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## CREATION OF A NATIONAL NID EPIDEMIOLOGY MANAGEMENT MODEL IN THE REPUBLIC OF UZBEKISTAN, MECHANISMS OF EFFECTIVE PREVENTION

Sh.B. Irgashev\*; N.N. Fayzieva\*\*; D.I. Ermetova\*\*\*; U.I. Mamadaliyeva\*\*\*\*

\*Professor,

Doctor of Medical Sciences, Head of the Department of Valeology (Preventive Medicine), Center for the Development of Professional Qualification of Medical Workers, UZBEKISTAN Email id: sh.irgashev@gmail.com

\*\*Ph.D. Assistant, Department of Valeology (Preventive Medicine), Center for the Development of Professional Qualification of Medical Workers, UZBEKISTAN Email id: nozima.fayz@gmail.com

\*\*\*Assistant,

Department of Valeology (Preventive Medicine), Center for the Development of Professional Qualification of Medical Workers, UZBEKISTAN

Email id: d.ermetova@gmail.com \*\*\*\*Assistant, Department of Valeology (Preventive Medicine), Center for the Development of Professional Qualification of Medical Workers, UZBEKISTAN Email id: ulmas.mamadaliyeva61@gmail.com

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ABSTRACT

In today's world, the issue of human health remains the most pressing one that requires close attention from the public and the health care system. The analyses of objective medical and demographic indicators, standardized assessment of the quantity and quality of health of the population, which most fully reflect the full range of socio-economic, genetic, natural and climatic, environmental, public, medical factors - affecting the health of the population are the main subjects of study of modern researchers.

**KEYWORDS:** Health, Quality Of Health, Quantity Of Health, Healthy Way Of Life, Prevention.

### INTRODUCTION

An analysis of the epidemiological patterns of the incidence and mortality of the population, where noncommunicable diseases (NCDs), including heart disease, stroke, cancer, diabetes and chronic lung diseases, together account for almost 70% of all deaths in the world.

Goal: Development of innovative national mechanisms for the prevention of NCDs in the Republic of Uzbekistan.

Objectives: Review of foreign literature to study the spread of NCDs in the world and in Uzbekistan, with an emphasis on identifying external and internal risk factors, followed by the development of effective prevention mechanisms at the national level.

#### **Research Methods**

The study will use historical, statistical, analytical, socio-epidemiological methods.

#### **Results and Discussions**

In the Decree of the President of the Republic of Uzbekistan dated December 18, 2018 No. PP-4063 "On measures to prevent non-communicable diseases, support a healthy lifestyle and increase the level of physical activity of the population", the indicators of morbidity, disability and mortality of the country's population are given. Unfortunately, these indicators not only remain at a high level, but also tend to increase (cardiovascular, oncological diseases, endocrinological and a number of others, i.e. non-communicable diseases, which account for 79% of the total mortality in the country). According to expert estimates, this situation in the country will be a constant cause of further growth in inefficient health care costs, a shortage of doctors and an increase in the consumption of medicines.

Demographic processes are characterized by their own patterns, which must be taken into account. One of the objective indicators for an in-depth analysis of the state of health is the study of life expectancy at birth - 67.2 years (65.0 for men and 69.5 for women) according to the UN [1]; epidemiological features of the spread of morbidity and the level of mortality of the population.

Many researchers in the world are studying more complex types of life expectancy at birth, such as the definition of:

- Qualitatively lived years (QALY - quality-adjusted life-year);

- Potentially lost years of life due to the burden of disease (DALY - disability-Adjusted Life Year) [2].

At the international level, models are used to determine the range of determinants and their impact on health, one of such models is Dahlgren's rainbow, which describes the levels of influence of determinants on a person's health potential (Fig. 1). This figure shows the social model of health, including factors such as age, gender and heredity.



### Figure 1. Dahlgren's rainbow indicating the main determinants of health

An analysis of the mortality of the population showed that its low level is more characteristic of economically developed countries: 6.5 in Japan, 12.0 in Canada and Austria, where they have remained practically unchanged for a number of years. Thus, in the countries of Europe in the last 40 years, the mortality rate has remained at the level of 10.0 - 11.0 with slight fluctuations. More than 60% of all deaths in developed countries and 30% in developing countries are over 70 years of age (48% in China, and 10% in sub-Saharan Africa) [4]. The leading causes of death, according to WHO, are - cardiovascular diseases (29.2%), malignant neoplasms (12.5%), injuries (9.1%), respiratory infections (6.7%), HIV / AIDS (4.9%), complications during childbirth and the postpartum period (4.3% of all deaths) [4].

Global statistics indicate that NCDs are more common among people living in low- and middleincome countries: for example, 75% of all deaths from NCDs and 82% of premature deaths under the age of 70 years - occur in the population of these countries.

