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CHARACTERISTICS OF TEACHING THE EPIDEMIOLOGY OF CHRONIC DISEASES AND DISABILITIES**Abstract**

In modern times, as a result of the fact that the boundaries of prevention have gone beyond the boundaries of infectious pathology, not only infectious, but also non-infectious diseases, thanks to the application of the population approach to the study, "Epidemiology of non-infectious diseases" (ENID) or, with new terminology, "Epidemiology and prevention of chronic diseases and disabilities" (EPCHDD) began to develop rapidly. The Epidemiology and prevention of chronic diseases and disabilities are studied through the method of epidemiological examination of somatic, non-infectious diseases of mass spread. Currently, this direction is developing rapidly, and along with the epidemiology of infectious diseases, the concept of epidemiology of non-infectious diseases (ENID) is widely applied.

The achievements in epidemiology in the fight against infectious diseases have aroused interest in the epidemiological study of widespread non-infectious diseases, and now the epidemiology of non-infectious diseases (NIDE) has developed and gained freedom. The purpose of the National Institute of Health and Welfare is to determine the patterns of development of chronic diseases in the population and to develop ways of controlling them. The main object and ultimate goal of examinations is the person, his health condition, and health protection.

Keywords: *infectious and non-infectious diseases, chronic diseases, disabilities, epidemiology, prevention*

Introduction

The subject of the epidemiology of chronic diseases and disabilities or epidemiology of non-infectious diseases (NCD) is to study the causes and patterns of development of a number of somatic diseases that have an epidemic character and depend on certain biological medical factors and social conditions (Aghayev, 2022:822).

In the 50s of the 20th century, the relationship between smoking and lung cancer was proven (Aghayev, 2020:94). This initiated the expansion of scientific research and the evaluation of a number of factors, which in turn led to greater success in epidemiology (Belyakov, 1989:25).

Epidemiology contributed greatly to the understanding of the causes of rheumatism and rheumatic disease of the heart (Iskakov, 2017: 68). The role of social and economic factors that contribute to the emergence of rheumatism flares with the help of epidemiological methods is disclosed (Brico, 2013:28). This allowed us to dramatically lower the incidence of rheumatism in many countries (Aghayev, 2012:56). It is known that iodine deficiency produces an endemic probe. Epidemiology has also played a positive role in solving the problem of iodine deficiency. Epidemiology has also played a crucial role in discovering the causes of many diseases caused by environmental pollution. Epidemiology has also played an important role in the development of prevention of hypertension (Zueva, 2005:647). As the information listed shows, epidemiology is important in detecting the causes of illness with any pathological condition (Belyakov, 1986:86). Understanding these causes allows us to reduce the scale of the problem to one degree or another through the development of prevention measures (Zueva, 2006:650). At the same time, clarification of these issues opens up new perspectives on the study of the etiology, pathogenesis, and prevention of mass non-infectious diseases (Vtert, 1990:95). Thus, as the boundaries of prevention move beyond the boundaries of infectious pathology, not only due to the use of a populous approach in the study of infectious diseases (Pokrovskiy, 2006:58) but also in the study of on-infectious diseases, the «Epidemiology of non-infectious diseases» began to develop more rapidly (Bigkhol, 1994:98).

Taking this into account, the subject of "Epidemiology and Prevention of Chronic Diseases and Disabilities" has been taught at the Faculty of Public Health of AMU for the last 2 years, during which various issues on the general characteristics of Chronic Diseases and Disabilities, epidemiology, and prevention of their individual nosological forms are studied.

The objective of the subject is to study the basic concepts and methods related to the Epidemiology of Chronic Diseases and Disabilities and teach how to make and take important decisions through the study of population health protection, prevention of transmission, causal relationship of the occurrence of non-infectious diseases, implementation of necessary prevention measures, designation of risk groups and risk factors due to population health indicators analysis, prevention of epidemiological condition deterioration, effective planning of health services activities for the protection of population health. At this time, the subject matter aims and objectives, methods, developmental history; features and general issues of the epidemiology of chronic diseases and disabilities, and application of the Epidemiological Observation (Examination) method. The risk factors of the emergence of Epidemiology of Chronic Diseases and Disabilities (CDD), the risk groups. Socio-economic consequences of Epidemiology of CDD, prevention, and prevention of epidemiology of diseases and disabilities. Theoretical foundations of the epidemiology of chronic diseases and disabilities and the realization of them during specific pathology and more are studied. It also includes the study of individual groups of patients, including oncological, cardiovascular, environmentally conditioned, allergic diseases, metabolism disorders, conditions of traumatism, risk factors, and groups, manifestations of pathological process (disease structure, dynamics, etc.), their treatment, and prevention.

