UDC 614.2:331.101.262(477)(4-6)
DOI https://doi.org/10.32782/2077-6594/2025.3/07

Shkrobanets I.D.[1], Makhniuk V.M.[1], Petrychenko O.O.[2], Ivanko O.M.[3], Palamar B.I.[4]

Development of professional standards for public health specialists: Ukrainian context and European experience

[1] State Institution «O.M. Marzeyev Institute for Public Health of the National academy of medical science of Ukraine», Kyiv, Ukraine
[2]National Academy of Medical Sciences of Ukraine, Kyiv, Ukraine
[3]Research Institute of military medicine problems, Ukrainian military medical academy, Kyiv, Ukraine
[4]Bogomolets National Medical University Kyiv, Ukraine

Шкробанець І.Д.[1], Махнюк В.М.[1], Петриченко О.О.[2], Іванько О.М.[3], Паламар Б.І.[4]

Розроблення професійних стандартів для професіоналів/ фахівців із громадського здоров'я: українські реалії та європейський досвід

[1]Державна установа «Інститут громадського здоров'я ім. О.М. Марзєєва Національної академії медичних наук України», м. Київ, Україна
[2]Національна академія медичних наук України, м. Київ, Україна
[3]Науково-дослідний інститут проблем військової медицини Української військово-медичної академії, м. Київ, Україна
[4]Національний медичний університет імені О.О. Богомольця, м. Київ, Україна

valentyna2567@gmail.com

Introduction

Public health serves as a strategic foundation of state policy, encompassing a range of measures for disease prevention, preservation, and strengthening of the population's health, as well as ensuring sanitary and epidemiological safety. One of the key directions for strengthening the healthcare system in Ukraine is the development of the human resource potential of specialists in the field of public health. In the current context of global challenges – pandemics, armed conflicts, increasing antimicrobial resistance, and climate change – the effectiveness of the public health system and ensuring patient safety acquire particular importance. This is extremely relevant for Ukraine under martial law conditions, where the burden on medical infrastructure is increasing, risks to the health of patients and medical workers are significantly rising, and challenges in forming a professional medical environment are intensifying [1; 2].

The World Health Organization (WHO) identifies patient safety as one of the priority areas for the development of the global healthcare system and emphasizes the integration of this component into the training of public health specialists. According to international and European standards, the development of human resources in this field should be based on a competency-based approach that combines preventive strategies, effective infection control, epidemiological surveillance, and emergency preparedness [3].

Considering these requirements, Ukraine faces an urgent need to develop and implement a modern professional standard for public health specialists. This will help enhance sanitary and epidemiological safety, strengthen the protection of population health, and ensure the resilience of the national healthcare system to crisis challenges.

The purpose of this study is to analyze and justify the need for the development of professional standards for public health specialists in Ukraine, taking into account European experience, to enhance the quality of workforce training, strengthen sanitary and epidemiological safety, and ensure effective emergency response in the context of Ukraine's integration into the European Union.

Object, materials and research methods

The objects of the study are:

− the current state of professional standards for public health specialists in Ukraine, particularly for those with higher non-medical education;

− the regulatory and legal framework governing the qualification, education, and certification of public health professionals in Ukraine;

− international and European competency frameworks (e.g., WHO, EQF, Directive 2005/36/EC) for public health workforce development;

− competency models for Public Health Emergency Preparedness (PHEP) and their applicability to national standards;

− best practices and scientific approaches to integrating safety culture, emergency preparedness, and public health competencies into professional standards.

The materials of the research included: ukrainian legislation and regulatory documents on public health and professional standards development; european Union directives and frameworks, particularly Directive 2005/36/EC and the European Qualifications Framework (EQF); WHO strategic documents and competency frameworks relevant to public health workforce development; national educational standards for public health specialties approved by the Ministry of Education and Science of Ukraine; scientific literature and analytical reports on public health professionalization and workforce capacity in Ukraine and Europe; official guidelines and operational manuals from the Ukrainian Public Health Center and related institutions. These diverse sources formed a solid evidence base for the systemic, comparative, and legal-logical analysis conducted in the study, enabling a thorough assessment of the current state and future prospects for developing professional standards for public health specialists in Ukraine within the framework of European integration.

The study applied methods of systemic, comparative, and legal-logical analysis of the regulatory and legal framework in the field of public health in Ukraine, the World Health Organization (WHO), and the European Union (EU).

Research results

In Ukraine, professional standards for specialists with higher non-medical education in the field of public health have not yet been developed or approved, which complicates the formation of unified approaches to the professional qualification of such specialists.

Based on the analysis of domestic and international scientific literature, the following findings have been established.

The study by Yavorovskyi O.P., Sergeta I.V., Brukhna R.P., and others (2024) analyzed the level of safety culture in healthcare institutions as a key indicator of the quality of medical services and patient safety. The authors developed an algorithm for the analytical assessment of safety culture, which includes four stages: defining indicators across three components (hazardous staff actions, teamwork and managerial support, hazardous production factors), calculating integral indices, interpreting results, and developing preventive strategies [4].

Given the need to develop professional standards in healthcare, the results of this study are important for incorporating competencies related to safety culture into the structure of such standards. In particular, it is advisable to integrate into the professional standard for public health specialists requirements regarding: proficiency in risk analysis and assessment, adherence to safe workplace behavior standards, teamwork in the context of patient safety, and the ability to develop and implement preventive measures. Thus, fostering a high level of safety culture should be embedded in the competency framework of professional standards as a key element in ensuring the quality and safety of medical services.

In the study by Regan M.M., Yavorovskyi O.P., Brukhna R.P., and others (2023), an analysis of patient safety (PS) culture in healthcare institutions in Ukraine was conducted using the AHRQ (Agency for Healthcare Research and Quality, USA) questionnaire.

