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THE SYSTEM OF MEDICAL REHABILITATION OF THE DISABLED PEOPLE: EXPERIENCE OF THE LEADING EU AND NATO COUNTRIES

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Ключові слова: *система медичної реабілітації, особи з інвалідністю, країни ЄС, країни НАТО, війна, миротворчі операції*

Abstract. The system of medical rehabilitation of the disabled people: experience of the leading EU and NATO countries. Ozerniuk H.V., Balan O.S., Prokopenko O., Stasiuk Yu.M., Krupskyi O.P. *Timeliness, purposefulness, patient centeredness, consistency, and continuity are the general principles of rehabilitation and the defining tasks of developed countries, especially in the context of ensuring the realization of the rights and opportunities of people with disabilities. The purpose of the study was to identify the features of medical rehabilitation systems for persons with disabilities in the leading EU and NATO countries that have experience in rehabilitating combatants and to substantiate proposals for improving the current system of medical rehabilitation in Ukraine. The study is based on the analysis of the conceptual principles of building rehabilitation systems in eight countries with developed democratic institutions, experience of military operations and belonging to classical models of social protection: Canada, France, Germany, Italy, Poland, Spain, the United Kingdom, the United States. The methods of comparative analysis, structural analysis, objectivity and consistency were used. The main results of the study are the identification of weaknesses of the Ukrainian medical rehabilitation system, such as fragmentation of service provision, lack of unified management coordination, insufficient information and uneven location of institutions. The advantages of foreign systems are analyzed: targeting medical rehabilitation, use of outsourcing, involvement of the community and volunteers, creation of competition between medical institutions, emphasis on mental rehabilitation, and use of sanatorium and resort facilities. It is proposed to create a single state body for coordinating medical services, develop a national roadmap for rehabilitation measures, encourage volunteers and expand the range of rehabilitation professions. The experience of the leading EU and NATO countries demonstrates the need for a systemic restructuring of medical rehabilitation in Ukraine through the introduction of modern approaches and methods aimed at improving the quality and accessibility of services. Successful implementation of foreign experience will create an effective national system capable of meeting the current challenges and needs of people with disabilities.*

Реферат. Система медичної реабілітації осіб з інвалідністю: досвід провідних країн ЄС та НАТО. Озернюк Г.В., Балан О.С., Прокопенко О., Стасюк Ю.М., Крупський О.П. *Своєчасність, цілеспрямованість, пацієнтоцентричність, послідовність, безперервність є загальними принципами реабілітації та визначальними завданнями розвинутих країн світу, особливо в контексті забезпечення реалізації прав і можливостей осіб з інвалідністю. Метою роботи було виявлення особливостей систем медичної реабілітації осіб з інвалідністю в провідних країнах ЄС та НАТО, які мають досвід реабілітації учасників військових дій, та обґрунтування*

пропозицій щодо вдосконалення сучасної системи медичної реабілітації в Україні. Дослідження базується на аналізі концептуальних принципів побудови реабілітаційних систем у восьми країнах із розвиненими демократичними інститутами, досвідом військових дій та належністю до класичних моделей соціального захисту: Великобританії, Іспанії, Італії, Канаді, Німеччині, Польщі, Франції та США. Використано методи порівняльного аналізу, структурного аналізу, об'єктивності та послідовності. Основними результатами дослідження є визначення слабких місць української системи медичної реабілітації, таких як фрагментарність надання послуг, відсутність єдиної управлінської координації, недостатнє інформування та нерівномірність розташування установ. Проаналізовано переваги закордонних систем: адресність медичної реабілітації, використання аутсорсингу, залучення громади та волонтерів, створення конкуренції між медичними установами, акцент на психічній реабілітації та використання санаторно-курортних закладів. Запропоновано створення єдиного державного органу координації медичних послуг, розробку національної «дорожньої карти» реабілітаційних заходів, заохочення волонтерів та розширення спектра реабілітаційних професій. Досвід провідних країн ЄС та НАТО демонструє необхідність системної перебудови медичної реабілітації в Україні шляхом впровадження сучасних підходів та методів, спрямованих на підвищення якості й доступності послуг. Успішна імплементація зарубіжного досвіду дозволить створити ефективну національну систему, здатну відповідати сучасним викликам і потребам осіб з інвалідністю.

