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ARCHITECTURAL AND URBAN PLANNING NETWORK OF

CHILDREN'S HEALTH INSTITUTIONS

АРХІТЕКТУРНЕ І МІСТОБУДІВНЕ ПРОЕКТУВАННЯ МЕРЕЖІ

ДИТЯЧИХ ЗАКЛАДІВ ОХОРОНИ ЗДОРОВ'Я

АРХИТЕКТУРНОЕ И ГРАДОСТРОИТЕЛЬНОЕ

ПРОЕКТИРОВАНИЕ СЕТИ ДЕТСКИХ УЧРЕЖДЕНИЙ

ЗДРАВООХРАНЕНИЯ

Summary. The article deals with the priority tasks of reforming the health care system in the architectural and urban aspect; features of the design of the architectural and urban network of children's health facilities in Ukraine; the importance of the interconnection of medical institutions intended for the prevention, diagnosis, treatment and rehabilitation of the children's population.

Key words: *architecture, medical institutions, health care centres, architectural environment of medical projects, trends, medical area.*

Анотація. *У статті розглядаються пріоритетні завдання реформування системи охорони здоров'я в архітектурно-містобудівному аспекті; особливості проектування архітектурно-містобудівної мережі дитячих медичних закладів в Україні; важливість взаємозв'язку медичних закладів, призначених для профілактики, діагностики, лікування та реабілітації дитячого населення.*

Ключові слова: *архітектура, медичні установи, медичні центри, архітектурне середовище медичних закладів, тенденції, медична сфера.*

Аннотация. *В статье рассматриваются приоритетные задачи реформирования системы здравоохранения в архитектурно-градостроительном аспекте; особенности проектирования архитектурно-градостроительной сети детских медицинских учреждений в Украине; важность взаимосвязи медицинских учреждений, предназначенных для профилактики, диагностики, лечения и реабилитации детского населения.*

Ключевые слова: *архитектура, медицинские учреждения, центры здравоохранения, архитектурная среда медицинских зданий, тенденции, медицинская сфера.*

The National Strategy for the Development of the Health Care System in Ukraine provides for: reducing the number of hospitals and beds that duplicate the functions of providing secondary medical care in a certain territory (departmental, city and regional hospitals), bringing their numbers to real population needs; 100% coverage of medical care by the entire population of Ukraine; creation of optimal organizational therapeutic and preventive, sanitary-hygienic, teaching and methodical and material and technical conditions for

functioning of children's health care institutions; improvement of the system of pediatric therapeutic and prophylactic complexes such as "prophylaxis-diagnosis-treatment-rehabilitation-recovery", the opening of medical institutions of various types and forms of ownership, the formation of complex children's therapeutic complexes for the purpose of comprehensive modern provision of children with modern medical care.

These basic medical provisions of the development of the system of children's health care substantially change the approaches to the organization of the system of children's health facilities, making it possible to combine the medical care of all age groups with the primary link of medical care to family doctors, reducing the number of ineffective out-of-date hospitals by integrating them into multifunctional multi-profile hospitals, the creation of specialized children's medical complexes with advanced state-of-the-art equipment at the regional level in dependent From specific socio-economic, demographic and urban conditions.

Definition of the concept of "child", as well as the concept of "adult age", varies depending on the cultural characteristics of each individual country. The Convention on the Rights of the Child defines the child as a human being under the age of eighteen. But the priority in this area remains under national law. The Family Code of Ukraine states that "the legal status of a child has a person before reaching the age of majority", and accordingly "a minor is considered a child aged fourteen to eighteen years", "a child is considered a child until he reaches fourteen years". In accordance with international and Ukrainian legislation, a child from birth has inalienable rights guaranteed to him by the state: the right to life, the right to liberty and personal integrity, the right to respect for private and family life, the right to health care, etc [1-2].

It is traditionally believed that a person remains a child up to 13-16 years old, but depending on the context, other terms are also used, such as a "minor", "an individual under the age of fourteen". In the Ukrainian language, there is

such a gradation of the names of the child depending on her age: baby, baby, boy / girl, teenager, young man, girlfriend / girl. A child can receive full-scale medical care in health care facilities regardless of the level of subordination, types and form of ownership through individuals and legal entities with appropriate higher medical education.