The authors examined perceptions of patient safety depending on experience, position (physician/nurse), and work profile (therapeutic/surgical). The study revealed that nurses rate patient safety lower than physicians; surgeons more frequently encounter adverse events; and employees with over 21 years of experience report errors less often than their younger colleagues. The most suitable candidates for training in patient safety were identified as surgical physicians with up to 5 years of experience, who demonstrate a critical attitude towards safety and are willing to report incidents transparently [5].

Considering professional standards, the results of this study emphasize the need to: include competencies in risk management and safety culture in professional standards; focus on ethical responsibility, error analysis skills, teamwork, and transparency; develop behavioral models based on a "just culture" rather than punishment.

These findings are important for the development of the competency framework of the professional standard for public health specialists and the integration of patient safety principles into the system of continuous professional development.

The article by Cai Y., Wang J., Ding P. (2025) presents a competency model for entry-level public health specialists aimed at enhancing emergency preparedness within the healthcare system. The main aspects of the study included the development and validation of a comprehensive competency model. A survey of 1,310 employees was conducted, followed by factor analysis and expert evaluation of the results. Seven key competency blocks were identified: professional-technical skills; medical professionalism; specialized knowledge; cognitive and managerial abilities; public health competencies; emergency response; and physical and psycho-emotional resilience [6].

This model exemplifies a structured approach to forming professional qualifications in accordance with the principles of the European Qualifications Framework (EQF). The model can be used for developing professional standards in Ukraine, particularly for defining knowledge, skills, and abilities (K/S/A) competencies for public health specialists. The high validity of the model ensures its suitability for integration into training programs, assessment, and continuous professional development (CPD).

Thus, the article offers a scientifically grounded example of a competency profile that can serve as a guideline in the development of national professional standards for public health specialists, especially in the context of emergency preparedness.

The article by Hites et al. (2007) presents a competency development model for emergency preparedness, implemented at the South Central Public Health Center in the USA to expand the standard competency set for professionals involved in emergency response. The study included an assessment of local emergency response needs, utilization of expert-developed training courses to analyze and improve the national competency set, and the development of additional competencies reflecting local context specifics such as bioterrorism, natural disasters, and pandemics. This new competency model complemented existing national health standards. The article highlights the importance of adapting professional standards to local healthcare challenges [7].

This approach can be applied in Ukraine when developing professional standards for public health specialists, particularly regarding emergency preparedness. The newly identified competencies can be integrated into K/S/A models of professional standards and CPD programs. The study emphasizes the necessity for flexibility and regular updating of professional standards to meet evolving local and national public health needs, especially amid increasing risks in the public health sector.

The article by Hung et al. (2024) presents a global review of competencies and training programs in the field of Health Emergency and Disaster Risk Management (Health EDRM). The aim of the study was to identify and systematize key competencies and educational approaches in emergency and disaster response within healthcare, addressing the current lack of unified international standards. The methodology included a literature review of English and Japanese publications from 1990 to 2020, as well as a cross-sectional survey of experts from the international Health EDRM network (n = 65).

The study identified 21 competency models and 20 training programs, mostly from the United States. The main competency domains were emergency response, critical thinking, ethics, communication, management, leadership, and decision-making, with a particular emphasis on leadership skills and crisis management for senior personnel [8].

The research highlights the necessity of incorporating specialized Health EDRM competencies into professional standards for healthcare workers. The content of these competencies aligns with the K/S/A model, enabling systematic definition of requirements for specialists.

Therefore, the study's results can be integrated into professional standards for medical managers, public health specialists, epidemiologists, and other professionals, considering the needs of CPD. The article provides a foundation for developing national professional standards for emergency response in healthcare, adapted to international models, including those of WHO and the European Union.

In the study by MacKay et al. (2023), a review of scientific and "grey" literature was conducted regarding the development and implementation of competency frameworks in public health, with a focus on education and professional development for both students and practitioners. The main findings include that an effective public health system depends on a qualified interdisciplinary workforce whose competencies are defined through competency frameworks encompassing K/S/A necessary for public health practice. Competency frameworks are used for curriculum development, performance assessment, identifying needs for CPD, and workforce planning. They serve as the foundation for developing professional standards in public health.

Among the identified challenges is the lack of discipline-specific standards, which is a relevant issue for countries updating their healthcare systems according to international norms (e.g., Directive 2005/36/EC and Association of schools of public health in the European Region (ASPHER) recommendations). Best practices include competency-based education as well as managing the process of framework development and involving professional communities [9].

Thus, the development and implementation of competency frameworks as a basis for national professional standards is a key factor in building a modern, sustainable, and adaptive public health system. This ensures that specialist training meets the demands of the real sector and global challenges.

The study by Moore, Errett, and Patel (2025) presents an updated competency model for Public Health Emergency Preparedness (PHEP) specialists focused on readiness and response in the healthcare sector. The model identifies seven key competency domains K/S/A, including leadership and management (crisis team management); attitudes and motivation (personal values, ethical resilience); collaboration (working in interdisciplinary teams); communication (including crisis communication); data collection and analysis (for decision-making in emergencies); preparedness and response (operational actions, planning, training); and public health fundamentals (systems thinking, prevention), with a cross-cutting emphasis on equity and social justice.

This model is recommended for use in updating professional standards, developing curricula, qualification requirements, and CPD in accordance with the European Qualifications Framework (EQF) principles. It supports building a resilient workforce in Health EDRM at both national and international levels [10].

In the study by Lee J.M., Jansen R., Sanderson K.E., Guerra F., Keller-Olaman S., Murti M., O'Sullivan T.L., Law M.P., Schwartz B., Bourns L.E., Khan Y. (2023), a review of contemporary literature on PHEP was conducted, focusing particularly on infectious threats such as the COVID-19 pandemic. The review confirmed the importance of the 11 elements of the existing PHEP

Resilience Framework (all-hazards) and identified 10 new themes, including planning that addresses inequities in access, vaccination infrastructure, laboratory systems, infection prevention, environmental factors, and legislative frameworks. These findings are significant for shaping professional standards in healthcare by refining the key competencies required for specialists working in emergency response. Specifically, the integration of competencies related to risk management, epidemiology, communication, community engagement, and environmental sustainability into professional standards aligns with the EQF and CPD principles [11].