Today, in Ukraine, in wartime, conceptual approaches to building a system of social protection and public health are being reassessed and rethought. The fragmentary nature of state reforms, the need to develop legislation in accordance with modern challenges, the lack of an effective rehabilitation system for combatants, among other things pose state-level tasks regarding the restructuring of the system of medical rehabilitation of persons with disabilities, including on the basis of the implementation of foreign experience. An unconditional priority in this context are foreign countries that have had experience in participating in military operations and peacekeeping operations.

Modern comparative studies of world systems of rehabilitation of persons with disabilities in the field of social medicine and public administration are based on different approaches to the formation of research bases and methodology for their conduct. Five European countries with different healthcare systems and national traditions that provide rehabilitation services at different levels of the healthcare system were chosen by A. Garg, D. Skemps, J. Bickenbach as a research base [1]. K. Barth, A. Vladis, K. Blake, B. Bhandarkar, K. O'Sullivan conducted a study of fourteen countries affected by conflicts and, based on an analysis of demographic and clinical characteristics of people visiting physical rehabilitation centers, drew conclusions about the need to understand the factors that affect the accessibility and acceptability of rehabilitation for women and girls in conflict situations [2]. Kianush Abdi compares the rehabilitation system of nine countries in different geographical regions. Studying foreign experience in the mechanism of providing medical rehabilitation services in foreign countries, he notes the expidiency of carrying out a national reform in Iran in the provision of medical rehabilitation services for people with disabilities [3]. D. Smarzhevska, V. Wereda, J. Jonczyk conduct a general comparative study of the health care systems of Poland and OEEC countries and come to the conclusion that the Polish system occupies one of the last places in the classification carried out using the Helwig linear ordering method, which indicates the expediency of introducing changes in the health care system and management decisions of the countries where the health care systems were recognized as the best [4]. K. Cuervo, using the example of Colombia, emphasizes the importance of occupational therapy for countries suffering from armed conflicts [5]. I. Berlinets, based on the experience of foreign countries, indicates the need to carry out reforms of the rehabilitation system in Ukraine and create rehabilitation departments in all hospitals [6]. O. Kondratenko notes the importance of medical and rehabilitation services for war veterans as an element of post-war social protection, and the focus of the policies of ten foreign countries on the social protection of war veterans [7].

Together, these studies emphasize the need to define our own approach and mechanism for studying foreign experience in medical rehabilitation of persons with disabilities in foreign countries whose citizens participated in military operations and/or peacekeeping operations.

The purpose of the study is to identify the features of the medical rehabilitation systems of persons with disabilities of the leading EU and NATO countries that have experience in the rehabilitation of participants of military operations and to substantiate proposals for improving the modern system of medical rehabilitation of persons with disabilities in Ukraine.

MATERIALS AND METHODS OF RESEARCH

The consolidation of Ukraine's aspiration to join the EU and NATO at the constitutional level [8-13] influenced the choice of the research base – eight countries were selected that have: an index of full-fledged – established democracy according to the 2023 democracy rating [14]; membership in the EU

and/or NATO; experience of participation in military operations and/or peacekeeping operations, cover two well-known classical models of social protection of the population – liberal (Anglo-Saxon) and continental-European [15, 16], they are: Great Britain, Spain, Italy, Canada, Germany, Poland, France and the USA. The medical rehabilitation systems of Norway, Sweden and Finland as countries representing the Scandinavian model of social protection of the population, members of the EU and NATO were not included in the database of this study due to the lack of extensive experience of participation in peacekeeping operations and military operations in recent decades.