When teaching a subject, students should study:

1. The definition, subject, developmental history, goals and objectives, classification, strategy, and directions of epidemiology of chronic diseases and disabilities
2. Examination methods and types of analysis used in conducting studies using an epidemiological scanning method
3. Complications of the impact of chronic diseases and disabilities on health, manifestations of the pathological process. Health assessment and health indicators, criteria information

4. Similarities and differences between the epidemiology of infectious diseases and epidemiology of non-communicable diseases, developmental legacies of the epidemic, and pathological process

5. General characteristics of the epidemiology of chronic diseases and disabilities

6. Distribution of non-infectious diseases among relevant professions and age groups, characteristics of their change in dynamics, effects of risk factors, etc.

7. Structure of specific non-infectious diseases, manifestations of pathological processes, conditions of emergence

Thanks to their knowledge in the teaching process, they should be able to:

1. To analyze the manifestations of the pathological process in non-infectious diseases and to detect the conditions that determine their presence;

2. Use data from hygienic and epidemiological studies in determining the main directions of combating and preventing non-infectious diseases;

3. Use the results of dynamic tracking on their determinants to combat specific non-infectious diseases and improve prevention measures

4. To use knowledge on the epidemiology of non-infectious diseases in the course of carrying out prevention measures and epidemiological surveillance.

Students must:

– To determine and evaluate the harm done to the organism by the pathological process in case of non-infectious diseases, to conduct an epidemiological examination of the changes taking place, to detect the complex determinants of factors involved in its emergence, to analyze the data of epidemiological population studies, to analyze the data of laboratory and clinical examinations, the data of social and hygienic monitoring and their application during the prevention of these diseases;

– To obtain samples for laboratory examination from various facilities (to obtain methods of taking material from persons suffering from non-infectious patients and from environmental facilities);

– To make decisions about risk groups, risk factors, ways of influencing the body and its spectrum;

– During various pathologies, treatment facilities, directions of therapy, duration of observation on patients, manner of regular observation on persons with or suffering from a non-infectious disease, manner of conducting their laboratory examination and manner of interpreting the results of examinations;

– In the case of non-infectious diseases, how to organize and conduct measures to prevent pollution of environmental facilities, waste disposal, and reduce their harmful effects on the body;

– Conduct epidemiological analysis to assess epidemiological status for various non-infectious diseases;

– Implement an adequate system of preventive and combat measures;

– Organize epidemiological surveillance, and plan the sequence of actions taken and the duration of their implementation.

The course is based on a newly developed program. The program teaches knowledge about the epidemiology of chronic diseases and disabilities in the modern era and presents the activities of treatment-prevention facilities and the functions of sanitary and epidemiological services in the fight against various diseases.

Taking account this, the developed Programme provided knowledge on the epidemiology of non-infectious diseases in the modern era and shared information from the scientific research carried out in recent years on the study of these diseases, their successes, and experience in profiling. Moreover, extensive information has been provided on the epidemiology of widespread oncological diseases, cardiovascular diseases, allergic disorders, and mental injury, as well as genetic diseases, traumatism, ecologically conditioned diseases, genetically conditioned diseases, etc. It describes methods for detecting high-risk groups through epidemiologic studies and methods

for organizing preventive measures and treatment directions. Methods used during these examinations have also been interpreted.

The program consists of a general and specific part. In general, common issues of the epidemiology of non-infectious diseases: concepts, subjects, goals and objectives, methods, methodical principles of research, developmental history, short characterization, theoretical basis, etc., as well as features of the epidemiology of non-communicable diseases among adults and children are disclosed. In particular, the specific group of diseases, including oncological, cardiovascular, allergic, and environmentally conditioned diseases, epidemiology of traumatism, risk groups and factors, and the manifestations of the pathological process, epidemiological control, and prevention measures have been extensively and thoroughly interpreted. The information provided demonstrates the need to study the epidemiology of non-infectious diseases in modern times. The research facility of Epidemiology of Chronic Diseases and Disabilities is diverse and multidisciplinary. Therefore, the prepared program will be useful not only for medical university students and teachers, but also for specialists in various fields of medicine, especially epidemiologists, cardiologists, oncologists, hematologists, allergyologists, and hygienists. The program is designed based on examples taught in the field of epidemiology in the world experience and reflects both theoretical and practical issues.