Additionally, the study by Khan Y., Brown A.D., Gagliardi A.R., O'Sullivan T., Lacarte S., Henry B., Schwartz B. (2019) developed a validated set of 67 PHEP indicators. Using a modified Delphi method involving 33 Canadian experts, the authors identified key performance criteria for local and regional public health authorities. These indicators cover critical and practical aspects of risk management, making them useful tools for assessing preparedness levels, developing professional standards, and improving educational and managerial approaches in public health, including at the international level [12].

These studies collectively emphasize the need for comprehensive, evidence-based competency frameworks and indicators to guide the development of professional standards and training programs in public health emergency preparedness, ensuring readiness for infectious disease threats and other emergencies.

In the study by Wei W., Liu Y., Zhou N., Tian M., Xie L., Watson R., Dai F., Chen Y., Hu W. (2023), a three-level index system for healthcare emergency preparedness was developed and validated using a modified Delphi method. After two rounds, the expert panel reached consensus on five first-level indicators: collaboration in prevention and control; development of response capabilities; material and technical support; financial readiness; and support for physical and mental health. This index system can serve as a foundation for developing professional standards for PHEP specialists [13].

Discussion of the research results

The national system for regulating professional training of healthcare personnel, including public health specialists with higher non-medical education, is currently in the stage of formation and institutionalization.

The Law of Ukraine «On the Public Health System» (Article 50) stipulates the participation of the Ministry of Health of Ukraine in the development of professional standards for the relevant categories of workers.

Modern legislative updates to the qualification system in the country are carried out in accordance with labor market needs and harmonization with European standards. Relevant provisions are contained in the Laws of Ukraine «On amendments to certain legislative acts of Ukraine regarding the improvement of the National qualifications system according to current labor market needs» dated April 15, 2025, No. 4353-IX, and «On amendments to certain legislative acts of Ukraine regarding the functioning of the National qualifications system» dated April 1, 2022, No. 2179-IX.

These legal acts introduced changes to the Labor Code of Ukraine (LCU), including article 41, where for the first time the term «professional qualification (full professional qualification)» was introduced. It is defined as a standardized set of competencies and/or learning outcomes acquired by a person and confirmed by an authorized entity in accordance with current legislation, enabling the performance of labor functions defined by a professional standard.

Article 4² of the LCU provides a definition of a professional standard as the regulatory approved requirements for employee competencies, which form the basis for establishing professional qualifications. These provisions serve as key legal guidelines for updating the professional training model for healthcare specialists, including public health professionals.

According to article 96 of the LCU, professional standards are also an element of the wage tariff system, which envisages differentiation of salaries based on the complexity of performed work and the qualification level of employees. In the absence of approved professional standards, as a temporary regulatory guideline, the qualification characteristics listed in the Directory of qualification characteristics of employee professions (Issue 78 «Healthcare»), approved by the Order of the Ministry of Health of Ukraine dated March 29, 2002, No. 117 (as amended by the Order of the Ministry of Health of Ukraine dated February 24, 2025, No. 307), and agreed with the Ministry of labor and social policy of Ukraine, are used.

The currently valid qualification characteristics of professions, as set out in the Directory of qualification characteristics of employee professions (2002), do not meet the modern requirements and challenges in the healthcare sector. In this regard, the Ministry of Health of Ukraine is gradually transitioning from outdated qualification descriptions to full-fledged professional standards focused on performance, competence, and alignment with the needs of the healthcare system and the requirements of the European Union.

According to the Cabinet of Ministers of Ukraine's resolution dated January 17, 2025, No. 34-r, which approved the healthcare system development strategy until 2030 (hereinafter – the Strategy), one of its key tasks is the formation of a unified medical space with standardized approaches to human resource policy, specialist training, and the provision of medical services – regardless of ownership form or territorial location.

In this context, the development of professional standards for public health specialists is considered an integral part of building the sector's human resource capacity. Special attention within the implementation of Operational Goal 6 of the Strategy is given to strengthening the capacity of the public health system to

respond to emergencies and global threats. In particular, emphasis is placed on:

− the need to develop human resources, including specialists in laboratory work, biosafety, quality, sequencing, as well as professionals involved in responding to emergencies of radiological, chemical, biological, and nuclear nature;

− institutional strengthening of disease control and prevention centers, which involves appropriate staffing and material-technical support aligned with operational needs;

− reviewing the readiness principles of healthcare institutions, including workforce capacity, structural flexibility, and the ability to repurpose during crisis situations;

− integrating public health and primary healthcare approaches according to the "One Health" principle.

These provisions of the Strategy lay the foundation for developing next-generation professional standards that not only formalize competency requirements for specialists but also promote the harmonization of educational programs, postgraduate training, and regulation of practical activities in line with national and international public health challenges. Table 1 illustrates the connection between the Strategy's goals and the components of the developing professional standard.

In the context of implementing the healthcare system development strategy for the period up to 2030, approved by the Cabinet of Ministers of Ukraine on January 17, 2025, No. 34-r, professional standards are regarded as a key mechanism for strengthening the sector's human resource capacity. According to the Monitoring and evaluation Table of the Operational Plan implementation results (indicator No. 16), the annual development of up to 35 professional standards is planned, totaling 210 standards for the period from 2025 to 2030.

Within Operational Goal 1 of the Operational Plan, aimed at ensuring continuous human capital development, as well as within Strategic Goal 3 "Development of the national healthcare system," a number of tasks directly related to the formation of professional standards have been identified, including:

− the introduction of a system of professional self-governance and strengthening the role of professional associations in policy and standards development (item 68);

− integration of digital competencies into professional standards, training programs, and qualification requirements (item 71).

