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## ОСОБЛИВОСТІ ІНФОРМАЦІЙНО-АНАЛІТИЧНОГО ЗАБЕЗПЕЧЕННЯ ПРИ ПРОВЕДЕННІ ЕПІДЕМІОЛОГІЧНОГО НАГЛЯДУ У СИСТЕМІ ОХОРОНИ ЗДОРОВ'Я

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## PECULIARITIES OF INFORMATION AND ANALYTICAL SUPPORT IN CONDUCTING EPIDEMIOLOGICAL SURVEILLANCE IN THE PUBLIC HEALTH SYSTEM

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At the present stage of development of the national model of public health it is quite obvious that the current state of information and analytical support of institutions in this area requires a change in approaches to solving problems of increasing information flows – receiving, processing, analyzing and storing information. In turn requires appropriate resources. The integration of our country into the single information space and the comprehensive processes of globalization and digitalization prove that this issue is of particular importance. An integral part of modern changes in the functioning of public health is information and analytical activities, as a basis for making timely and effective management decisions in the field of public health [1-3].

### ОСОБЛИВОСТІ ІНФОРМАЦІЙНО-АНАЛІТИЧНОГО ЗАБЕЗПЕЧЕННЯ ПРИ ПРОВЕДЕННІ ЕПІДЕМІОЛОГІЧНОГО НАГЛЯДУ У СИСТЕМІ ОХОРОНИ ЗДОРОВ'Я

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**Мета дослідження** – визначення особливостей інформаційно-аналітичного забезпечення проведення епідеміологічного нагляду у системі закладів охорони здоров'я.

**Методи:** діалектичний – для визначення сутності інформаційно-аналітичного забезпечення закладів охорони здоров'я; функціональний, порівняльний аналіз – для аналізу діяльності ДУ «Кіровоградський обласний центр контролю та профілактики хвороб МОЗ України»; моделювання, інтегровані підходи – для розробки моделі інформаційно-аналітичного забезпечення діяльності закладів охорони здоров'я та заходів щодо її впровадження у практику; методи статистичного аналізу – для визначення особливостей досліджень об'єктів довкілля та динаміки інфекційних захворювань.

**Результати і обговорення.** Дослідження функціонування закладів охорони здоров'я, зокрема Кіровоградського обласного ЦРЛ МОЗ України, визначило загальні напрямки розвитку та впровадження для покращання здоров'я населення. У процесі удосконалення інформаційно-аналітичного забезпечення діяльності закладів

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The issue of improving the mechanisms of management and decision-making in the field of public health is reflected in the research of M. Bilynska, N. Vasyuk, O. Firsova [4]. Studies of regulatory issues in the field of public health are presented in the works of domestic scientists [5]. Problems related to the development of programs for the formation of a healthy lifestyle in the context of the formation and implementation of public policy to improve public health in Ukraine have been studied in numerous works by leading scientists [6, 7]. It should be noted that most of the works related to the improvement of public health policies and mechanisms indicate the need to create and use information and analytical support of public health institutions on the principles of automation and use of information and communication technologies.

Implementation, adaptation and widespread use of modern information and

communication technologies in the activities of public health institutions provide information and analytical support for timely and effective management decisions at all levels (state, regional, local), as well as accompany the information component of public health policy, including in matters of forming a culture of human health. This provides information needs directly to the Centers for Disease Control and Prevention of the Ministry of Health of Ukraine, public health centers, health care institutions, public administration and local government, and society as a whole, creates the necessary conditions for objective and timely informing about the results of the public health system and the steps they take to address issues of society.

However, the current legislative documents still do not define the basic concept of «information and analytical support of public health institutions», although this func-

tion has recently been increasingly declared the most relevant. It should be noted that at the present stage at the state level the necessary work is not being done to improve the quality of existing and develop new comprehensive information and analytical systems in the field of public health in full. The activities of the vast majority of elements of information and analytical support are aimed only at individual point, fragmented solutions for monitoring the state of the environment or public health, which without dissemination throughout the country, combination and analysis will not allow to obtain comprehensive information on public health and taking measures to improve it. This results in slowing down the implementation of information and analytical support in the field of public health and significantly reduces its effectiveness, leads to untimely and incorrect decisions that threaten development and endanger the health care system. As for the study of problems and development of information and analytical systems in the field of health culture, the national scientific space does not have such a concept. In this regard, the study is to summarize the theoretical, methodological and practical provisions on issues of information and analytical support of public health institutions.