Tobacco smoking is the most important cause of CSD (myocardial infarction, cerebral stroke), malignant tumors, chronic obstructive pulmonary disease, acute and chronic stomach ulcers. The main reason for the development of chronic obstructive pulmonary disease in 1/5 of the examined patients was tobacco smoking [6].

Excessive alcohol consumption is the dominant cause of "ultra-high" mortality of the population from external causes, namely transport accidents, accidental alcohol poisoning. Also, excessive alcohol consumption is associated with high mortality from cardiovascular pathology [7] cirrhosis and other liver diseases [8].

A diet rich in animal fats and cholesterol and poor in vegetables, fruits, fish, and other seafood increases the risk of death from CSD, as well as some cancers. As you know, a high concentration of low-density cholesterol in the blood is a leading risk factor for vascular

atherosclerosis and, accordingly, coronary heart disease and brain. Changing the type of diet in the direction of reducing the consumption of animal products led to a significant decrease in mortality [9].

Studies of the impact of endocrine pathology as a cause of death in the population of Tashkent showed that in the structure of death from endocrine diseases, the largest number is diabetes mellitus (98%). The most common complications in DM were OSHF, stroke, AMI. These data are consistent with the results of studies and other authors on the predominance of cardiovascular and cerebrovascular pathology in the mortality of diabetic patients [9, 10].

Prevention is a public health priority in most developed and developing countries. The result is a significant reduction in mortality from CSD, CD, and lung diseases in these countries [12].

One of the directions of this area is the study of modern, standardized methods of the influence of a healthy lifestyle on the health of the population. Timely determination of the quantity and quality of health allows medical personnel to predict adverse health outcomes. Since, with the knowledge and skills of leading a safe life, the amount of health increases and the risk of early disability and death decrease several dozen times.

However, recent studies of a comprehensive level of quantitative and qualitative assessment of the health status of the population have not been conducted or are episodic. Targeted studies aimed at establishing the true level of somatic and social health of the population have not been carried out, and the assessment of the effectiveness of measures for the primary prevention of non-communicable diseases is not objective. The main focus of the healthcare system in developing countries, including Uzbekistan, is the reorientation from preventive medicine to specialized care. Specialized treatment and diagnostic medical care does not have scientific experimental health laboratories that would take into account the risk factors for the occurrence of diseases with the further development of effective methods for their prevention. Today, unfortunately, medical specialists are more focused on prescribing expensive diagnostic and therapeutic procedures.

However, preventive medicine, medicine that protects against diseases and forms a healthy mind and body, is little in demand today. A healthy lifestyle is introduced to the masses through the hard work of people involved in preventive health care. The main scientific research in the world is devoted to the definition of new forms of diagnosis and treatment of the disease. The preventive focus in each profile is no more than 10% of the main volume of work carried out.

To date, the republic does not have an effective system for covering the population with preventive examinations to identify risk factors for non-communicable diseases. All this leads to the fact that, despite the available documentary evidence of ongoing activities, the level of public health is not improving. The population is increasingly seeking medical help in emergency and specialized centers in a aggravated state of health with a predominance of complications of the underlying disease. The existing system of preventive examinations does not have a systematic character, when the quality of medical care requires mass coverage of risk groups with dispensary observation. Medical examination of the population should be massive, which requires the development of a roadmap for the introduction of effective health-saving technologies.

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Modern work on the prevention of NCDs is based on the implementation of three strategies - population-based, high-risk strategy and secondary prevention. The population strategy involves raising public awareness of NCD risk factors and motivating them to lead a healthy lifestyle. This strategy is very effective, but its results can be expected not earlier than in 5-10 years [12].

The high-risk strategy aims to identify people at high risk of NCDs in the population and correct their risk factors. This strategy is implemented mainly through medical examinations and preventive medical examinations of the population [12].

The strategy of secondary prevention proposes to provide quality treatment for people already with proven NCDs, correct their risk factors and increase patients' motivation for treatment [12].

The system of disease prevention in the form of promoting a healthy lifestyle has not shown its effectiveness, as it answers the question "what to do?", and today there is no way to improve the medical culture of the population by carrying out preventive work using old methods without innovative approaches.

The use of an innovative approach in solving the problem of the development of preventive services, the subject of which is Valeology, allows us to answer the most important question "how to do it?".

The analysis and practice of developed foreign countries shows that it is necessary to form a new national healthcare strategy in the republic, with an emphasis on preserving and strengthening the health of the nation, based on the principles of health science and primary disease prevention. According to the US National Institutes of Health, \$1 invested in preventive (health) activities saves \$8 spent on laboratory tests and \$326 spent on treating the disease.

The proposed new (innovative) system should be based on the widespread use of information technologies (digitalization of health care) and include: the widespread introduction of preventive health research at the individual, group and population levels at the preclinical stage.

