hygienic point of view. As a result of the work, the districts were classified as districts of low, medium, upper, and higher rank. The implementation of practical recommendations in the work of polyclinics will help prevent socially significant diseases, early diagnosis, and reduce overall morbidity.

4. Based on integral indicators, the classification of territorial units of the Turkestan region has been carried out, where the health status of the population, the activities of the healthcare system and the provision of fixed assets are the basis for identifying favorable and unfavorable areas. From the point of view of the convenience of the situation, 5 groups of districts were identified: 1)very favorable conditions; 2)favorable conditions; 3)average conditions; 4) unfavorable conditions; 5) extremely unfavorable conditions. According to population health indicators, favorable conditions were registered in three districts of the region – Tulkubassky, Tolebiysky and Ordabasinsky; unfavorable – Sairamsky, Sozaksky and Baydibek districts; in seven districts, the health status of the population is close to the regional average. According to the level of activity of healthcare institutions, two districts of the region are unfavorable – Baydibek and Otyrar, and favorable conditions are observed in the cities and districts of Maktaaral, Saryagash, Shardara, Turkestan, Ordabasy, Kentau.

Personal contribution of the doctoral student

All sections of the dissertation research purpose, research objectives, collection and processing of materials, basic principles of work, conclusions and practical recommendations are formulated and written by the author himself.

Approbation of the work.

The results of the dissertation work were presented at the following scientific and practical conferences:

1. The tenth international scientific – practical conference «Global science and innovations 2020: Central Asia». Kazakhstan, Nur-sultan, 17 august 2020.

2. 11th international conference. Science and society – Methods and problems of practical application. Held in Hamilton, Canada. 15th March 2021.

3. International Scientific and Practical Conference "International integration as a direction for the development of improving the teaching of fundamental disciplines in medical universities", dedicated to the 30th anniversary of Independence of the Republic of Kazakhstan on April 09, 2021. Semey

Publication of the results of the dissertation work. 11 articles on the topic have been published. Of these, there are 5 articles in the publications recommended by the Committee, Thomson Reuters, 1 article in foreign publications based on Scopus, 2

articles in the publications of the Republic of Kazakhstan, and 3 article in the materials of the international conference.

The structure and scope of the dissertation. The dissertation work consists of the content, definitions, symbols and abbreviations, introduction, literature review, research methods and materials, research results and discussion, conclusion, list of references and appendices.

The total number of references is 121, with references to scientific papers and dissertations by domestic and foreign scientists.