**Objective.** The purpose of this study was to determine the features of information and analytical support in the conduct of epidemiological surveillance in the system of public health institutions.

**Methods.** The research was performed on the basis of the following methods: dialectical – to determine the essence of information and analytical support of public health institutions; functional, comparative analysis – to analyze the activities of the state institution «Kirovograd Re-

*епідеміологічного нагляду у системі охорони здоров'я представлено ключові аспекти його розвитку. Пропонуються більш детальні рішення проблем громадського здоров'я. Сформульовано завдання щодо вдосконалення інформаційно-аналітичного забезпечення діяльності закладів епідеміологічного нагляду у системі охорони здоров'я. Встановлено, що всі ці аспекти, пов'язані з удосконаленням інформаційно-аналітичної функції закладів охорони здоров'я, для повноцінного використання мають бути інтегрованими в єдину автоматизовану систему зі створенням та підтримкою інформаційних баз даних та функціями обміну інформацією, у тому числі й у режимі реального часу. Розроблено структуру моделі інформаційно-аналітичного забезпечення діяльності закладів охорони здоров'я.*

**Висновок.** Основними елементами інформаційно-аналітичної системи закладів епідеміологічного нагляду у системі охорони здоров'я мають бути бази даних необхідної інформації, система показників здоров'я населення, стану довкілля, система обробки даних, система зв'язку, передачі та захисту інформації, система прогнозування змін показників здоров'я населення, база типових управлінських рішень за певних обставин (комбінації показників), оснащена цифровими АРМ користувача.

**Ключові слова:** система охорони здоров'я, інформаційно-аналітичне забезпечення, епідеміологічний нагляд.

gional Center for Disease Control and Prevention of the Ministry of Health of Ukraine»; model, integrated approaches – to develop a model of information and analytical support for the activities of public health institutions and measures for its implementation in practice; methods of statistical analysis – to determine the features of research on environmental objects and the dynamics of infectious diseases.

**Results and discussion.**

A study of the functioning of public health institutions, in particular the Kirovohrad Regional Center for Disease Control and Prevention of the Ministry of Health of Ukraine, identified general areas for development and implementation to improve public health. These include:

- Tsetting public health priorities to ensure their pri-

ority funding;

- Improving the legal framework for the functioning of the public health system;

- introduction of quality control systems for laboratory tests, standard operating procedures;

- development and implementation of training programs in the field of public health, taking into account the best European and international experience;

- attracting additional investment funds from sources not prohibited by law;

- provision of computer equipment and modern information and communication technologies;

- updating of laboratory equipment, sufficient supply of consumables;

- Involvement of young professionals and public organizations in the field of public health.

In the analysis, the main

problems of public health institutions were identified: insufficient funding for health care; organizational and methodological; scientific and practical; personnel and information-analytical problems. Table 1 suggests more detailed ways to address these issues for public health.

In matters of improving the information and analytical support of public health institutions, it is necessary to perform the following tasks:

- development and implementation of information systems for accounting, monitoring of diseases that operate in real time;

- collection of a reasonable amount of data on the state of health of the population and the environment, as well as other factors affecting public health, with the possibility of their effective processing, comparison and

Table 1

**Directions for solving public health problems**

View directly	Characteristic directly
Development of regulatory and legal support	Adoption of regulations on the formation of strategies for the development of public health.
	Updating and republishing existing ones, developing and implementing new normative documents of regulatory and methodological nature of the public health system.
Improving the control function	Providing supervisory functions (control) over compliance with the requirements of biological safety, anti-epidemic and sanitary-epidemiological regime, norms and rules when working with pathogenic microorganisms, pathogens of especially dangerous and dangerous infectious diseases, coordination of activities on detention, accounting, transmission and transfer of biological pathogens institutions, establishments, enterprises of various forms of ownership.
Expanding the coordination function	Coordination and control of biological risk regimes at facilities of various forms of ownership that work with biological pathogens and recombinant DNA molecules.
Improving the quality of work	Establishment of a national provider of proficiency testing, competent in conducting interlaboratory comparisons, which has the ability to obtain expert assessment using certain types of samples for external evaluation of the quality of public health laboratories.
Improving information and analytical support	Creation and implementation of information databases and information exchange systems, including real-time.
	Creating a single system for collecting, processing, storing and transmitting medical and statistical information.
	Implementation and support of work at the regional level of national medical information systems for accounting and analysis of data on infectious diseases and non-communicable diseases.
Justification of the planning function	Science-based planning of public health institutions.
Replenishment of human resources	Restoration and promotion of the specialties «epidemiologist» and «sanitary doctor» in order to replenish human resources for the public health system.

