

## SWOT ANALYSIS OF UNDERGRADUATE AND POSTGRADUATE MEDICAL TRAINING PROGRAMS IN OCCUPATIONAL HEALTH

DOI: <https://doi.org/10.26758/14.1.17>

Elena CIOBANU (1), Dumitru CHEPTEA (2), Raisa DELEU (3), Victor MEȘINA (4), Serghei CEBANU (5)

(1), (2), (3), (4), (5) *Nicolae Testemitanu* State University of Medicine and Pharmacy, Republic of Moldova, e-mail: (1) [elena.ciobanu@usmf.md](mailto:elena.ciobanu@usmf.md) (2) [dumitru.cheptea@usmf.md](mailto:dumitru.cheptea@usmf.md) (3) [raisa.russu@usmf.md](mailto:raisa.russu@usmf.md) (4) [victor.mesina@usmf.md](mailto:victor.mesina@usmf.md) (5) [serghei.cebanu@usmf.md](mailto:serghei.cebanu@usmf.md)  
(2), (3), (4) National Agency for Public Health, Republic of Moldova

Address correspondence to: Elena Ciobanu, Hygiene Discipline, *Nicolae Testemitanu* State University of Medicine and Pharmacy, bd. Stefan cel Mare si Sfânt, 165, Ph.: (373) 22 205-486, Chisinau, the Republic of Moldova, e-mail: [elena.ciobanu@usmf.md](mailto:elena.ciobanu@usmf.md)

Author's contributions: EC conducted literature review, and wrote the first manuscript; DC, EC revised, added and completed the final text; RD conducted literature review; EC, VM, SC conducted literature review, conceptualized the idea and revised the article critically. All the authors approved the final version of the manuscript.

### Abstract

**Objectives.** Carrying out SWOT analysis of undergraduate and postgraduate training programs to identify factors that may affect the quality, sustainability, and relevance of the program, with the aim of contributing to the training of occupational health and safety specialists.

**Material and methods.** The SWOT analysis was carried out on four curricula, which were developed and applied in the period 2021–2023, within the *Nicolae Testemitanu* State University of Medicine and Pharmacy from the Republic of Moldova. Occupational health training programs are intended for students, residents, and physicians.

**Results.** The SWOT analysis of the "Occupational Health" curriculum underscores its comprehensive approach to workplace health and the delivery of essential competencies. Strengths include clearly defined, relevant objectives, integration of related disciplines, and broad topic coverage. Nevertheless, challenges may arise from limited intersectoral collaboration and resource constraints. Opportunities lie in cross-disciplinary integration and industry partnerships, while threats stem from the rapidly evolving field and potential program stagnation. In the case of "Occupational Medicine and Occupational Diseases," it offers a practical approach but demands prerequisite knowledge and updates for sustained effectiveness. "Occupational Medicine" boasts diversity and accessibility but faces duration and funding challenges. "Workplace Health Promotion" addresses contemporary concerns but necessitates adequate funding and resources.

**Conclusions.** Through a strategic approach and collaboration with stakeholders, the quality and relevance of the program can be ensured, contributing to the preparation of occupational health specialists for the current and future needs of the labor market.

**Keywords:** SWOT analysis, curriculum, occupational health, occupational medicine.

## Introduction

Modern occupational pathology studies the whole spectrum of occupationally determined health disorders, including the development of diseases related to the profession. However, the weak point of the occupational health service is still the principles of organizing the actual model of providing workers' occupational medicine services. In this sense, in order to detect the early forms of the disease, performing qualitative medical examinations of workers is very important, and for medical universities, a primary objective is to train specialists multilaterally trained in this field, i.e., on clinical and hygienic issues of occupational medicine (Deleu, Meşina, & Russu, 2016).

Human resources in the field of occupational health and safety must be trained in accordance with international requirements and regulations. In the Republic of Moldova, there is a need to train a new category of specialists in this field (Cheptea et al., 2022; Jelamschi et al., 2022). In this sense, it is important to take into account in the training of the respective specialists the skills required of an occupational medicine physician, as accepted by the European Association of Schools of Occupational Medicine (EASOM), the Occupational Medicine section of the Union of European Medical Specialties (UEMS), and the European Network of the Occupational Physicians Society (ENOPS). At the same time, it is necessary to take into account the national context and carry out system research to provide decision-makers with evidence to justify reforms (Gold, 2016), including through machine learning (Doupe, Faghmous, & Basu, 2019).

The current occupational health and safety services and workers' health surveillance in the Republic of Moldova require a reorientation of content and activities. Therefore, for the Republic of Moldova, which is currently in the early stages of reformulating the main tasks in the organization of occupational health services, taking over the experience of the countries of the European Union, which have gone through similar transitions, would be of great help. The Government of the Republic of Moldova recently ratified Convention 161 on occupational health services and work is currently underway to develop national policies, laws, and programs on occupational health services. Of major importance is the development of training programs for specialists in the field and the creation and consolidation of sustainable partnerships in order to promote European dimensions in the field (Deleu et al., 2016; Deleu, Cebanu, & Cheptea, 2020).

## Material and methods

SWOT analysis is a method for identifying and analyzing internal strengths and weaknesses and external opportunities and threats that shape current and future operations and help develop strategic goals.