These tasks are specified in the activities of the Operational Plan for 2025–2027, which include:

− involving representatives of professional associations in the development of professional standards and sectoral clinical protocols (responsible: Ministry of Health);

− implementing a conceptual reference framework of digital competencies into relevant qualifications and standards (responsible: Ministry of Health, National health service of Ukraine).

The planned performance indicators for these activities include: the involvement of professionals from the professional community in the Ministry of Health working groups; the inclusion in professional standards of requirements regarding digital literacy, cyber hygiene, and information security. The alignment of strategic goals and components of the professional standard is provided in Table 2.

Modern professional standards in healthcare function not only as instruments of managerial standardization but also embody an innovative competency-based approach. This approach aims to harmonize with the EQF, strengthen the national healthcare system's capacity to address crises (such as epidemics, armed conflict, and global threats), and ensure continuous professional development, including digital skills enhancement.

Ultimately, the development and implementation of professional standards are prerequisites for creating a flexible, modern, and resilient workforce training system for public health that meets both national priorities and European integration requirements.

According to the Cabinet of Ministers of Ukraine Resolution No. 373 dated May 31, 2017, "On approval of the procedure for developing, implementing, and revising professional standards" (as amended), a unified and standardized procedure for creating professional standards has been established in Ukraine. In particular, the document regulates the stages of decision-making on development, project preparation, public discussion, coordination with trade unions, expert review, and approval. Initiators of professional standard development may include both state bodies and interested

Table 1

Link between the Goals of the healthcare system development strategy and the components of the professional standard

Operational Goal of the Strategy	Corresponding components of the professional standard
Unified medical space; unification of approaches	– Description of the profession, roles, and functions; principles of intersectoral interaction
Laboratory readiness; biosafety	– Competencies in laboratory work, biosafety, biosecurity
Development of disease control and prevention centers	– Skills in epidemiological surveillance, monitoring, and threat response
Integration with civil protection	– Emergency management, risk communication, coordination with other services
Human resource capacity building	– K/S/A competencies, EQF qualification levels, assessment, CPD
Preparation and response to global threats	– Crisis readiness, epidemiological intelligence, digital literacy

Source: table developed by the authors.

Table 2

Alignment of the Strategic Goals and components of the developing professional standard with the requirements of the healthcare system development strategy

Strategic/Operational Goal of the Strategy	Corresponding Task/Activity	Component of the Professional Standard
Operational Goal 1: Continuous development of human capital	Introduction of professional self-governance (item 68)	Managerial and ethical competence; participation in the professional community
Strategic Goal 3: Development of the healthcare system	Involvement of professional associations in developing standards	Competence in standards development, knowledge of legislation
Operational Goal 1: Continuous development of human capital	Integration of digital competencies (item 71)	Digital literacy, proficiency in information systems
Strategic Goal 3: Development of the healthcare system	Requirements for cyber hygiene and security	Information security, patient data protection
Monitoring (indicator No. 16)	Annual development of professional standards (up to 35 per year)	Unification of qualification and competency requirements

Source: table developed by the authors.

non-governmental entities such as employers, scientific institutions, professional associations, sectoral councils, public organizations, and others.

To unify approaches to the development of professional standards, the National qualifications agency approved Methodological recommendations on the development of professional standards (Decision No. 1, Protocol No. 3 (103) dated January 25, 2023), which detail the content of the stages and quality criteria for draft documents. Thus, Ukraine is implementing a transparent, evidence-based, and inclusive model for forming professional qualifications that complies with international standards and principles of good governance in the labor sector.

Meanwhile, European Union countries adopt competency frameworks as benchmarks for professional training, assessment, and workforce development in healthcare. Notably, the ASPHER developed the document "European Public Health Core Competencies," which serves as a methodological basis for shaping educational programs, professional development, and human resource policies in public health.

European legislation regulating professional healthcare training aims to achieve two interconnected goals:

− ensuring the free movement of professionals among EU member states (within the internal market);

− guaranteeing a high level of patient safety through establishing minimum quality standards for professional training and systematic qualification control.

Directive 2005/36/EC of the European Parliament and of the Council dated September 7, 2005, «On the Recognition of Professional Qualifications» (hereinafter referred to as the Directive) regulates harmonized approaches to the training, accreditation, and mutual recognition of qualifications among member states. Certain provisions of the Directive grant member states the right to verify the language competence of professionals necessary for the safe provision of medical services. At the same time, such verifications must be proportionate, non-discriminatory, and must not create unjustified barriers to professional mobility.

Special attention is given to the requirements for CPD, aimed at maintaining the relevance of knowledge and skills of healthcare workers regardless of the country in which they practice.

All regulatory changes in EU countries concerning professional regulation in healthcare are accompanied by a mandatory assessment of their impact on patient safety, which is a key priority. Any simplification of mobility procedures should not lead to a reduction in the quality standards of medical care or deterioration in the protection of patients' rights.

The Directive also supports the development of the EQF, which allows for the comparison of national professional levels according to common european indicators of competencies, knowledge, skills, and responsibilities.

The WHO-ASPHER Competency Framework (2020) defines the key K/S/A for the public health workforce in the European Region, aligned with the principles of the European EQF and Sustainable development goal 3 (SDG 3) – "Ensure healthy lives and promote well-being for all at all ages." It serves as a methodological foundation for developing national professional standards, educational programs, and CPD systems, and is integrated into the WHO Europe Health Workforce Sustainability Toolkit (2020–2025). The framework employs approaches to planning, investing, and monitoring competencies, ensuring harmonization of qualifications and enhancing patient safety within the context of universal health coverage [14].

On February 22, 2024, WHO and the Ministry of Health of Ukraine signed the WHO-Ukraine Cooperation Strategy for 2024–2030, which outlines the Organization's commitment to support Ukraine's healthcare reform efforts, emphasizing the need for investments in healthcare infrastructure, workforce development, and reform implementation to align with EU standards [15].