Source: developed by the author.

PECULIARITIES OF INFORMATION AND ANALYTICAL SUPPORT IN CONDUCTING EPIDEMIOLOGICAL SURVEILLANCE IN THE PUBLIC HEALTH SYSTEM

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**Objective:** The purpose of this study was to determine the features of information and analytical support in the conduct of epidemiological surveillance in the system of public health institutions.

**Methods:** The research was performed on the basis of the following methods: dialectical – to determine the essence of information and analytical support of public health institutions; functional, comparative analysis – to analyze the activities of the State Institution «Kirovohrad Regional Center for Disease Control and Prevention of the Ministry of Health of Ukraine»; model, integrated approaches – to develop a model of information and analytical support for the activities of public health institutions and measures for its implementation in practice; methods of statistical analysis – to determine the features of research on environmental objects and the dynamics of infectious diseases.

**Results and discussion:** A study of the functioning of public health institutions, in particular the «Kirovohrad Regional Center for Disease Control and Prevention of the Ministry of Health of Ukraine», identified general areas for development and implementation to improve public health. In the process of improving the information

and analytical support of the activities of epidemiological surveillance institutions in the public health system, its key aspects of development were presented. More detailed solutions to public health problems were suggested. Tasks have been formulated to improve the information and analytical support of the activities of epidemiological surveillance institutions in the public health system. It is established that all these aspects, which are related to improving the information and analytical function of public health institutions, for full use must be integrated into a single automated system with the creation and maintenance of information databases and information exchange functions, including real time. The structure of the model of information and analytical support for the activities of public health institutions has been developed.

**Conclusions:** The main elements of the information-analytical system of epidemiological surveillance institutions in the public health system should be: databases of necessary information, system of indicators of public health, state of the environment, data processing system, communication system, transmission, information protection, system forecasting changes in public health indicators, the base of standard management decisions in certain circumstances (combinations of indicators), equipped with digital user workstations.

**Keywords:** public health system, information and analytical support, epidemiological surveillance.

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analysis;

□ detection and elimination of paper duplication of reporting forms of data of public health institutions, which significantly slows down the process of transfer of relevant information, leads to unreasonable expenditure of human resources and is not used for management decisions;

□ minimizing the use of parallel information collection systems that distort the final data, which does not contribute to effective management decisions.

One of the key aspects of the development of information and analytical support of the regional centers of disease control and prevention of the Ministry of Health of

Ukraine is the STEPS study of risk factors for noncommunicable diseases, which was conducted in Kirovograd region. The STEPS National Representative Study will provide objective information on the prevalence of risk factors for noncommunicable diseases, such as cardiovascular disease, cancer, diabetes, chronic respiratory disease, and mental illness, which are the leading causes of death worldwide. The STEPS survey, which will cover all regions of Ukraine, will sample the study, which will include the adult population of Ukraine (urban and rural) with a total of 7,700 potential participants. Study participants are selected randomly. Participation in the

survey is voluntary for respondents. The information they provide is completely confidential. The map of Kirovograd region has already identified specific addresses of the territory, the residents of which are potential STEPS respondents – the cities of Kropyvnytskyi, Znamyanka, Svitlovodsk, Onufriyivsky, Oleksandrivsky and Novgorodkivsky districts. After all, only ten percent of a person's overall health depends on doctors, all the rest a combination of different factors, namely them as representative national data, will be obtained for comparison with international data. Standardized methods for collecting, evaluating, analyzing and disseminating data in WHO

member countries were studied by the Kirovohrad Regional Center for Public Health and the Kirovohrad Center for Disease Control and Prevention of the Ministry of Health of Ukraine. The statistics currently used by these institutions are extremely disappointing. Non-communicable diseases in Ukraine are the cause of more than 80% of lost years of potential life and about 90% of all deaths with high premature mortality, especially from cardiovascular disease. Another thing is that only now Ukraine is starting the process of collecting and analyzing nationally representative data, which should become the basis for scientifically sound decisions to improve the situation in the field of public health [8, 9].