### *Data collection*

In order to conduct the SWOT analysis of the degree programs, relevant data and information were collected from a number of sources. These sources include: (i) curricula: existing study boards and curricula were examined in detail, including objectives, structure, content, and teaching methodology; (ii) external data: research was carried out to obtain information about the external environment, which can influence the study process, such as employment opportunities, contemporary trends, motivation, competition, and accessibility; (iii) analysis of official documents: the official documents of the educational institution were examined in order to understand the context and the requirements for future specialists in the field of occupational health.

### *The material analyzed*

To achieve the proposed goal, the following curricula from the *Nicolae Testemitanu* State University of Medicine and Pharmacy from the Republic of Moldova were analyzed: (i) "Occupational Health" Curriculum intended for IV year students, Public Health Specialty; (ii) Curriculum "Occupational Medicine and Occupational Diseases" intended for V-year students, Faculty of Medicine; (iii) "Occupational Medicine" Curriculum intended for residents, Occupational Medicine specialty; (iv) Curriculum "Workplace Health Promotion" intended for specialists within the National Agency for Public Health.

### *Evaluation period*

The curricula that were developed, updated, and implemented in the 2021-2023 study period were retained for evaluation.

### *Evaluation methods*

To assess the study programs, document analysis was employed to thoroughly examine the curriculum's content and objectives, aiming to pinpoint both strengths and weaknesses. Additionally, the approach of benchmarking study programs against academic standards and best practices in the field was utilized to gauge their level of adherence and innovation.

### *Creation of the SWOT matrix*

Utilizing the gathered data and evaluations conducted, we constructed the SWOT matrix. This visual representation illustrates strengths, weaknesses, opportunities, and threats, enabling the identification of interrelationships and connections among these elements.

### *Interpretation of the results*

The results of the SWOT matrix were analyzed to obtain a detailed and in-depth picture of the study programs. Aspects requiring improvement were identified, and recommendations were proposed to optimize the curricula.

### *Validation of the analysis*

The accuracy and pertinence of the SWOT analysis were guaranteed by seeking input from experts in the field and referencing specialized literature.

## **Results**

### *General characteristic*

A curriculum is a detailed presentation of a specific course or discipline. It serves as a roadmap for a course and provides a comprehensive overview of various aspects related to that course, including the content (subject), the teaching, learning, research, and evaluation methods

used, and the way the course is organized: theoretical and clinical activities (lectures, seminars, clinical activities, etc.).

In the context of university education, a curriculum is formulated for every subject. These curricula undergo a process of discussion, analysis, revision, and approval every two years. This occurs initially during the primary unit's meeting, followed by a review by the Quality Assurance and Curriculum Evaluation Commission in the specific field, and finally, this is approved by the Faculty Council.

The postgraduate training through residency in each specialty is carried out on the basis of the mandatory theoretical and practical training program, with strict compliance with the requirements for postgraduate training, and aims at the resident obtaining a professional qualification according to national and European requirements. The development of postgraduate training programs through residency is carried out according to the form PR 8.5.1, "Postgraduate training programs through residency". Every 5 years, the program is discussed, analyzed, updated, and approved consecutively by the department, the Scientific-Methodical Committee, the Council of the Faculty of Residence, and the University Quality Management Council. It is subsequently approved by the Rector and the Ministry of Health.

### ***SWOT analysis of the "Occupational Health" curriculum***

#### *The main strengths of the occupational health curriculum:*

Occupational health is regarded as a foundational discipline within the realm of public health, playing a pivotal role in community medicine. This underscores the significance and essential nature of incorporating the study of occupational health into the professional training program, as it helps nurture the specific skills required for this field.

The goals of the "Occupational Health" discipline are explicitly outlined, encompassing tasks like advising on the implementation of professional work under physiological and hygienic standards, sustaining optimal work capacity, and preventing both occupational ailments and job-related diseases. These objectives are precisely defined and directly pertinent to the training of public health competencies.

The integration of the "Occupational Health" discipline with other hygiene-related disciplines and the significance of these connections in the training process are emphasized. This integration enhances a more holistic comprehension of health-related issues and fosters the acquisition of skills required to recognize and tackle these issues in the context of the workplace.

The curriculum encompasses a broad spectrum of subjects pertinent to occupational health, including the hygienic and physiological aspects of work activities, preventive hygienic oversight, and the methods employed in prophylactic medical examinations.

The allocation of hours among lectures, practical work, and individual study is well-balanced, allowing students to grasp and apply theoretical knowledge effectively in practical contexts.

The training objectives encompass various industries and sectors, offering a comprehensive perspective on occupational health.

The objectives at the application and integration levels underscore practical skills and the capacity to apply knowledge in real-world scenarios.

The topic is well organized and addresses specific aspects of various industries and areas of activity.