Based on the method of comparative analysis, the article examined the main conceptual principles of building medical rehabilitation systems for persons with disabilities as a result of war (civilians and military personnel) in Great Britain, Spain, Italy, Canada, Germany, Poland, France and the USA. The analysis took into account the features of legislative regulation, organizational structure, financing and accessibility of rehabilitation services in these countries. The positive and negative aspects of their functioning were highlighted, which allowed us to identify key elements for adaptation in Ukraine.

Using the methods of structural analysis, objectivity and consistency, the following were analyzed: the shortcomings of the Ukrainian system of medical rehabilitation of persons with disabilities at the beginning of the ATO, including the lack of a unified coordination system and insufficient integration of international standards; the dynamics of improving the system over the past decade, in particular the creation of new rehabilitation centers, the implementation of educational programs for training rehabilitation specialists and the use of modern technologies in the rehabilitation process; main aspects of foreign experience that can be effectively integrated into the Ukrainian rehabilitation system.

The materials of the study were national, foreign and international documents regulating the provision of rehabilitation services; scientific sources (monographs, articles and reviews) devoted to rehabilitation systems in different countries; official statistical data on the dynamics of disability, the number of rehabilitation institutions and the population's satisfaction with medical services.

RESULTS AND DISCUSSION

Improvement of the medical rehabilitation system has attracted the attention of the international community for more than one decade (as of the end of 2023, 1.3 billion people (16% of the population of our planet) have disabilities [17]) [18, 19]. This is evidenced by the approval of a number of international legal standards [20, 21, 22], their implementation in the legislation of foreign countries [23, 24, 25], despite the existence of different healthcare systems in them.

Over the past decade, Ukrainian legislation has undergone many changes in the field of improving the provision of medical rehabilitation services and bringing the existing system into line with international regulatory legal acts and requirements for joining the EU. In 2020, the Law of Ukraine “On Rehabilitation in the Field of Healthcare” was adopted, which defined the main terms and principles of rehabilitation, established requirements for specialists and introduced individual rehabilitation plans for patients. A multidisciplinary approach to rehabilitation was introduced, in particular through the creation of teams of doctors, physical therapists, occupational therapists, psychologists and other specialists. In 2021, Resolution of the Cabinet of Ministers of Ukraine No. 1268 outlined the tasks, content and requirements for the organization of rehabilitation assistance to persons with functional limitations and disabilities. In 2022, the Cabinet of Ministers approved the State Standard Rehabilitation Plan, which defined a list of assistance measures, including the provision of medical devices and auxilary devices for persons with functional limitations. In 2024, a number of important changes were made. The form of the individual rehabilitation plan was improved, the age-related characteristics of children's rehabilitation were taken into account, and financing of rehabilitation services through the Medical Guarantees Program was introduced. The International Classification of Functioning was introduced, which focuses on the functional state of the patient. Legislative acts, in particular amendments to the Law "On Social Services", are aimed at preventing difficult life circumstances and providing assistance to persons and families in difficult living conditions. At the end of 2024, the Order of the Ministry of Health of Ukraine No. 2067 regulated the procedure for assessing the daily functioning of individuals, which became an important step in ensuring a modern approach to rehabilitation. However, even now, the system of providing rehabilitation services requires reform in light of the increase in the number of people with disabilities in the country, changes in the structure of disability itself as a result of military actions, the existence, as a consequence, of “hidden disability”, etc. (Table 1.).

Analysis of the data in Table 1 suggests that in 2014-2015 there was a significant decrease in the total number of persons with disabilities (from 2,831.7 thousand to 2,568.5 thousand), after 2015 the number generally stabilized, showing only minor fluctuations between 2,614.1 thousand in 2016 and

2,725.8 thousand in 2022. This stability after 2015 may be due to the adaptation of the system to new conditions or changes in demographic data.

The number of servicemen who first received the status of persons with disabilities had peak values in 2016 (8,195 people), which coincides with the initial stages of the war in eastern Ukraine. Participants of hostilities who first received the status of persons with disabilities also demonstrate a similar trend, increasing to 5,259 people in 2019. The dynamics of the increase in the number of people with disabilities among military personnel and combatants in these years can be explained by the intensity of hostilities and the scale of the conflict.