As can be seen from the above material, the improvement of the activities of public health institutions is associated with increasing the efficiency of their information and analytical functions based on the use of computer technology and software.

Therefore the improvement of analytical and informational components of public health activities, creation and maintenance of information databases and information exchange systems, including in real time, is especially important today. This requires the collection of statistics, the keeping of records or access to registers of infectious diseases, non-communicable diseases, food poisoning, injuries (including domestic violence), and occupational diseases from health facilities of all forms of ownership. In this context, current research on the state of health and behavioral factors of the population in relation to their own health, implemented through convenient scientific and methodological provisions and information and communication technologies, is extremely needed. Thus, it is necessary to integrate data

on environmental factors with indicators of public health, create periodic analyzes and reports, publish these data in various formats for different target audiences. It is also necessary to identify the needs of the population and risk groups on issues related to the health care system, and to monitor progress in achieving health indicators in the region. It is important to monitor the effectiveness of anti-epidemic measures, implementation of disease prevention programs, protection of public health.

All these aspects, which are related to the improvement of the information and analytical function of public health institutions, for full use must be integrated into a single automated system, the object model of which should be presented in more detail.

Today it seems impossible to transparently monitor the consistency and consistency of goals set at all levels of government in the field of health, public health, monitoring their compliance with subsequent decisions to ensure their achievement, as there is insufficient equipment of public health software and hardware and technologies, scientific and methodological provisions for information and analytical support, there is no clearly formed system of indicators / indicators, methods of their calculation for the formation of comprehensive analytical information, methodological and instrumental support for training and management decisions in public health.

It is also necessary to add the lack of a developed statistical and analytical base, the necessary secure telecommunications networks that allow the use of data from separate institutions, a systematized information database with a powerful reference apparatus. In addition, today the use of modern specialized information re-

trieval systems in the field of public health is almost non-existent [10].

Therefore, an effective way to implement information and analytical support in the field of public health of Ukraine is the introduction of an automated set of functional components (modules), which provide submission, reception and automated computer processing of information in electronic form, creation of electronic registers and their interaction, use of analytical processes for comprehensive and operational analysis. The complex of such functional modules must be integrated into a single automated system. The main elements of the information-analytical system of public health institutions should be: databases of necessary information, system of indicators of public health, state of the environment, data processing system, communication system, transmission, information protection, forecasting system of indicators public health, databases of typical management decisions in certain circumstances (combinations of indicators), equipped with digital user workstations. Thus, computer technology, system and specialized software, science-based methods, qualified specialists are the key basis of a set of tools needed to develop and use automated systems of information and analytical support of public health [11].

In this regard, the decision to fully implement the information and analytical function of public health institutions, as well as a tool to ensure the formation of a culture of health of the population of Ukraine, may be a system of information and analytical support of public health institutions, whose architecture can be clearly represented in the form of an object model (Fig. 1).

The proposed model of information and analytical support of public health institutions can be an example of modernization of the system and the introduction of information and analytical component for effective interaction of all chains and participants in the public health system. This model acts as a set of interacting individual subsystems (functional modules), which have their own purpose:

□ the module «monitoring and data collection» allows you to get into the system primary data from various sources (health facilities, diagnostic centers, mobile laboratories, stationary moni-

ring stations, meteorological stations, etc.) on public health and factors, that affect it. In this module the information is checked and distributed according to the necessary classifiers;

□ module «Population Health», which collects indicators and their values for certain blocks (groups) in the dynamics of periods (years, half-years, quarters, etc.), which indicate the state of health of the population of a particular area and its disease. Ideally, data should be collected and presented in the system in real time;