*Some vulnerabilities highlighted within the "Occupational Health" curriculum can be mentioned:*

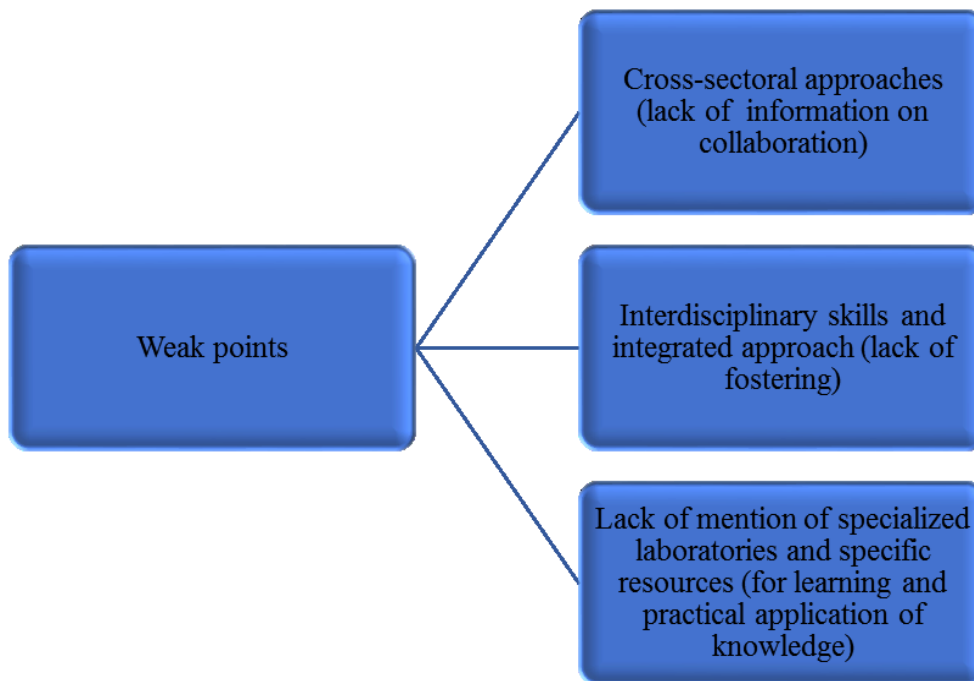
A potential limitation pertains to cross-sectoral approaches. Although the text references intersectoral collaboration in the context of occupational health as a goal of professional training, it does not offer information on how this collaboration is encouraged and facilitated within the program. This could be a limitation in fostering interdisciplinary skills and an integrated approach to addressing occupational health issues.

There is no mention of the existence of specialized laboratories or other specific resources that could support learning and the practical application of knowledge.

In Figure 1, the "cross-sectoral approaches" represent the first limitation discussed. "Interdisciplinary skills and integrated approach" represent the consequence of the first limitation. "Lack of mention of specialized laboratories and specific resources" represents the second limitation.

**Figure 1**

*Visualizing weaknesses in the "Occupational Health" curriculum*



*Here are some of the study options that the "Occupational Health" curriculum provides:*

Integrating occupational health with other relevant disciplines such as food health and human nutrition, environmental health, human ecology, and others provides an opportunity to approach health holistically and develop a comprehensive understanding of the factors influencing the condition of population health.

The training of specialized skills is of interest. Studying occupational health within the professional training program offers students the opportunity to develop specialized skills and knowledge in the field of public health. This can be a real opportunity to access a variety of jobs and professional opportunities in the field of occupational health.

The discipline can benefit from integrating technology into the learning process, such as using simulations or other interactive tools to reinforce understanding and practical application of knowledge.

Collaboration with occupational health professionals and industry can provide opportunities for students to better understand the practicalities and challenges of the field.

Expanding research programs in occupational health could enhance the research skills of students and contribute to the development of knowledge in the field.

*The primary challenges identified in the "Occupational Health" curriculum can be noticed:*

An overview of the discipline "Occupational Health" is provided, but no specific information is provided regarding the details of implementation, evaluation, or available resources. This can pose a threat to the correct understanding and application of skills and knowledge in practice.

In the context of occupational health, norms, and knowledge can change rapidly as technology and the occupational environment evolve. Therefore, a potential threat could be to ensure that the curriculum and subject content are regularly updated to reflect new findings and demands of the field.

Lack of financial resources and rising inflation can limit access to modern technologies or other tools necessary for effective learning.

Political instability and legislative or regulatory changes may require constant updating of content and teaching methodologies.

The lack of a system for monitoring and evaluating graduation and the results obtained can make it difficult to measure the success of the education program.

Migration of medical personnel and health specialists abroad.

### ***SWOT analysis of the "Occupational Medicine and Occupational Diseases" curriculum***

*The following advantages are characteristic of the "Occupational Medicine and Occupational Diseases" course:*

The discipline "Occupational Medicine and Occupational Diseases" addresses medical aspects from various fields, such as medical semiology, internal medicine, physiology, oncology, etc., which allows a complex approach to occupational diseases.

The curriculum provides both theoretical knowledge and practical skills through laboratory work, seminars, and hands-on work, preparing students for the application of knowledge in medical practice.

The curriculum has clear, well-defined training objectives that cover aspects related to knowledge, understanding, application, and integration of medical knowledge specific to the field of *occupational diseases*.

Systematic work in the library and media library indicates a rigorous and dedicated approach to obtaining relevant and up-to-date information.

Ability to extract the essentials and interpretive skills, highlighting logical thinking and flexibility.

Systematization of the informational material obtained through own activity, reflecting a high level of organization and synthesis capacity.

Analysis of relevant bibliographic sources and compilation of the report according to requirements, highlighting attention to detail and an orientation towards quality and coherence.

*There are certain limitations in the "Occupational Medicine and Occupational Diseases" curriculum that came to our attention and need to be addressed:*

To study the discipline "Occupational Medicine and Occupational Diseases", a clinical base equipped with specific equipment as well as specialists from different fields is necessary. This may present a challenge, at the moment, to the national health service.

The content and caliber of the thematic education plans need to be continuously adapted to the evolving national legislative requirements, currently in the process of alignment with European legislation. The pace of this alignment and adjustment is sluggish and challenging, which diminishes students' trust.