In accordance with Article 39[1] "Sectoral councils for the development of professional standards" of the Law of Ukraine "On Education," a Sectoral Council for the development of professional standards in the field of health care (hereinafter – the Sectoral Council) has been established in Ukraine within the framework of cooperation between the Ministry of health of Ukraine and the National qualifications agency.

The responsibilities of the Sectoral Council include:

− organizing, coordinating, or directly developing professional standards;

− participating in the development of standards and tools for assessing qualifications and learning outcomes;

− analyzing and forecasting the development of professional and partial professional qualifications in the sectoral or cross-sectoral labor market;

− conducting monitoring studies and developing medium-term forecasts of labor demand by types of economic activity in terms of professional and partial professional qualifications.

The Sectoral Council was established by a joint decision of authorized representatives of the National academy of medical sciences of Ukraine, the Shupyk National healthcare university of Ukraine, and the Public Union "Ukrainian federation of professional medical associations" on August 30, 2023. Members of the Sectoral Council include representatives of the Ministry of Health of Ukraine, scientific institutions, educational institutions of various levels, enterprises (employers) in the relevant sector, trade union associations, public organizations, and others.

According to the operational procedure of the Sectoral Council, working groups are created for each standard, comprising representatives of employers, trade unions, government authorities, educators, and researchers.

The Sectoral Council conducts training sessions in collaboration with the National qualifications agency, approves the procedure for competitive selection of working group participants, working regulations, and the format and structure of professional standards. As of June 2024, more than 230 standards have been drafted, 140 working groups are active, and 813 representatives from institutions have been engaged. The first 16 draft standards are undergoing public consultation.

The Sectoral Council, in cooperation with the National qualifications agency, has developed the following:

− unified elements of the professional standard passport for medical professions;

− a standardized table of digital competencies for medical professions (based on the "Conceptual reference framework for digital competencies of health care workers and the development of information culture, digital literacy (digital awareness), cybersecurity, and cyber hygiene of health care workers" approved by the Ministry of digital development, digital transformations, and digitalization on October 6, 2023);

− content and structural elements of tender competencies to be included in the list of professional characteristics of health care workers.

According to the order of the Chair of the Sectoral Council, a working group was established on March 19, 2025 (Order No. 169/2025). This working group includes specialists from the State Institution "O.M. Marzieiev Institute for public health of the National academy of medical sciences of Ukraine." The working group is currently focused on developing professional standards, including those for professionals/specialists in public health.

Thus, Ukraine's regulatory framework for developing professional standards, particularly in healthcare and public health, is already embedded in the logic of European directives and qualification frameworks. Currently undergoing active adaptation, it enables integration into the broader European educational and professional space. Applying such approaches in developing a professional standard for public health specialists in Ukraine will facilitate mutual recognition of qualifications, workforce mobility, and improved patient safety in the context of transnational threats.

Prospects for further research

Future research should focus on piloting and evaluating the implementation of newly developed professional standards in diverse public health settings across Ukraine. Particular attention should be paid to assessing their impact on workforce performance, system preparedness, and service quality. Additionally, studies exploring the integration of digital tools and competency-based learning platforms into CPD for public health professionals will be vital to ensuring system resilience in both peacetime and crisis conditions.

Conclusions

It has been demonstrated that the national system of professional training in the field of public health in Ukraine, particularly for specialists with non-medical education, is currently at the stage of institutional development, and its further progress requires the implementation of unified approaches to the definition of qualifications. It has been proven that Ukraine's regulatory framework is already largely harmonized with European approaches, particularly with the requirements of Directive 2005/36/EC regarding the recognition of professional qualifications, which opens new opportunities for the professional mobility of specialists.

The scientifically substantiated development and subsequent implementation of modern professional standards will contribute to:

− enhancing human resources capacity through the systematic definition of K/S/A, which will facilitate the formation of integrated qualifications and the development of interdisciplinary competencies;

− harmonization with European and international norms by integrating the approaches of the WHO, the Association of Schools of Public Health in the European Region, the European Qualifications Framework, and Directive 2005/36/EC, thus ensuring the comparability of qualifications, promoting workforce mobility, and improving service quality;

− strengthening the culture of patient safety by incorporating safety culture assessment algorithms into professional standards, thereby reinforcing preventive

measures, ethical responsibility, transparency in reporting, and team collaboration;

− introducing preparedness indices and effectiveness monitoring based on the indicators of the European concept of "Public Health Emergency Preparedness", which will create a quantitative basis for assessing the preparedness level of institutions and personnel and allow for annual updates of standards;

− supporting continuous professional development through the implementation of a competency framework and preparedness indicators, which will form the foundation for CPD programs aimed at updating knowledge and skills in emergency response, thus increasing the resilience of the healthcare system during wartime and post-war periods.

Overall, the scientifically grounded development of a modern professional standard in the field of public health will enhance the adaptability of the national healthcare system to crisis challenges, strengthen the sanitary and epidemiological safety of the population, and facilitate the integration of Ukrainian specialists into the European and global professional community.

Bibliography

1. Семигіна Т, Рашкевич Ю. Базові поняття системи кваліфікацій у контексті трансформації освітньої парадигми. Репрезентація освітніх досягнень, масмедіа та роль філології у сучасній системі наук. Вінниця, 2021. DOI: 10.36074/rodmmrfssn.ed-2.03.

2. Немченко АС, Назаркіна ВМ, Косяченко КЛ, Бабенко ММ. Проблеми формування професійного середовища з оцінки медичних технологій в Україні. Health & Education. 2023;2:28–36. DOI: 10.32782/health-2023.2.5.