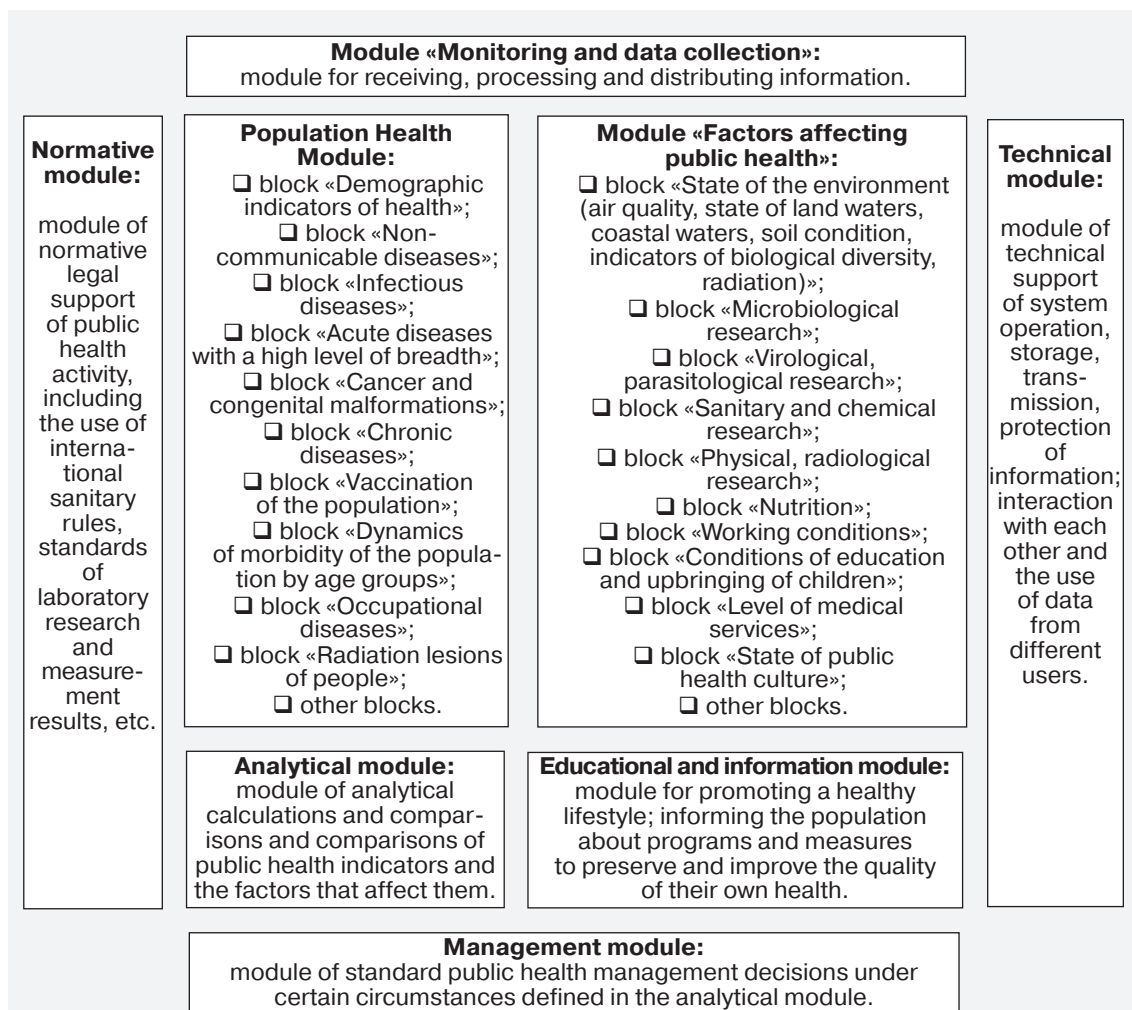
□ module «Factors affecting public health» is used to collect, collect and analyze

data on the most important health factors, such as the state of the environment in places of residence, conditions of education and upbringing, state and safety of food and water supply, level medical care to the population, etc. In particular, it is necessary to monitor such an indicator as the state of the culture of public health, which indicates the effectiveness of the public health system;

□ the analytical module is designed to establish causal relationships between public health and health-determining factors, determine the risk of pathology, epidemics in the presence of social,

Fig. 1

### The structure of the object model of information and analytical support of public health institutions



Source: developed by the author.

medical, biological and other risk factors; forecasting changes in public health when the situation in the environment changes; determining the consequences of environmental pollution and assessing the effectiveness of environmental and public health measures. This module should determine the control levels of morbidity inherent in a particular area, and establish the dependence of their critical exceedance on changes in the environment (in particular, in the case of emergencies or emergencies);

□ educational and information module provides an opportunity to inform the population and teach them the necessary measures to maintain their own health, timely consultation with doctors, provide the population with knowledge, skills and abilities to protect against socially dangerous diseases and risks;

□ the management module provides an analysis of options for the impact of health care and public health institutions on certain situations, determining the best ways to solve problems, developing optimization meas-

ures and decision-making;

□ normative and technical modules are not basic, but accompanying, which allow the automated system of information and analytical support of public health institutions to work correctly.