Graduates in the field of "Occupational Medicine and Occupational Diseases" face a lack of consistent and enduring employment opportunities, and there are no advantages or incentives provided to them.

In Figure 2 (see next page), the "clinical base and specialist availability challenges" represent the first limitation discussed, related to the need for a well-equipped clinical base and access to specialists. "Thematic education plans' adaptation" represents the second limitation regarding the need to continuously adapt education plans to legislative requirements and the challenges it presents. "Lack of consistent and enduring employment opportunities and incentives for graduates" represents the third limitation concerning the employment prospects and incentives for graduates in the field of "Occupational Medicine and Occupational Diseases".

*The following study opportunities in the field of "Occupational Medicine and Occupational Diseases" can be highlighted:*

Engaging in the study of the discipline "Occupational Medicine and Occupational Diseases" provides students with the chance to enhance their expertise and understanding in diagnosing, treating, and preventing occupational diseases. These acquired skills can be applied in subsequent medical practice.

Medical disciplines like medical semiology, internal medicine, and radiology can be incorporated into "Occupational Medicine and Occupational Diseases", allowing students to broaden their comprehension and practical abilities within a broader context.

Students have access to up-to-date electronic resources, allowing them to explore information pertinent to the subject they are studying.

The opportunity to cultivate clinical reasoning and enhance logical and interpretive thinking skills is provided.

The chance to organize and analyze informational material is offered, which will facilitate the development of comprehension and synthesis skills.

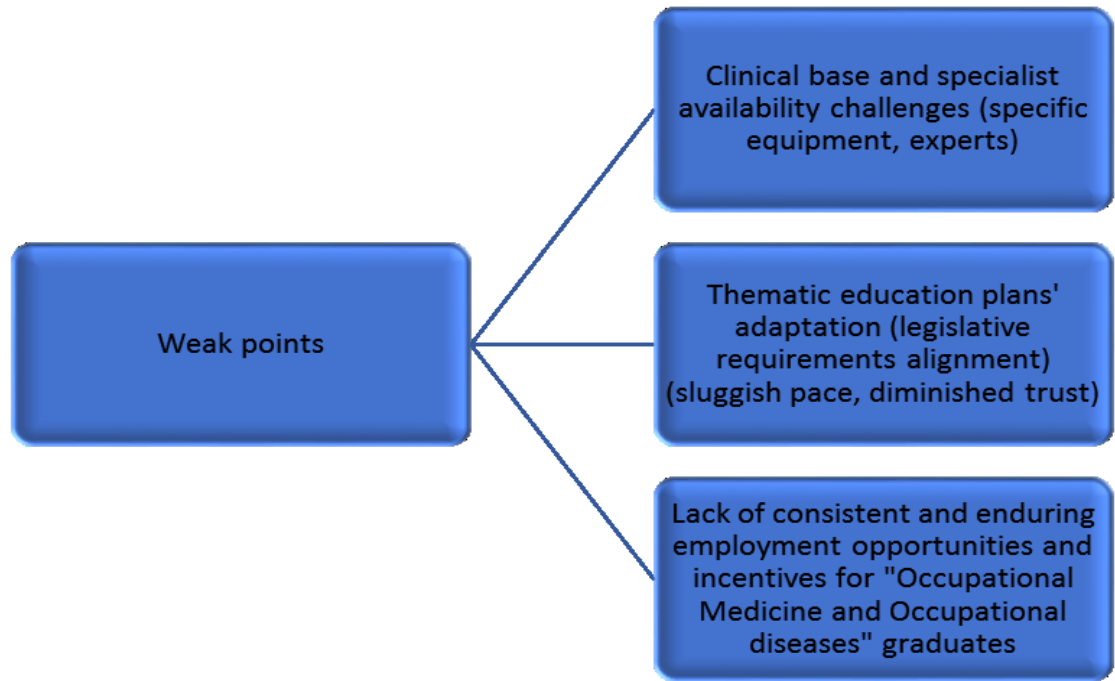
*The principal obstacles encountered in the curriculum of "Occupational Medicine and Occupational Diseases" are:*

Given the complexity of the discipline, a thorough understanding of related and foundational disciplines is essential for the study of occupational diseases.

The limited knowledge base and professional diversity create challenges in achieving substantial progress, particularly when individual efforts, backed by students and appropriately coordinated by instructors, are not encouraged and enforced.

**Figure 2**

*Visualizing weaknesses in the "Occupational Medicine and Occupational Diseases" curriculum*



***SWOT analysis of the "Occupational Medicine" curriculum***

*Exploring the Key Benefits of the "Occupational Medicine" Curriculum:*

The program's diversity and comprehensive coverage of various areas of study empower residents to cultivate knowledge and skills across multiple facets of occupational medicine.

The integration of foundational knowledge such as anatomy, physiology, and pathophysiology into clinical practice enables residents to apply theoretical knowledge to diagnosing and treating occupational diseases.

The emphasis on fostering practical skills in examining patients with occupational diseases facilitates the formation of a timely and suitable clinical approach.

Clinical internships and the encouragement of residents to take on increasing independence in their practical activities, with guidance from teaching staff, offer valuable opportunities for hands-on learning and the application of theoretical knowledge.

The utilization of diverse teaching methods, including lectures, clinical case presentations, and conferences, enhances the comprehension and application of knowledge.