According to the state building codes of Ukraine "Buildings and structures, health facilities" DBN V.2.2-10: 2017 (Appendix A, List of types of buildings and facilities of health facilities) to children's health facilities may include the following functioning medical ' act:

1. Therapeutic and prophylactic institutions (in DBN B.2.2-10: 2017 not allocated to a separate group, but physically represented as specialized child-care facilities).

- Hospitals: multidisciplinary hospitals (country, oblast, city, central city, central rayon, rayon, district); specialized hospitals (infectious, psychiatric, cardiological, endocrinological, etc.).
- Dispensaries: with a hospital; without a hospital.
- Outpatient clinics (PHC facilities, consultative clinics, outpatient clinics, diagnostic centers, health centers).

2. Institutions for the protection of motherhood and childhood (perinatal centers, maternity hospitals, children's hospitals, children's clinics).

3. Sanatorium and resort establishments (preventive health centers, sanatoriums, health camps) (in DBN V.2.2-10: 2017 not allocated to a separate group, but physically represented as specialized child-care facilities).

4. Establishments forensic examination (bureau) (in DBN V.2.2-10: 2017 not allocated to a separate group, but physically represented as specialized child-care facilities).

Consequently, as it is evident from the list below, not all existing childcare facilities are reflected in state design and construction norms, which, of course, require a special approach in designing and placing in the structure of

the urban environment. It should be noted in paragraph.3.38 of the DBN V.2.2-10: 2017 which states: "Maternity and child care facilities – a group of medical and preventive institutions, which include children's stadiators and outpatient clinics, maternity hospitals, obstetric hospitals and women's hospitals consultations". Also, in the updated version of the DBN does not reflect the perspective types and forms of organization of children's therapeutic complexes for various social and urban conditions.

The network of medical care of the population is considered as a complex hierarchical structure, which includes territorially, functionally and organizationally interconnected and mutually subordinated health care facilities. Taking into account the existing experience of our country and the public health systems in other countries, in the long run the network of medical and preventive establishments will be represented by a system of ambulatory-polyclinic and in-patient facilities aimed at providing urgent and planned medical care to the population. The solution to this problem is complicated by the insufficient resource supply of the industry and the low efficiency of the use of available resources by the health services.

New socio-economic conditions are due to the improvement of medical technologies, the need to improve the quality of healthcare provision by health care facilities, the development of primary hospital care, the emergence of treatment and prevention institutions of different forms of ownership and increase in the volume of reconstruction. The preliminary analysis showed that the existing network of medical and preventive institutions of large cities is inefficient, its objects are unevenly located in the city, lacking specialization, poor material and technical base and are not staffed with the necessary medical personnel. Planning, management, organization and financing of the health care system are carried out according to the administrative-economic distribution, which does not allow to provide equal medical care in each administrative district, due to the fact that they are different in size, population and density of

the population. The uneven development of the material and technical base of health care facilities and the lack of promising schemes for the placement of medical and preventive institutions adversely affect the state and development of the network as a whole. In order to serve the population of large cities, the study showed that the nomenclature is not enough, which is becoming an obstacle to the effective provision of medical care in various urban contexts. As calculations have shown, in conditions of city it is impossible to achieve consolidation of objects of health care to the necessary capacity without increasing the radii of reach to them. This contradiction can be solved in each case by choosing from a certain set of optimal options for placement of treatment and prevention facilities with the help of mathematical and computer modeling [3–5].

New trends in the development of architectural and planning structures, aimed at obtaining more flexible and individual planning decisions, require the use of smaller elements (units, cells) as the final objects of typing. When organizing the network of treatment and prevention institutions, the analysis of the morbidity of the population living in the city is very important. The increase or decrease of certain types of morbidity affects the volume of medical care, which will change the structure and specialization of health care institutions.

To solve a specific problem of constructing an optimal network of medical and preventive institutions in the context of a specific system of resettlement it is necessary to have: a promising population; distances from places of residence to places of possible location of objects; standards of population provision by inpatient and ambulatory-polyclinic care. As a result of the analysis of medical, organizational and urban factors, the principles of placement of treatment and prevention facilities are proposed, taking into account the peculiarities of the planning organization of the territory of large cities. Outpatient and polyclinic care is provided at the level of the microdistrict, residential and planning areas. The analysis of research results showed that it is expedient to organize in-patient care at the level of the planning region. The

calculations of the optimal network allowed to streamline the zones of influence and structure of health facilities in the city [6–11].

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