3. Золотий АТ. Інноваційні підходи до професійного розвитку персоналу закладу охорони здоров'я. Кваліфікаційна робота: спец. 073 – менеджмент освітньо-професійна програма – менеджмент закладів охорони здоров'я; наук. керівник к.е.н., доц. О.П. Дяків. Тернопіль: ЗУНУ, 2023:68. URL: https://dspace.wunu.edu.ua/bitstream/316497/50744/1/%d0%97%d0%9e%d0%9b%d0%9e%d0%a2%d0%98%d0%99%20%d0%90.%20%d0%a2.%20%d0%9c%d0%97%d0%9e%d0%97%d0%b7%d0%bc-22.pdf

4. Яворовський ОП, Сергета ІВ, Брухно РП, Скалецький ЮМ, Чопчик ВД, Варивончик ДВ, Зенкіна ВІ. До питання створення алгоритму оцінювання культури безпеки в сучасних закладах охорони здоров'я. Медичні перспективи. 2024;29,2:194–205. DOI: 10.26641/2307-0404.2024.2.307698.

5. Риган ММ, Яворовський ОП, Брухно РП, Скалецький ЮМ, Бадюк МІ, Кудієвський ЯВ. Найважливіші професійно значущі якості фахівців з безпеки пацієнтів. Медичні перспективи. 2023;28,2:183–190. DOI: 10.26641/2307-0404.2023.2.283413.

6. Yujing Cai, Jing Wang, Pinrong Ding. A competency model for basic public health professionals in public health emergencies. J Eval Clin Pract. 2025; 31(2):e14128. DOI: 10.1111/jep.14128.

7. Hites LS, Lafreniere AV, Wingate MS, Anderson AC, Ginter PM, Santacaterina L, McCormick LC. Expanding the public health emergency preparedness competency set to meet specialized local and evolving national needs: a needs assessment and training approach. J Public Health Manag Pract. 2007;13(5):497–505. DOI: 10.1097/01.PHH.0000285203.56211.64.

8. Hung KKC, MacDermot MK, Hui TSI, Chan SY, Mashino S, Mok CPY, Leung PH, Kayano R, Abrahams J, Wong CS, Chan EYY, Graham CA. Mapping study for health emergency and disaster risk management competencies and curricula: literature review and cross-sectional survey. Global Health. 2024;20(1):15. DOI: 10.1186/s12992-023-01010-y.

9. MacKay M, Ford C, Grant LE, Papadopoulos A, McWhirter JE. Developing public health competency statements and frameworks: a scoping review and thematic analysis of approaches. BMC Public Health. 2023;23(1):2240. DOI: 10.1186/s12889-023-17182-6.

10. Moore A, Errett NA, Patel R. Public Health Emergency Preparedness and Response Workforce Competencies: Developing and Supporting the Next Generation of Practitioners. Disaster Med Public Health Prep. 2025;19:131. DOI: 10.1017/dmp.2025.10068.

11.Lee JM, Jansen R, Sanderson KE, Guerra F, Keller-Olaman S, Murti M, O'Sullivan TL, Law MP, Schwartz B, Bourns LE, Khan Y. Public health emergency preparedness for infectious disease emergencies: a scoping review of recent evidence. BMC Public Health. 2023;23(1):420. DOI: 10.1186/s12889-023-15313-7.

12. Khan Y, Brown AD, Gagliardi AR, O'Sullivan T, Lacarte S, Henry B, Schwartz B. Are we prepared? The development of performance indicators for public health emergency preparedness using a modified Delphi approach. PLoS One. 2019;23:14–26. DOI: 10.1371/journal.pone.0226489.

13. Wei W, Liu Y, Zhou N, Tian M, Xie L, Watson R, Dai F, Chen Y, Hu W. Constructing an emergency preparedness evaluation index system for public use during major emerging infectious disease outbreaks: a Delphi study. BMC Public Health. 2023;23(1):1109. DOI: 10.1186/s12889-023-15980-6.

14. WHO-ASPHER competency framework for the public health workforce in the European region. World Health Organization. 2020:73. DOI: WHO/EURO:2020-3997-43756-61569.

15. National workforce capacity to implement the essential public health functions including a focus on emergency preparedness and response: roadmap for aligning WHO and partner contributions. Centers for Disease Control. 2022:28. URL: https://iris.who.int/bitstream/handle/10665/354384/9789240050402-eng.pdf?sequence=1

References

1. Semyhina T, Rashkevych Yu. Bazovi poniattia systemy kvalifikatsii u konteksti transformatsii osvitnoi paradyhmy [Basic concepts of the qualifications system in the context of the transformation of the educational paradigm]. Reprezentatsiia osvitnikh dosiahnen, masmedia ta rol filolohii u suchasnii systemi nauk. Vinnytsia, 2021. DOI: 10.36074/rodmmrfssn.ed-2.03 (in Ukrainian).

2. Nemchenko AS, Nazarkina VM, Kosiachenko KL, Babenko MM. Problemy formuvannia profesiinoho seredovyshcha z otsinky medychnykh tekhnolohii v Ukraini [Problems of forming a professional environment for medical technology assessment in Ukraine]. Health & Education. 2023;2:28–36. DOI: 10.32782/health-2023.2.5 (in Ukrainian).

3. Zolotyi AT Innovatsiini pidkhody do profesiinoho rozvytku personalu zakladu okhorony zdorovia [Innovative approaches to the professional development of health care personnel]. Kvalifikatsiina robota : spets. 073 – menedzhment osvitno-profesiina prohrama – menedzhment zakladiv okhorony zdorovia; nauk. kerivnyk k.e.n., dots. O. P. Diakiv. Ternopil : ZUNU, 2023:68. URL: https://dspace.wunu.edu.ua/bitstream/316497/50744/1/%d0%97%d0%9e%d0%9b%d0%9e%d0%a2%d0%98%d0%99%20%d0%90.%20%d0%a2.%20%d0%9c%d0%97%d0%9e%d0%97%d0%b7%d0%bc-22.pdf (in Ukrainian).