Access to research opportunities and involvement in clinical trials within the field of occupational medicine can significantly enrich residents' knowledge and skills, as well as contribute to innovative advancements in the field.

Collaboration with the practical sector and medical institutions can offer residents valuable internship opportunities and real-world practice experience. This collaboration also aids in gaining insight into the challenges and solutions within the practical sector.

Access to experts and specialists in various fields related to occupational medicine, including toxicologists, ergonomics specialists, and hygienists, can offer a comprehensive perspective on workplace health and safety.



Networking opportunities and collaboration with fellow residents and medical specialists from various disciplines through conferences, congresses, and educational activities can greatly enhance the exchange of knowledge and experiences.

The training program encompasses all pertinent aspects of the specialty.

*Certain shortcomings identified in the "Occupational Medicine" curriculum could be brought up:*

The extended duration of the training program, spanning four years or 192 weeks, can be viewed as demanding for residents, necessitating a substantial investment of time and effort.

Certain disciplines may demand more focused attention and supplementary training, which can be challenging to accommodate within the confines of the residency program.

The considerable number of subjects that residents must study is worth noting.

The restricted number of weeks designated for certain subjects might constrain the extent of in-depth study in those specific areas.

The constrained capacity to specialize in a particular area within occupational medicine may diminish residents' adaptability to meet the specific demands of certain industries and could restrict career opportunities in their areas of interest.

The requirement to consistently update one's knowledge in an ever-evolving field and remain current with new discoveries and research can present challenges for residents.

Sustaining a tenuous connection between higher education institutions and employing organizations, as well as between universities and other collaborative partners.

In Figure 3 (see next page), each weak point is represented with its associated challenges, providing a clear and structured presentation of the concerns mentioned in the text.

*The "Occupational Medicine" curriculum opens up the following study opportunities:*

The growing societal concern for occupational health and safety could result in heightened demand for occupational medicine specialists and create employment opportunities across various industrial sectors.

Technological advancements and investigative methods have the potential to enhance the diagnosis and treatment of occupational diseases.

Engaging in collaborations with other medical specialties and related disciplines can enhance the multidisciplinary approach to addressing workplace health issues.

Partnering with academic institutions and international organizations in the field of occupational medicine can create new opportunities for exchanging experiences and participating in research projects.

The utilization of advanced technologies in diagnosing and treating occupational diseases, including digital technology, artificial intelligence, and telemedicine, has the potential to enhance the efficiency and accuracy of diagnoses and streamline long-term patient monitoring.

*The central issues observed in the "Occupational Medicine" curriculum are:*

Legislative changes and regulations related to occupational health and safety can impact the practice of occupational medicine and may necessitate adaptations to the training program.

Competition in the job market for occupational medicine specialists can indeed pose a challenge and potentially limit employment opportunities.

Political and economic shifts at both the national and international levels can have an impact on investments in occupational health and safety. These changes may subsequently affect the

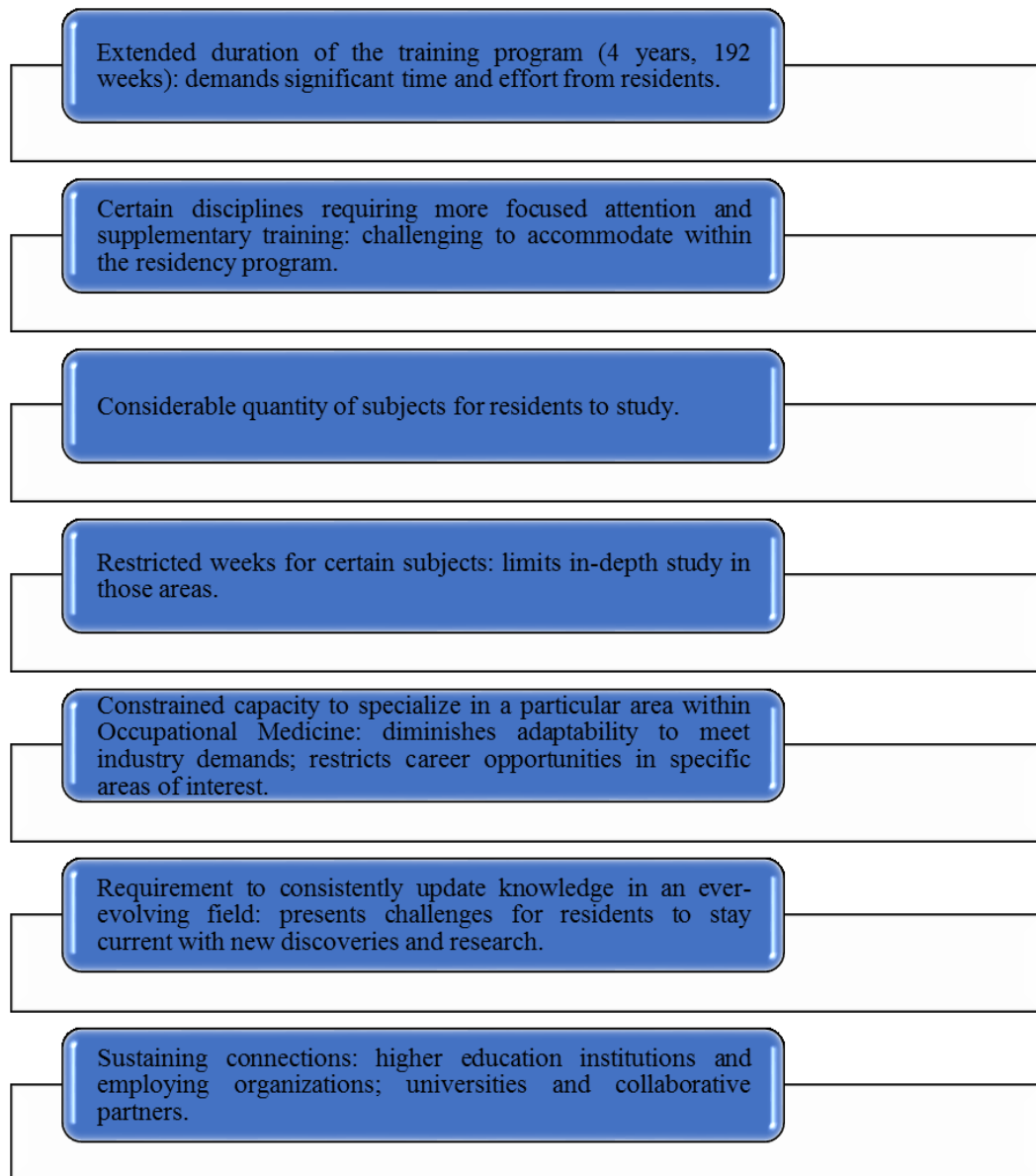
availability of resources and funding required for the development of the occupational medicine residency program.