Table 1

Dynamics of the number of people with disabilities in Ukraine[1][26-38]

Cause of disabilities	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Dynamics of the total number of people with disabilities in Ukraine (thousands of people)	2831,7	2568,5	2614,1	2603,3	2635.6	2659,7	2703	2724,1	2725,8	2721,7
Number of persons with first established disabilities in Ukraine	133745	138247	136302	135674	138756	136300	117664	121049	145243	-
Number of persons with first established disabilities in Ukraine among servicemen	4356	6031	8195	6145	7256	7315	5740	-	5816	-
Persons with first established disabilities among combatants in Ukraine	2126	2310	3216	4340	5006	5259	3996	3885	-	-

It should be emphasized that under martial law in Ukraine, there are restrictions on the dissemination of certain information, in particular, the Ministry of Health of Ukraine refrains from providing data on the number of military personnel with disabilities and the dynamics of the increase in the number of people with disabilities as a result of the war. According to published statistics, the quantitative indicators of people with disabilities as a result of the war were as follows: in 2021 – 109,202, in 2022 – 107,084, as of January 1, 2023 – 103,491 people. At the same time, at the beginning of 2023, the first disability group – 5,155, the second group – 59,087, the third group – 39,249 [34].

The developed approaches, experience in implementing modern methods and technologies in the field of medical rehabilitation of leading EU and NATO countries can be adapted for use in Ukraine. However, for successful implementation, it is necessary to conduct a detailed analysis of the compliance of these methods with national legislation, taking into account the current system of medical rehabilitation and its key shortcomings, in particular the lack of a single management body and the imperfection of coordination of interdepartmental efforts.

In this context, the experience of medical rehabilitation of EU and NATO countries, whose citizens participated in war and peacekeeping operations over the past decades, deserves special attention, these countries are: Great Britain, Spain, Italy, Canada, Germany, Poland, France and the USA.

Great Britain. The health care system is represented by the state health care system and the social support system. Elements of rehabilitation are implemented in the activities of all hospitals (statutorily). There are specialized and comprehensive rehabilitation centers, rehabilitation of people with disabilities at home. A large share of the provision of medical and social rehabilitation services belongs to the non-state sector, control over the expenditure of funds for rehabilitation measures is carried out by the state. Clinical audit is widespread. The disadvantages of the system are the location of a larger number of rehabilitation network institutions around the capital,

[1]Note: Data for 2022-2023 is not being distributed due to restrictions on distribution during military operations.

the number of rehabilitation institutions is recognized as insufficient [39, p. 2041].

The National Defense and Rehabilitation Center is a key element of the multi-level program of medical rehabilitation of servicemen, providing concentrated inpatient rehabilitation for complex disorders and injuries of the musculoskeletal system, including complex injuries, rehabilitation after neurological injury or disease. It also provides education and training in military rehabilitation, and is home to the Academic Rehabilitation Research Centre. The National Defence and Rehabilitation Centre is supported by charities such as Help for Heroes and the Royal British Legion [40].

A particular emphasis in the UK and beyond is on mental rehabilitation. There are four main areas of focus for the mental health of service members: mental health during mobilisation, veterans, in points of deployment, and in the context of deployment of troops [41, 42].

Spain. In Spain, rehabilitation is legally defined as a separate branch of medicine, and there is a special emphasis on it, as is medical education. Medical rehabilitation is part of primary outpatient medical care, which is provided by a network of facilities. Rehabilitation services are under-provided [43]. Rehabilitation care is usually provided by a specialized the hospital on outpatient and inpatient basis. Interestingly, some primary care centers provide continuity of care through physiotherapists, either as full-time primary care physiotherapists or as an out-patient service provided by hospital rehabilitation specialists [44]. The law requires the Spanish health system to provide a variety of services to guarantee medical care for people with disabilities [45]. The Spanish national health system is mainly financed by general taxation. Public financing of health care is provided by general taxes and is managed by the regions.[46]