4. Yavorovskyi OP, Serheta IV, Brukhno RP, Skaletskyi YuM, Chopchyk VD, Varyvonchyk DV, Zenkina VI. Do pytannia stvorennia alhorytmu otsiniuvannia kultury bezpeky v suchasnykh zakladakh okhorony zdorovia. Medychni perspektyvy [On the issue of creating an algorithm for assessing safety culture in modern healthcare institutions]. 2024;29,2:194–205. DOI: 10.26641/2307-0404.2024.2.307698. (in Ukrainian).

5. Ryhan MM, Yavorovskyi OP, Brukhno RP, Skaletskyi YuM, Badiuk MI, Kudiievskyi YaV. Naivazhlyvishi profesiino znachushchi yakosti fakhivtsiv z bezpeky patsiientiv [Important professional qualities of patient safety specialists]. Medychni perspektyvy. 2023;28,2:183–190. DOI: 10.26641/2307-0404.2023.2.283413. (in Ukrainian).

6. Yujing Cai, Jing Wang, Pinrong Ding. A competency model for basic public health professionals in public health emergencies. J Eval Clin Pract. 2025; 31(2):e14128. DOI: 10.1111/jep.14128.

7. Hites LS, Lafreniere AV, Wingate MS, Anderson AC, Ginter PM, Santacaterina L, McCormick LC. Expanding the public health emergency preparedness competency set to meet specialized local and evolving national needs: a needs assessment and training approach. J Public Health Manag Pract. 2007;13(5):497–505. DOI: 10.1097/01.PHH.0000285203.56211.64.

8. Hung KKC, MacDermot MK, Hui TSI, Chan SY, Mashino S, Mok CPY, Leung PH, Kayano R, Abrahams J, Wong CS, Chan EYY, Graham CA. Mapping study for health emergency and disaster risk management competencies and curricula: literature review and cross-sectional survey. Global Health. 2024;20(1):15. DOI: 10.1186/s12992-023-01010-y.

9. MacKay M, Ford C, Grant LE, Papadopoulos A, McWhirter JE Developing public health competency statements and frameworks: a scoping review and thematic analysis of approaches. BMC Public Health. 2023;23(1):2240. DOI: 10.1186/s12889-023-17182-6.

10. Moore A, Errett NA, Patel R. Public Health Emergency Preparedness and Response Workforce Competencies: Developing and Supporting the Next Generation of Practitioners. Disaster Med Public Health Prep. 2025;19:131. DOI: 10.1017/dmp.2025.10068.

11.Lee JM, Jansen R, Sanderson KE, Guerra F, Keller-Olaman S, Murti M, O'Sullivan TL, Law MP, Schwartz B, Bourns LE, Khan Y. Public health emergency preparedness for infectious disease emergencies: a scoping review of recent evidence. BMC Public Health. 2023;23(1):420. DOI: 10.1186/s12889-023-15313-7.

12. Khan Y, Brown AD, Gagliardi AR, O'Sullivan T, Lacarte S, Henry B, Schwartz B. Are we prepared? The development of performance indicators for public health emergency preparedness using a modified Delphi approach. PLoS One. 2019;23:14–26. DOI: 10.1371/journal.pone.0226489.

13. Wei W, Liu Y, Zhou N, Tian M, Xie L, Watson R, Dai F, Chen Y, Hu W. Constructing an emergency preparedness evaluation index system for public use during major emerging infectious disease outbreaks: a Delphi study. BMC Public Health. 2023;23(1):1109. DOI: 10.1186/s12889-023-15980-6.

14. WHO-ASPHER competency framework for the public health workforce in the European region. World Health Organization. 2020:73. DOI: WHO/EURO:2020-3997-43756-61569.

15. National workforce capacity to implement the essential public health functions including a focus on emergency preparedness and response: roadmap for aligning WHO and partner contributions. Centers for Disease Control. 2022:28. URL: https://iris.who.int/bitstream/handle/10665/354384/9789240050402-eng.pdf?sequence=1

Purpose. The aim of the study is to substantiate the feasibility of developing professional standards for public health professionals/specialists, taking into account European experience in the context of Ukraine's European integration.

Materials and methods. The study used methods of systemic, comparative and logical-legal analysis of the regulatory framework in the field of public health in Ukraine and the European Union.

Results. European legislation, namely Directive 2005/36/EC, is a key legal instrument in regulating professional mobility through the recognition of qualifications.

The study substantiates the relevance of developing professional standards for public health professionals/specialists with higher non-medical education as a strategic tool for improving sanitary and epidemiological security in Ukraine, especially in the context of integration into the European Union and responding to emergencies.

Conclusions. It is shown that the domestic system of professional training in the field of public health, in particular for specialists with non-medical education, is at the stage of institutional formation, and its further development requires the implementation of unified approaches to the definition of qualifications. It is proved that the regulatory and legal framework of Ukraine is already largely harmonized with European approaches, in particular with the requirements of Directive 2005/36/EC on the recognition of professional qualifications.

Scientifically grounded professional standards will contribute to strengthening the workforce, harmonizing with European norms, enhancing the culture of safety, implementing preparedness monitoring, and supporting continuous professional development.

Key words: professional standards, professionals/specialists of public health, non-medical education, sanitary and epidemiological safety, crisis preparedness, Ukraine, European Union.

Мета: обґрунтування доцільності розроблення професійних стандартів для професіоналів/фахівців із громадського здоров'я з урахуванням європейського досвіду в контексті євроінтеграції України.

Матеріали і методи. У дослідженні використано методи системного, порівняльного та логіко-правового аналізу нормативно-правової бази у сфері громадського здоров'я в Україні, ВООЗ та Європейському Союзі.

Результати. За результатами аналітичного огляду наукової вітчизняної та зарубіжної літератури у сфері професійної стандартизації праці фахівців із громадського здоров'я, вивчення українського та європейського законодавства встановлено таке.

Європейське законодавство у сфері охорони здоров'я формує нормативну базу, що забезпечує збалансоване поєднання свободи пересування фахівців та гарантій якості медичних послуг. Директива 2005/36/ЄС виступає ключовим правовим інструментом у регулюванні професійної мобільності через визнання кваліфікацій.