Competition from other medical specialties or health professionals who offer similar services or adopt an interdisciplinary approach to occupational health has the potential to restrict the demand for and recognition of occupational medicine specialists.

Emerging workplace threats, including risks related to new technologies, materials, and chemicals, may demand new skills and specialized knowledge. Residents must be ready to address these evolving challenges.

**Figure 3**

*Illustrating the "Occupational Medicine" curriculum's shortcomings*



### ***SWOT analysis of the "Workplace Health Promotion" curriculum***

#### *Examining the Fundamental Advantages of the Curriculum "Workplace Health Promotion":*

The course tackles a timely and significant concern within the realm of public health, with a particular emphasis on promoting health in the workplace.

The course is designed to provide professional training to hygiene and epidemiology specialists, equipping them with the skills needed to develop and implement effective health interventions in workplace settings.

The course advocates for an interdisciplinary and intersectoral approach, bolstering collaboration among various stakeholders engaged in promoting workplace health.

The course focuses on preventing occupational diseases and reducing the burden of non-communicable diseases, providing tools and knowledge for identifying and managing risk factors.

The program has generated substantial interest among healthcare workers, signifying a strong desire and dedication to ongoing professional development and the promotion of workplace health. This enthusiasm can serve as a solid foundation for the program's success.

The program benefits from a cadre of well-trained experts and teaching staff capable of delivering current and pertinent information to participants. This can guarantee a high level of quality and professionalism in the courses.

The program can be designed with flexibility to meet the diverse needs and work schedules of participants. By providing online or distance learning options, it becomes accessible to individuals with shift work schedules or time constraints.

#### *There are a couple of drawbacks that have been highlighted in the "Workplace Health Promotion" curriculum:*

The course is exclusively taught in Romanian, which may restrict access and participation for individuals who are not proficient in the language or do not have an advanced level of proficiency in it.

The overall duration of the course is 75 hours, which could be perceived as too lengthy for certain participants or pose a time management challenge for busy professionals.

One of the primary challenges could be the availability of adequate funding to ensure the program's sustainability over the long term. Without consistent funding, the program might face difficulties in maintaining essential resources and delivering a high-quality learning experience.

Lack of access to adequate facilities and resources, including updated learning materials or modernized learning environments, could potentially have a detrimental impact on the program's effectiveness and its value to participants.

The presence of other continuing health education programs could pose a challenge to attracting and retaining participants. To be competitive, the program must distinguish itself and offer added value to stand out in the market.

In Figure 4 (next page), a structure is represented, providing an organized view of the weak points in a schematic manner.

#### *The following potential avenues of study within "Workplace Health Promotion" curriculum could be investigated:*

The data presented emphasizes the significance of workplace health promotion and underscores the necessity of addressing this aspect within the current landscape of public health.

This presents an opportunity for the development and growth of continuing education programs in this field.

The course can foster collaboration among healthcare professionals and key stakeholders in both the public and private sectors, as well as with national and international organizations specializing in public health and health promotion.