An example of a set of indicators for filling in the module «Factors affecting public health», namely the block «State of the environment» can be listed in table 2.

In general, the use of such a system of information and analytical support will allow a variety of users:

□ have access online to operational reporting information on the state of health of the population by health care institutions, cities, local communities, regions, etc. (grouped by type of disease);

□ monitor and control the incidence of the population in a particular area;

□ more effective control and implementation of mandatory examinations, vaccinations;

□ obtain data on the factors and causes that caused human disease;

□ to implement educational and informational functions on the development of a healthy lifestyle and the for-

mation of a culture of health; □ have software tools for analytical calculations and comparisons and comparisons of public health indicators, factors that affect them, etc.;

□ make sound management decisions in the field of public health in a timely manner.

To ensure the implementation of the proposed model of information and analytical support of public health institutions, it is necessary to solve a number of organizational, technical and other tasks. Taking into account international experience and research, the first step should be the full expansion and restructuring of the existing infrastructure of information and analytical support of public health and health care facilities, namely automated technical means and structured cable networks, creating a secure local and regional network. and on their basis – systems of interaction with the necessary information resources and a centralized knowledge base [12].

The system of information and analytical support of public health institutions must have certain compo-

Table 2

**List of possible indicators for filling the block «State of the environment» of the system of information and analytical support of public health institutions**

Atmospheric air indicators	Indicators of surface waters	Indicators of sea water	Soil indicators
He drank PM 10 He drank PM 25 Concentration of CO NOx concentration Concentration of NO Concentration NO <sub>2</sub> Concentration of SO <sub>2</sub> Concentration O <sub>3</sub> Concentration of H <sub>2</sub> S Concentration of NH <sub>3</sub> Odorants and sulfur-containing compounds Volatile organic carbohydrates (VOCs) Wind speed Wind direction Temperature Relative humidity Atmospheric pressure	Turbidity Color Nitrates (nitrate) Absorption at L = 254 nm Chemical oxygen demand Biochemical oxygen demand Nitrites Soluble oxygen Potassium Hydrogen index Conductivity Water temperature Suspended substances	Turbidity Electrical conductivity Salinity Density Speed of sound Oxygen concentration Air saturation Water pressure Water temperature	Phosphates Ammonium Nitrate nitrogen Nitrites of free and general collection Sulfates Swallowing iron

Source: developed by the author for [12].

nents and meet the following requirements:

- creation of a single information base of remote objects and subdivisions of public health institutions;

- organization of effective movement of information flows;

- informational and methodological support for the activities of all departments and public health facilities;

- processing and analysis of information obtained from the external environment;

- ensuring the necessary level of security and protection of information resources in the field of public health;

- providing the ability to conduct automated effective analysis of the necessary information in accordance with the created user request [13].

Based on the list of tasks of the state institution «Kirovohrad Regional Center for Disease Control and Prevention of the Ministry of Health of Ukraine», we can focus on the following measures that need to be implemented in the specified period to improve:

Ensuring the implementation of the current monitoring research plan in full.

In case of receiving the results of research that do not meet the requirements of regulations, ensuring timely information of the executive authorities and other interested organizations for appropriate response, including in accordance with the provisions of the Regulations of interaction of territorial bodies of the State Service of Ukraine for Food Safety and Consumer Protection and state institutions of the Ministry of Health of Ukraine.

According to the results of monitoring studies of sanitary-educational and explanatory work among the population.

Ensuring active cooperation with local governments, executive authorities and business entities of all forms

of ownership on the sanitary and epidemiological well-being of the population and conducting laboratory and instrumental measurements and tests, including based on positive findings in monitoring studies.

Each of these measures requires information and analytical support, it will be more effective through the use of the above automated system of information and analytical support. Such systems can solve problems tens and hundreds of times more complex than human capabilities. To make the system most effective, it is necessary to adapt to specific public health conditions, including health care and the implementation of public health culture.

To fully use the results of the previously proposed model of information and analytical support, an important element of the process of its implementation should be the creation of an automated (digital) workplace in the form of a system of methodological, technical, software tools using personal computers of recent generations. The main purpose of the digital analyst workplace is flexible automation of user functions in real time. This approach will allow you to quickly use large arrays of reference, statistical and other information, quickly process documents, generate reports and reference files using data from various institutions, share information with other departments and organizations, use e-mail, conduct analytical research and more.