The Social Institute of the Armed Forces (ISFAS) regulates the medical and social benefits for its members. In 2016, the Office of Assistance to Persons with Disabilities in the Armed Forces was created as an organ-catalyst for policies aimed at the protection of persons with disabilities in the Ministry of Defence.[47]

Italy. In Italy, access to medical rehabilitation services for persons with disabilities is guaranteed by law and is free of charge. Medical rehabilitation services are provided at all levels of the national health system, are based on an interdisciplinary assessment of the person's needs, linked to socialisation in the community and must be provided taking into account the territorial location of the latter. There are state rehabilitation centres and rehabilitation centres linked to the community. Rehabilitation activities can be carried out as: hospitalization, general or day (day hospital); specialized outpatient/day service regimen in physical medicine and rehabilitation clinics; home, outpatient, day patient clinic or inpatient territorial care provision.

The medical rehabilitation system envisages "residential" and "non-residential" rehabilitation facilities that can provide intensive or extensive rehabilitation treatment, short-term or long-term. Access to social and rehabilitation treatment should be preceded by a multidimensional assessment of the patient's needs for rehabilitation and medical care, which is performed by a local doctor using an assessment system adopted at the regional level and permission from the medical company at the place of residence [48].

The Italian Military Medical Service is a comprehensive health care organization that guarantees high-quality medical care for military personnel on duty, both in Italy and abroad, and assesses the psychophysical fitness of personnel on active duty and citizens who intend to join the Armed Forces abroad [49].

Canada. A positive experience in Canada is that patients receive rehabilitation services even in the absence of private funds. The government provides financial support to patients who meet certain criteria for disability due to injuries. A wide range of services are available for rehabilitation (physical therapy, occupational therapy, social work, speech therapy, nutrition, traumatic brain injury, physiatry). A significant drawback of the Canadian medical rehabilitation system is the limited access to specialized rehabilitation centers in rural areas [50].

Rehabilitation services are usually interdisciplinary in nature. The rehabilitation process helps patients return to society after illness or injury. [51] There is a program for mental rehabilitation of military personnel, which also includes psychological rehabilitation. Rehabilitation programs are in operation [52]. The number of war veterans with disabilities in Canada reaches 240,000 people. The participation of Canadian military personnel in hostilities led to the formation of a separate medical trauma service [53].

Germany. In Germany, the emphasis is on outpatient treatment. The system of institutions providing rehabilitation services includes: rehabilitation clinics, rehabilitation centers; rehabilitation departments, departments of large hospitals, day clinics, day dispensaries and hospitals for patients and persons with disabilities who do not require continuous daily supervision, sanatorium and resort care facilities. Rehabilitation centers occupy large areas and are located near large cities or on the periphery [54]. Quality control is carried out by questionnaires. The management and financing of social assistance and social care in Germany is based on a triangular model

between the beneficiary, the state and the service provider. In Germany, there are two different types of financing systems: reserved markets and personal budgets [55, p. 2].

Special PTSD centers and "trust lines" have been established for military personnel, and specialized medical centers have been introduced [56].

Poland. There are three main types of medical rehabilitation: vocational rehabilitation, therapeutic rehabilitation, social rehabilitation. All of them have different sources of funding. Medical rehabilitation is financed from the National Health Fund, the Social Insurance Institution and the Social Insurance Fund. There is also the possibility of financing medical rehabilitation from "European funds", which are available, for example, to local governments [57].

There are several levels of the healthcare system that provide rehabilitation services. Currently, inpatient rehabilitation care can be distinguished (tertiary level, which can be provided in a rehabilitation hospital or general hospital in rehabilitation units), outpatient rehabilitation care (secondary level, which can be provided in rehabilitation day centers or outpatient centers) and at home [58]. There are also rehabilitation groups and special teams for rehabilitation at home. On the periphery – "Community-based rehabilitation". In Poland, there is training in rehabilitation at the level of higher education institutions. In Poland, a network of institutions has been introduced that are exclusively engaged in the provision of medical services to military personnel, including rehabilitation services.