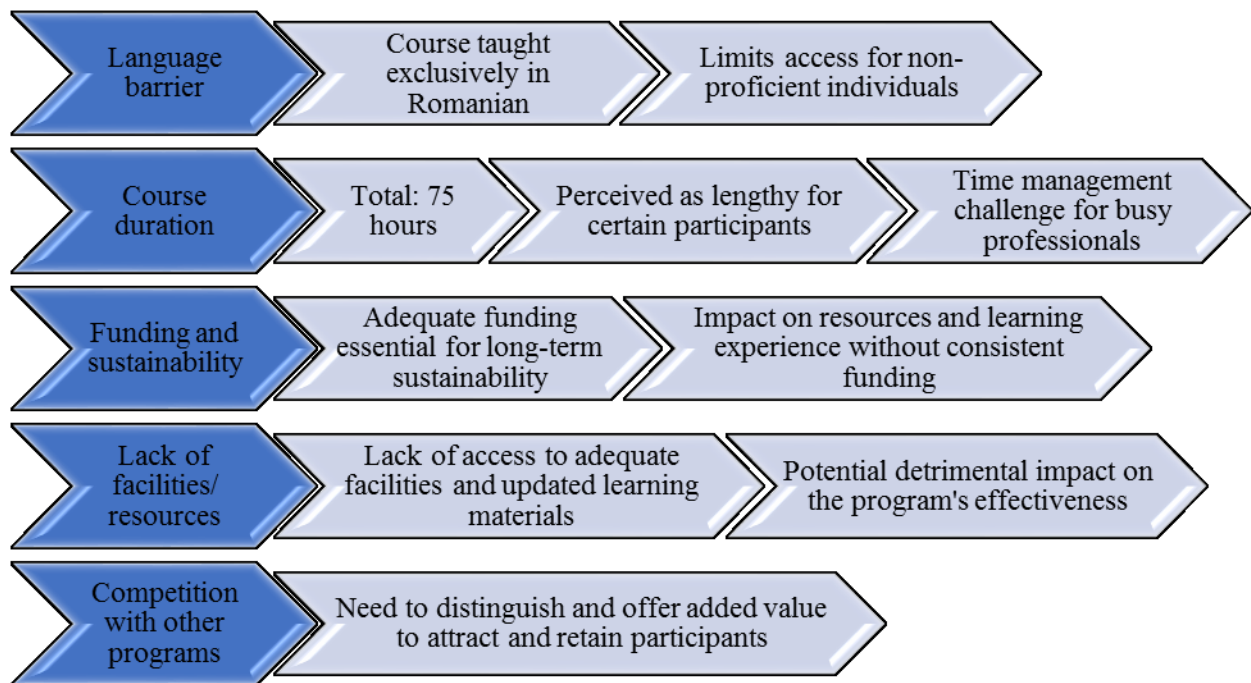
The program has the potential to identify and cultivate robust partnerships with pertinent organizations in the realm of health and workplace health promotion. This can yield advantages such as access to supplementary resources, experts, financial support, promotional opportunities, and heightened visibility for the program.

There is an opportunity to customize and tailor the program to align with the individual needs and interests of the participants. Through the collection and analysis of feedback and relevant data, the program can be enhanced and fine-tuned to ensure an optimal learning experience.

The program can capitalize on the current context, characterized by a growing emphasis on workplace health promotion. Opportunities to address health concerns and workplace stress can underscore the program's significance and relevance.

**Figure 4**

*Illustrating deficiencies in the "Workplace Health Promotion" curriculum*



*The core struggles recognized in the "Workplace Health Promotion" curriculum are:*

Insufficient funding for the development and execution of continuing medical education programs, including those in workplace health promotion, could indeed jeopardize the program's sustainability and ongoing existence in the future.

To maintain a high-quality course, it is imperative to have access to adequate resources, including current learning materials, updated learning facilities, and well-qualified teaching staff.

The absence of these resources or subpar working conditions can impact the program's effectiveness.

The presence of other continuing health education programs may create competition for participant enrollment. It is crucial to identify and highlight the program's strengths to set it apart and capture the interest of potential participants. Being proactive in this regard is essential.

The field of occupational health is continually evolving, with new discoveries and innovations that can impact the ongoing education requirements. It's crucial to maintain the program's relevance by consistently updating it to incorporate the latest information and practices in the field.

Limited interest from the Ministry of Health and a challenging business environment for academic partnerships and cooperation can impede the training of specialists.

The diminishing prominence of the field in the Republic of Moldova and a lack of motivation in selecting a specialization within the field can be discouraging factors.

## **Discussions**

Several significant challenges are evident. The absence of detailed information regarding program implementation, evaluation, and available resources can impede the comprehension and proper application of skills and knowledge in practice. Additionally, constraints related to limited financial resources and increasing inflation may restrict access to modern technologies and other essential learning tools. In the field of occupational health, norms and knowledge evolve swiftly with technological advancements and changes in the occupational environment. This presents a potential threat, as it becomes vital to ensure that curricula and subject content are regularly updated to encompass new discoveries and address the evolving demands of the field. Legislative and regulatory changes may also require constant updating of content and teaching methodologies (Carter, 2000; Boczowski, 2002).

There are significant opportunities available as well. Continuous program updating and development to align with the latest findings and practices in occupational health is one such opportunity. Given the intricacy of the discipline, adopting an interdisciplinary approach can aid in learning about occupational diseases and cultivating more comprehensive skills. Collaborating with other medical specialties and related disciplines can enhance the student experience. To ensure the program's sustainability, the teaching staff should concentrate on identifying and promoting the curriculum's strong aspects to pique the interest of potential participants. In this regard, the educational institution can develop strategies and offer an appealing and pertinent program (Persechino et al., 2016; Cegolon, Heymann, Xodo, & Lange, 2017).

The absence of a monitoring and evaluation system for graduates and their accomplishments can render it challenging to gauge the success of the training program. Additionally, the limited knowledge base and professional diversity can impede significant progress, particularly when there is a lack of coordinated efforts led by instructors and supported by students.

The field of occupational health is in a constant state of evolution, with new workplace threats often necessitating new specialized skills and knowledge. Therefore, it is imperative that we remain prepared to adapt the program to address these evolving challenges and anticipate future changes. Promoting student motivation to specialize in occupational health and ensuring that this choice is acknowledged and valued in the labor market are essential steps in attracting and retaining students in the program.