However, today there is a very weak hardware and software of health care and public health institutions, which mainly use outdated technology and outdated software that performs primitive functions. This in turn leads to a decrease in efficiency and, in some cases, the inability to perform tasks, especially in a short time [14].

It is clear that the effective organization of information and analytical activities in public health institutions is possible only if it has the appropriate legal support. At the same time, the analysis of the domestic legal field shows the existence of a number of legislative and other legal acts aimed at regulating, protecting and developing the domestic information space and analytical activities. At the same time, in Ukraine an important problem remains a certain inconsistency of domestic legal policy in the information sphere, in particular given that legislation is adopted to address tactical issues, without taking into account strategic guidelines and objective Ukrainian conditions [15].

To improve Ukrainian information legislation, it is necessary to approve constructive changes to existing laws, as well as adopt new legislation, including those related to the information component of the health care system and public health, which would correlate with European Union law.

Another important legal problem is the imperfection or lack of proper protection of information in most existing information systems and information transmission networks. However, given the strong IT potential of Ukrainian society, one can count on the potential for the introduction of new technologies in the management of medical and environmental information and adequate administration of public health.

An important condition for the success of the modernization of the Ukrainian health care system, including the public health system, is the fruitful cooperation between government and business and public organizations, which has been confirmed in the market of medical information systems and automated environmental mo-



monitoring systems. On the other hand, the Ministry of Health of Ukraine, as the state regulator of public health, needs to pursue a policy aimed at achieving interoperability (compatibility) of commercial digital products (medical information systems, modules, registers, other software) for public health.

No less attention is paid to the practical training of qualified personnel to use modern technologies of information and analytical support, especially managers of health care and public health, as their professionalism depends on the quality of information and effective decision-making to improve domestic public health. in accordance with world standards. Implementation of the system of information and analytical support of public health institutions and the use of such modules as module «Monitoring and data collection», module «Public Health», module «Factors influencing public health», analytical module, real-time education and information module, management module, regulatory and technical modules should improve the effectiveness of management decision-making at all levels of public health management.

Summarizing the above, it should be noted that such a comprehensive, systematic approach to solving this problem and applying effective mechanisms in the information and analytical activities of public health institutions will provide the necessary opportunities and create additional benefits for effective management and implementation of quality and effective public policy. on the formation of a conscious attitude to a healthy lifestyle and a culture of health as one of the main factors in maintaining a healthy Ukrainian nation.

**Conclusions.** Thus, in the process of improving the in-

formation and analytical support of the activities of epidemiological surveillance institutions in the public health system, its key aspects of development are presented. More detailed solutions to public health problems are suggested. Tasks have been formulated to improve the information and analytical support of the activities of epidemiological surveillance institutions in the public health system. It is established that all these aspects, which are related to improving the information and analytical function of public health institutions, for full use must be integrated into a single automated system with the creation and maintenance of information databases and information exchange functions, including real time.

The structure of the model of information and analytical support for the activities of public health institutions has been developed. The main elements of the information-analytical system of epidemiological surveillance institutions in the public health system should be: databases of necessary information, system of indicators of public health, state of the environment, data processing system, communication system, transmission, information protection, system forecasting changes in public health indicators, the base of standard management decisions in certain circumstances (combinations of indicators), equipped with digital user workstations. The proposed model of information and analytical support of public health institutions can be an example of modernization of the system and the introduction of information and analytical component for effective interaction of all chains and participants in the public health system.

Measures to improve and implement information and analytical support for the ac-

tivities of public health institutions are proposed. It is proposed to expand and restructure the existing infrastructure of information and analytical support for the activities of public health and health care institutions. Technical and organizational requirements for the system of information and analytical support are given. Emphasis is placed on measures that need to be implemented in the specified period to improve the activities of the State Institution «Kirovohrad Regional Center for Disease Control and Prevention of the Ministry of Health of Ukraine», based on the list of its tasks. It is established that each of these measures requires information and analytical support, which should be implemented through the use of an automated system. The directions of normative-legal, hardware-software, personnel and other types of ensuring the activity of the developed model of analytical-information system are offered. It is established that a comprehensive, systematic approach and application of modern mechanisms and methods in information and analytical activities of public health institutions will provide the necessary opportunities and create additional benefits for effective management in this area, including in forming a conscious attitude to healthy eating, living and maintaining a culture of health as one of the main factors in maintaining a healthy Ukrainian nation.

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