France. Medical rehabilitation is financed by mandatory social contributions to the state, sometimes rehabilitation services are paid for at the patient's own expense. Rehabilitation services are provided on the basis of hospitals, by special rehabilitation departments. There are also rehabilitation centers. The main disadvantage is considered to be excessive monopolization by the state administration, shifting the management of rehabilitation services for people with disabilities to the regional level, mostly providing rehabilitation services by medical institutions, not rehabilitation centers, the absence of inpatient and resort treatment. Despite many years of experience in France, there is no emphasis on medical rehabilitation [59, 60].

In France, the Military Medical Service (SSA) has been introduced, the tasks of which include providing education, assistance to specialized military hospitals in the country and abroad, conducting research, unified logistics, monitoring the health of military personnel, assessing the consequences of injuries and PTSD, etc. [61].

USA. As of 2022, the number of people killed in peacekeeping operations was 7,075, the number of people injured was 53,333 [62, p. 3-5]. The number of veterans with a disabled status is about 2.5 million people [63]. The rehabilitation system in the United States is built on the principles of the Medicare system, private insurance, financing from government programs, and charity. Rehabilitation services are provided by government and private institutions. Training of rehabilitation specialists has been taking place since 1947. Rehabilitation is carried out by hospitals in special departments, in inpatient rehabilitation centers, outpatient medical institutions, day clinics, consultative and diagnostic centers, day rehabilitation hospitals, geriatric rehabilitation centers, and private comprehensive rehabilitation centers. There are no sanatorium and resort facilities. There are specialized centers for military personnel (Walter Reed Army Medical Center). Strict quality control, licensing, and accreditation have been introduced. Medical rehabilitation is carried out within the framework of special government programs. There is a high level of competition among rehabilitation facilities, which has a positive impact on their quality.

The United States has a five-level system of medical care for combat injuries. Each level of medical care provides progressively more advanced care than the next. Level 5 treatment takes place in one of the main military centers in the United States, where the final "reconstruction and rehabilitation" is carried out. [53] The US army has programs to control mental stress for servicemen, veterans' centers to maintain mental health according to approved protocols.

Despite the introduction of holistic medical rehabilitation systems in foreign countries, the provision of rehabilitation services in middle- and low-income countries is at a low level – 50% of needs remain unmet, and medical rehabilitation services are inaccessible. Today, many of those who need them cannot access them due to the inability, at least in part, to effectively plan rehabilitation services. There are cases among countries around the world that do not recognize rehabilitation services as an important component of health services [64, 65, 66, 67].

The main indicators of health care system resources, including demographic, economic and medical data of the studied countries, are given in Table 2. Such a comparison contributes to achieving the goal of the study – identifying areas for improving the national medical rehabilitation system in Ukraine based on the successful experience of the EU and NATO countries.

Analyzing the comparative indicators of healthcare system resources in Ukraine, the EU and NATO countries for 2021, significant differences can be

noted in the level of provision of medical services, healthcare expenditures and demographic characteristics. The largest percentage of GDP to healthcare is allocated by the USA (16.57%). which is explained by its predominantly private health insurance system. while Germany (12.65%) and France (12.31%) also demonstrate a high level of financing. At the same time, Ukraine spends only 8.01% of GDP, which is one of the lowest indicators among the countries considered, along with Poland (6.68%).

Table 2

Comparative indicators of healthcare system resources in the EU, NATO and Ukraine (2021)