## Conclusions

- In general, the professional training of occupational health specialists in the Republic of Moldova ensures the development of the fundamental competencies required of occupational health professionals.
- The curriculum underscores the significance of the "Occupational Health" discipline in shaping the specific competencies required for the professional training program in public health.
- During the teaching of the subject "Occupational Medicine and Occupational Diseases," it is advisable to consider the unique context of each student's individual work, the subject's objectives and prerequisites, as well as the assessments and feedback provided by the instructor or peers.
- The SWOT analysis is a tool for evaluation that tries to emphasize both a topic's positive and negative elements as well as identify prospective possibilities and dangers, which is vital to keep in mind. The findings of this study can be used as a foundation for creating strategies and action plans in the area of occupational medicine to build on strengths, reduce weaknesses, take advantage of opportunities, and defend against threats.
- The continuing medical education program on "Workplace Health Promotion" exhibits notable strengths, including the enthusiasm and dedication of its participants, expertise, and flexibility. Nevertheless, it is not immune to weaknesses such as reliance on funding and resource limitations. The program also presents opportunities for collaboration and tailoring to specific needs, yet it must confront threats like competition, technological advancements, and financial constraints.
- The training program encounters substantial challenges and opportunities. By addressing these matters strategically and through cooperation with stakeholders, it is possible to guarantee the quality and pertinence of the program while enhancing its contribution to the education of occupational health specialists to meet the present and future demands of the labor market.

## Acknowledgements

The study was carried out with the support of the Moldovan-Turkish bilateral research and innovation project 22.80013.8007.1TR "Collaborative research and capacity building in occupational health and safety".

## References

1. Boczkowski, A. (2002). Kompetencje profesjonalne w zakresie orzecznictwa w medycynie pracy jako przedmiot kształcenia podyplomowego [Professional competences in certification in occupational medicine as a subject of postgraduate training]. *Med Pr*, 53(6), 501-5. Retrieved September 19, 2023, from [https://cybra.lodz.pl/Content/9559/Medycyna\\_Pracy\\_2002\\_T\\_53\\_nr\\_6\\_\(501-505\).pdf](https://cybra.lodz.pl/Content/9559/Medycyna_Pracy_2002_T_53_nr_6_(501-505).pdf)
2. Carter, T. (2000). The three faces of Occupational Medicine: printed paper, problems in practice, and professional purpose. *Occup Med (Lond)*, 50(7), 460-70. <https://doi.org/10.1093/occmed/50.7.460>

3. Cegolon, L., Heymann, WC., Xodo, C., & Lange, JH. (2017). Training in Occupational Medicine: Jurisprudential Malfunctions in the Italian System and European Perspectives. *Ann Ig*, 29(3), 197-205. <https://doi.org/10.7416/ai.2017.2147>
4. Cheptea, D., Deleu, R., Cebanu, S., Meșina, V., Ciobanu, E., Felszeghi, S., Körtesi, P., Popa, I., Villani, S. (2022). Analysis of the national legislative and regulatory framework in the field of occupational health and safety in the Republic of Moldova. *Multidisciplin ris tudom nyok*, 4, 137-143, <https://doi.org/10.35925/j.multi.2022.4.14>
5. Deleu, R., Meșina, V., & Russu, D. (2016). Promovarea dimensiunii europene  n educația pentru s nătate la locul de muncă [Promoting the European dimension in workplace health education]. *S nătate Publică, Economie și Management  n Medicină*, 3(67), 71-76. Retrieved September 19, 2023, from [https://ibn.idsi.md/vizualizare\\_articol/56134](https://ibn.idsi.md/vizualizare_articol/56134)
6. Deleu, R., Cebanu, S., & Cheptea, D. (2020). S nătatea ocupațională  n Republica Moldova: caracteristici și constr ngeri [Occupational health in the Republic of Moldova: characteristics and constraints]. *S nătate Publică, Management și Economie  n Medicină*, 5(87), 55-62. Retrieved September 19, 2023, from <https://cyberleninka.ru/article/n/s-n-tatea-ocupa-ional-n-republica-moldova-caracteristici-i-constr-nger-i>
7. Doupe, P., Faghmous, J., & Basu, S. (2019). Machine Learning for Health Services Researchers. *Value Health*, 22(7), 808-815. <https://doi.org/10.1016/j.jval.2019.02.012>
8. Gold, M. R. (2016). Critical Challenges in Making Health Services Research Relevant to Decision Makers. *Health Serv Res*, 51(1), 9-15. Retrieved September 19, 2023, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722205/>
9. Jelamschi, N., Guștiuc, V., Bahnarel, I., Friptuleac, G., Stincă, K., Gherciu, S., Bucata, E., Deleu, R., P nzaru, I. (2022). S nătatea ocupațională, siguranță chimică și toxicologie: protecția s nătății – pentru un viitor sigur [Occupational health, chemical safety and toxicology: health protection – for a safe future]. *Arta Medica*, 4(85-S), 6-14. <https://doi.org/10.5281/zenodo.7328328>
10. Persechino, B., Fontana, L., Buresti, G., Rondinone, BM., Laurano, P., Imbriani, M., & Iavicoli, S. (2016). Professional activity, information demands, training and updating needs of occupational medicine physicians in Italy: National survey. *Int J Occup Med Environ Health*, 29(5), 837-58. <https://dx.doi.org/10.13075/ijomeh.1896.00736>