Установлення мінімальних стандартів якості професійної підготовки є не лише механізмом гармонізації освітніх підходів, а й інструментом забезпечення безпеки пацієнтів у країнах – членах ЄС.

Регламентація мовної компетентності як окремого критерію професійної відповідності є свідченням пріоритетності безпечного надання медичних послуг.

Безперервний професійний розвиток визнається важливим складником професійної культури у ЄС. Його обов'язковість слугує механізмом підтримання актуальності компетенцій фахівців, що особливо важливо в умовах швидкої зміни знань, технологій та практик у сфері охорони здоров'я.

Нормативно-правова система України щодо розроблення професійних стандартів, зокрема у сфері охорони здоров'я та громадського здоров'я, уже вбудована у логіку європейських директив та кваліфікаційних рамок і на етапі активної адаптації дає змогу інтегруватися у загальноєвропейський освітній та професійний простір.

У дослідженні обґрунтовано актуальність розроблення професійних стандартів для професіоналів/фахівців із громадського здоров'я з вищою немедичною освітою як стратегічного інструменту підвищення санітарно-епідеміологічної безпеки в Україні, особливо в умовах інтеграції до Європейського Союзу та реагування на надзвичайні ситуації.

Висновки. Показано, що вітчизняна система професійної підготовки у галузі громадського здоров'я, зокрема для фахівців із немедичною освітою, перебуває на етапі інституціонального становлення, а її подальший розвиток вимагає упровадження уніфікованих підходів до визначення кваліфікацій. Доведено, що нормативно-правова база України вже значною мірою гармонізована з європейськими підходами, зокрема з вимогами Директиви 2005/36/ЄС щодо визнання професійних кваліфікацій.

Науково обґрунтоване розроблення і подальше впровадження сучасних професійних стандартів сприятимуть:

– підвищенню кадрового потенціалу через системне визначення знань, навичок і ставлень, що, своєю чергою, сприятиме формуванню інтегрованих кваліфікацій і розвитку міждисциплінарних компетентностей;

– гармонізації з європейськими та міжнародними нормами шляхом інтеграції підходів ВООЗ, Асоціації шкіл громадського здоров'я Європейського регіону, Європейської рамки кваліфікацій та Директиви 2005/36/ЄС, що забезпечить порівняність кваліфікацій, сприятиме мобільності працівників і підвищенню якості послуг;

– посиленню культури безпеки пацієнтів через включення алгоритмів оцінювання культури безпеки до професійних стандартів, що закріпить превентивні заходи, етичну відповідальність, прозорість звітування та командну взаємодію;

– упровадженню індексів готовності та моніторингу ефективності на основі показників європейської концепції «Підготовка системи громадського здоров'я до надзвичайних ситуацій», що створить кількісну базу для оцінювання рівня підготовленості установ і персоналу та дасть змогу щорічно оновлювати стандарти;

– підтримці безперервного професійного розвитку через упровадження рамки компетентностей і показників готовності, які стануть основою для програм безперервного професійного розвитку, спрямованих на актуалізацію знань і навичок у сфері надзвичайного реагування, що підвищить стійкість системи охорони здоров'я у воєнний та післявоєнний періоди.

У цілому науково обґрунтоване розроблення сучасного професійного стандарту у сфері громадського здоров'я підвищить адаптивність національної системи охорони здоров'я до кризових викликів, зміцнить санітарно-епідеміологічну безпеку населення та сприятиме інтеграції українських фахівців у європейський і глобальний професійний простір.

Ключові слова: професійні стандарти, професіонали/фахівці з громадського здоров'я, немедична освіта, санітарно-епідеміологічна безпека, кризова підготовка, Україна, Європейський Союз.

Conflict of interest: absent.
Конфлікт інтересів: відсутній.

Information about the authors

Shkrobanets Ihor Dmytrovych – Doctor of Medical Sciences, Professor, Acting Director of the State Institution «O.M. Marzeyev Institute for Public Health of the National academy of medical science of Ukraine»; Hetman Pavlo Polubotok Str., 50, Kyiv, Ukraine, 02094.
shkrobanetsmail@gmail.com, ORCID ID: 0000-0003-2778-2463 [A, C, D, E, F]

Makhniuk Valentyna Mykhaylivna – Doctor of Medical Sciences, Professor, Head of the Hygiene Laboratory of planning and development of Populated Areas of the State Institution «O.M. Marzeyev Institute for Public Health of the National academy of medical science of Ukraine»; Hetman Pavlo Polubotok Str., 50, Kyiv, Ukraine, 02094.
valentyna2567@gmail.com, ORCID ID: 0000-0001-6196-4370 [A, B, C, D, F]

Petrychenko Oleksandr Oleksandrovych – Doctor of Medical Sciences, Professor, Head of the Medical and Organizational Department, Presidium of the National Academy of Medical Sciences of Ukraine; Yurii Illienka Str., 53 Kyiv, Ukraine, 04050.
medlu@ukr.net, ORCID ID: 0000-0003-3226-2008 [A, C, D, E]

Ivanko Olesia Mykhailivna – Doctor of Medical Sciences, Professor, Head of the Research Institute of military medicine problems of the Ukrainian military medical academy; Kniaziv Ostrozkykh Str., 45/1, building 33, Kyiv, Ukraine, 01015. ol_ivanko@ukr.net, ORCID ID: 0000-0002-5929-255X [C, D, E]

Palamar Borys Ivanovych – Doctor of Medical Sciences, Professor, Director of the Educational and Scientific Institute of public health and preventive medicine, Bogomolets National Medical University; Beresteiskyi Avenue, 34, Kyiv, Ukraine, 03057.
palamar.bi@ukr.net, ORCID ID: 0000-0003-2510-0713 [B, E, F]

Стаття надійшла до редакції 03.07.2025
Дата першого рішення 12.09.2025
Стаття подана до друку 30.09.2025