Model of social protection of the population	Liberal (Anglo-Saxon)			Continental European					
Country	Great Britain	USA	Canada	Spain	Italy	Germany	Poland	France	Ukraine
Population (millions) [68]	67,208	336,997	38,155	47,486	59,240	83,408	38,307	64,531	43,531
GDP (million euros) [69]	3,187,3	22,997,5	1,990,8	1,426,2	2,101,3	4,225,9	674,1	2,935,5	198,3
Healthcare expenditures as a percentage of GDP (%) [70]	11.34	16.57	11.15	10.74	9.0	12.65	6.68	12.31	8.01
Number of beds per 1000 people [71-75]	2.42	2.37	2.58	3.12	3.11	7.74	6.1	5.904	5.61
Number of doctors per 1000 people [76]	3.2	3.6	2.5	4.5	4.2	4.5	3.4	3.3	3
Nurses per 1000 people [77. 78]	9.7	12	10.3	6.3	6.2	12	5.7	8.7	4.42
Number of persons with disabilities aged from 16 and over (%) [78-80; 29]	24	13.5	27	28.8	22.2	24.5	23.8	22.7	6.25

Regarding medical infrastructure, Germany is the leader in the number of hospital beds per 1.000 people (7.74). which significantly exceeds the indicators of the UK (2.42) and the USA (2.37), which are focused on outpatient care. Ukraine has 5.61 beds per 1.000 people, which is slightly lower than Poland (6.1), but higher than the average among Western countries. The number of doctors is also an important indicator: Spain and Germany have the highest availability of doctors (4.5 per 1.000 people), which contrasts with Canada (2.5) and Ukraine (3.0). The number of nurses, a critical factor in ensuring quality patient care, is highest in the United States and Germany (12 per 1.000 people), while Ukraine (4.42) and Poland (5.7) show a shortage of paramedical personnel.

Special attention should be paid to the number of people with disabilities, which may indicate the level of accessibility of medical services and their quality. In Canada, this figure reaches 27%, in the USA – 13.5%, while in Ukraine it is only 6.25%, which may indicate both the imperfection of the system of registration of persons with disabilities and bureaucratic barriers to access to medical and social services. In general, analyzing the healthcare system in Ukraine in comparison with the EU and NATO countries, we can conclude that it requires significant reforms aimed at increasing funding, improving staffing and creating a more effective system of rehabilitation and social protection of persons with disabilities.

In Ukraine, scientific views on measures to improve the rehabilitation system for people with disabilities at the beginning of sustaining ATO (2014-2015) are reduced to identifying a number of shortcomings in the domestic healthcare system and proposing a number of recommendations in connection with the need to continue fulfilling international obligations in the context of the UN Convention on the Rights of Persons with Disabilities [81] and introducing the International Classification of Functioning and Health Limitations [82].

Thus, the shortcomings of the medical rehabilitation system in Ukraine included: the lack of unified policy principles for providing quality services for people with disabilities due to the operation of various centers [83]; the lack of a specialty medical rehabilitation' in higher medical educational institutions; lack of a single management body for medical rehabilitation [6]; ineffectiveness of the public administration system; poor information about medical rehabilitation services; dispersion of the

functions of the medical rehabilitation system between different sectoral institutions [84, p. 170]; lack of direct focus of services on the client [85, p. 72-73]; inadequate provision of persons with disabilities with auxilary devices, lack of a systematic plan for rehabilitation services [86], dispersion of rehabilitation coordination among several ministries. extensive network of rehabilitation institutions of private and state ownership with different jurisdictions [87, p. 151], crisis state of the public education management system aimed at educating secondary medical personnel [88], etc. Additional shortcomings of the modern medical rehabilitation system are: provision of services to persons with disabilities not at their place of residence; limited access to rehabilitation services in rural areas; imperfect system of rehabilitation needs assessment, which does not take into account individual needs of patients; insufficient interdepartmental coordination in the field of health care; low remuneration of specialists; uneven location of institutions; slow process of formation of the Centralized Data Bank on Medical Rehabilitation; shortage of qualified workers. in particular rehabilitation specialists; insufficient number of places in rehabilitation institutions; lack of modern multidisciplinary rehabilitation centers. The important challenges are the integration of international rehabilitation standards, the development of innovative approaches to rehabilitation services and strengthening cooperation with volunteer and public organizations, etc.