Thus, during the course of teaching, lectures on the following topics: Epidemiology of non-infectious diseases: concept, subjects, goals and objectives, and methods. **Epidemiology of Chronic Diseases and Disabilities**- Methodical principles of its research, developmental history, short characterization; Comparative study of epidemiology of chronic diseases and disabilities with the epidemiology of infectious diseases; Preventing and combating chronic diseases and disabilities; Epidemiology of chronic diseases and disabilities with theoretical basis and specific pathology; Epidemiology of non-infectious diseases in children; Epidemiology of oncological diseases; Epidemiology of oncological diseases; Epidemiology of cardiovascular diseases; Risk factors of cardiovascular diseases; Epidemiology of ecological diseases; Epidemiology of ecological diseases; Socio-hygienic monitoring during ecologically conditioned diseases; Epidemiology of allergic diseases; Epidemiology of allergic diseases; Epidemiology of genetically conditioned diseases; Epidemiology of monogenic diseases (monofactor); Epidemiology of ecologically conditioned diseases; Epidemiology of traumatism.

In addition, practice lessons are conducted on the following topics: Epidemiology of non-infectious diseases: understanding, and methods, Epidemiology of oncological diseases, Characterization of manifestations of the disease; Risk factors of oncological diseases, Epidemiological surveillance; Preventive measures; Epidemiology of cardiovascular diseases and understanding history, Ischemic disease, Forms, criteria for myocardial infarction; Characterization of manifestations of disease with cardiovascular diseases, Risk factors; Epidemiological surveillance. Preventive measures; Epidemiology of ecologically conditioned diseases - understanding structure, groups of ecologically conditioned diseases. Some ecologically conditioned diseases of natural and technological origin; characterization of manifestations of disease with ecologically-conditioned diseases. Risk groups; Hygienic and epidemiological studies. Preventive measures; Epidemiology of allergic diseases – understanding. Types, types of allergic reactions; Prevalence of allergic diseases. Dynamics (perennial). Structure. Risk factors; Risk factors for the formation of bronchial asthma in children. Allergic rhinitis. Awareness programs and prevention; Epidemiological characterization of genetically conditioned diseases-exposure. Hereditary diseases: classification; Types of hereditary transmission of monogenic diseases. Epidemiology of polygenic or multifactorial diseases; Epidemiology of traumatism - understanding. Dynamics (biennial); Age structure of traumatization; Risk factors, Epidemiological control, Prevention.

Students' knowledge is assessed based on their test assignments during the semester. At the same time, they prepare presentations on given free work topics that are heard, discussed and evaluated throughout the course. It should be noted that despite the fact that the subject is still

taught for 2 years, the high-quality performance of the students proves the necessity of its teaching. This promotes the need to study disease both in country pathology and with worldwide chronic diseases and disabilities. We also believe that this subject should be taught not only in the School of Public Health but also in other faculties.

Conclusion

Thanks to the training, students are able to: determine and evaluate the harm done to the body by the pathological process during chronic diseases and disabilities; to conduct research on the epidemiological examination method of the changes taking place, to detect the complex of factors or determinants involved in its creation, to conduct data analysis of epidemiological population studies; to analyze data from laboratory and clinical examinations, data from social and hygienic monitoring, and their application during the prevention of these diseases; to analyze manifestations of the pathological process in chronic diseases and disabilities, and to detect conditions that determine their presence; to analyze samples for laboratory examination from various facilities knows how to take; is able to develop algorithm for disease prevention and prevention measures by determining rash groups, risk factors, risk area; knows the duration of observation on patients during different pathologies (cardiovascular, ecologically conditioned diseases, etc.), how to carry out regular observation on persons who have had or are suffering from non-infectious disease, and how to interpret the results of examinations; know how to prevent contamination of environmental objects during chronic diseases and disabilities, organize and conduct measures to reduce waste disposal and their harmful effects on the body; assesses the epidemiological status of various epidimiology of chronic diseases and disabilities able to perform annual and biennial epidemiological analysis of sickness; able to calculate biostatistical indicators of diseases, to construct charts and graphs based on epidemiological indicators for diseases.

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