The organization of the activities of health cabinets (valeo-cabinets) in primary health care institutions allows for examination and assessment of the patient's health level at the individual level (personal health card - health index (body reserves) - development of an individual health program). This program includes scientifically tested questionnaires and has no analogues in Uzbekistan. Conducting prenasological diagnostics will allow the most timely and effective adjustment of the lifestyle that contributes to the preservation, strengthening and regulation of the level of health of the individual.

### At the level

Workers as well as the population. At the same time, the system of influencing the population should be comprehensive and cover different levels: family, preschool, school and higher education, mahalla, media, medical institutions, etc.

Organization of Health Centers (Valeocenters) in the form of private and public-private partnerships. In primary health care, it is necessary to create valeo rooms with trained specialists and special equipment. In clinics and hospitals, it is necessary to create special health-improving and preventive units. In all specialized scientific centers, departments of preventive and health-

improving cardiology, urology, gynecology, etc. should be created at the expense of the internal staff reserve. Depending on the specialty.

Organization of training in the system of higher education (starting from 1-2 courses of medical institutes to introduce the subject "Valeology"), at the stage of postgraduate education - doctors, clinical residents, masters, as well as advanced training for the leadership of the healthcare system.

Formation of educational valeological (health) programs in the Republic and their implementation in various sectors (including the system of preschool and secondary education), taking into account various target groups. To create a unified model for teaching health problems, taking into account the traditions and mentality of our people. The main goal: to change the thinking of doctors, and through them the population towards health, not disease.

Creation and continuous improvement of the legislative and legal framework, economically stimulating society as a whole and each person individually, state and non-state structures to preserve health as the main factor determining the welfare, level of culture and spirituality of the nation. First of all, it is necessary to develop and approve an effective State concept for preserving and strengthening the health of the nation, which should be based on a new innovative national health strategy.

The activities of the structures responsible for the formation of a healthy lifestyle of the population should also be based on the economic interest of a responsible attitude to their health for each and the population as a whole, which is another incentive to introduce the principles of insurance medicine in Uzbekistan.

Thus, in addition to the generally accepted model of nosological diagnostics, a new diagnostic model is being developed for the first time: assessment of the level of health of an individual - prenosological. Such an innovative approach in healthcare will: create a mechanism and then a system for the widespread introduction of primary prevention and the formation of a healthy lifestyle among the population directly related to it, the main scientific and practical subject of which is Preventive Medicine, as well as effectively reduce the incidence of chronic diseases in the population, in features of the spread of non-communicable diseases.

### LIST OF REFERENCES:

- 1. Мировая статистика здравоохранения, 2017 г. Мониторинг показателей здоровья в отношении Целей устойчивого развития (ЦУР).
- **2.** Weinstein M., Torrance G., McGuire A., Вилюм И.А., Плавинский С.Л., Белоусов Д.Ю. QALY: основы. Качественная клиническая практика. 2015;(2):70-78.
- 3. Назиров Ф.Г., Асадов Д.А., Муталова З.Д. Деятельность лечебно-профилактических учреждений в 2002г // Медицинский журнал Узбекистана. - 2003. - №4. - С. 2-8
- 4. The global burden of disease: 2004 update // WHO Library Cataloguing-in-Publication Data, ISBN 978 92 4 156371 0, World Health Organization 2008
- 5. Нечаева О.Б., Актанова Н.В. ВИЧ-инфекция и туберкулез // Здравоохранение РФ. 2003. №2. С. 33-36

- 6. Ge L., Ge J. The Reasons Coronary Heart Disease Mortality Has Increased in China // American Heart Hospital Journal, Volume 5, Issue 2, pages 97–99, Spring 2007, 5 (2), p.97-9, DOI: 10.1111/j.1541-9215.2007.06014.x
- Mannino D., Kiri V. Changing the burden of COPD mortality // International Journal of COPD 2006:1(3), p.219-33
- **8.** Boden R., Alba B., Sacco R. Lifestyle factors and stroke risk: exercise, alcohol, diet, obesity, smoking, drug use, and stress. // Curr Atheroscler Rep. 2000 Mar; 2(2): p.160-6
- 9. Ковалева Е.П., Лысенко А.Я., Никитин Д.П. Урбанизация и проблемы эндокринологии. М. 1982.
- 10. Koskinen S., Reunanen A., Martelin T. et al. Mortality in a large population-based cohort of patients with drug-treated diabetes mellitus // Am J Public Health. 1998 May; 88(5): p.765–770. PMCID: PMC1508922
- **11.** Соломонов А.Д., Дмитриев В.И. Оценка. Прогноз и рекомендации по улучшению здоровья населения Ставропольского края // Здравоохранение РФ. 2007. №5. С. 22-27
- **12.** Бойцов С.А., Оганов Р.Г. от профилактической кардиологии к профилактике неинфекционных заболеваний в России//Российский кардиологический журнал 2013, 4 (102), 2013.