The above indicates a low level of efficiency of the then system of medical rehabilitation of persons with disabilities. It was believed that the rehabilitation system at that time needed significant restructuring [89, p. 69], especially taking into account the increase in the number of persons with disabilities as a result of the war and ATO. Therefore, the very model of organizational mechanisms of the medical rehabilitation system in Ukraine was subject to reform by introducing a new model or transforming the old one, which was based mainly on sanatorium treatment and did not cover all levels of medical rehabilitation[90, 91, p. 42] in accordance with the requirements of international standards. Therefore, the situation was further complicated by the fact that during the first waves of Russian aggression and annexation, the main emphasis was on the southern regions of the country, including the Autonomous Republic of Crimea, which contained a significant part of the sanatoriums and rehabilitation facilities that ceased to function or were completely destroyed.

Despite numerous social challenges, negative changes in the structure of disability of the population of Ukraine (Table 1) and financial difficulties in recent years, thanks to the development of national concepts for development and the implementation of international standards, certain positive changes have occurred in improving the national system of medical rehabilitation, and some of the above shortcomings have been overcome. Thus, a number of regulatory legal acts and concepts have been developed: Concept of the State Target Program for Physical, Medical, Psychological Rehabilitation and Social and Professional Readaptation, Law of Ukraine "On Rehabilitation of Persons with Disabilities in Ukraine", State Target Program for Medical, Physical Rehabilitation and Psychosocial Readaptation, the emphasis has been placed on regulating medical services for the rehabilitation of military personnel, cooperation on the provision of medical services for the treatment and rehabilitation of military personnel abroad has been established, medical and social expert commissions (MSEC) in Ukraine have been liquidated. Since January 1. 2025, their functions has been transferred to newly created expert teams in cluster and supracluster hospitals, which conduct assessments of a person’s daily functioning; educational programs in the specialties of “therapy and rehabilitation”, electronic health systems (EHS) were implemented, medical rehabilitation services now are provided at all levels of medical care, the system of institutions providing rehabilitation services sectorial and territorial principle was expanded at a (today in Ukraine, rehabilitation services under a contract for medical care for the population are provided by 381 municipal and 38 private institutions [92]), the number of beds was increased, personal plans for individual patients in medical rehabilitation were developed, a comprehensive approach was launched using multidisciplinary teams, etc.

As of the summer of 2023, satisfaction rates with the medical rehabilitation services provided in state and private rehabilitation medical institutions are 88% and 93%, respectively [93].

Despite the changes in the system of medical rehabilitation of persons with disabilities in recent years, taking into account the experience of foreign countries, which, although not with such intensity, have still encountered similar problems of medical rehabilitation that are relevant for today's Ukraine, it is worth noting that priority measures for improving the system of providing medical rehabilitation services may include: creating a single state authority to coordinate the activities of ministries and departments involved in managing the provision of medical rehabilitation services; focusing on improving rehabilitation services for persons before the onset of disability in order to reduce the number of cases of the latter; finalization of the information system and "road map" for medical rehabilitation; encoura-

gement of volunteers and public organizations; application of support from society and family at home; creation of specialized medical centers for the military; creation of special hospices and houses for joint residence of military personnel; creation of medical centers based on sanatorium-resort institutions; expansion of the spectrum of rehabilitation professions; strengthening of monitoring of the effectiveness and quality of rehabilitation services received; differentiation of the amount of state aid depending on the path of obtaining the status of a person with a disability; introduction of norms for lifelong full financing of medical rehabilitation of military personnel; shifting the coordination of medical rehabilitation services to the regional level; development of telemedicine, etc.

CONCLUSIONS

1. The main directions of development of social policy of the studied foreign countries are: orientation on targeted medical rehabilitation and wide use of outsourcing of medical and social services.
2. Medical rehabilitation services are included in health insurance services, private or state, and are fully or partially reimbursed.
3. The main trends are to focus on providing rehabilitation services closer to the place of residence, involving the community and volunteers, providing information about rehabilitation services, creating competition between medical institutions, involving sanatorium and resort facilities, and implementing WHO and EU requirements into national legislation.
4. Additional research is warranted in the medical rehabilitation systems of foreign countries that have experienced direct military operations in recent decades.

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