DOCTORAL EDUCATION AND PRACTICE IN PUBLIC HEALTH AND SOCIAL SCIENCES:

International Perspectives

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PART 1.

Public Health and Social Sciences: Doctoral Education

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BEST PRACTICE IN EVALUATION OF A DOCTORAL SCHOOL – RECOMMENDATIONS FOR A CAPACITY BUILDING PROJECT

1. INTRODUCTION

The present article offers information from the literature regarding the criteria, indicators and processes for the evaluation and quality assurance of doctoral schools, as well as an example of the process, criteria and indicators used for the evaluation of doctoral schools in Romania.

Doctoral education is the third cycle of studies recognized in the Bologna Process (Bogle, Shykoff, & von Bülow, 2016). The evaluation of doctoral schools is an essential process conducted in many countries, therefore the information about the evaluation process, criteria and indicators is addressed in many articles. The evaluation of doctoral schools is an important and useful process as it offers information about the PhD students' and the doctoral schools` performance, if the goals of the doctoral schools are achieved and if the doctoral schools fulfill the needs of the society. Also, the evaluation process is important for the improvement of the activity performed by the doctoral schools and offers a basis for resource allocation (Ketefian, 2001). While every doctoral school is different and having specific aspects, the evaluation criteria, indicators and process applied may be the same (Ketefian, 2001).

Quality assurance is also important in promoting the doctoral programme and improving the quality of doctoral education. Quality assurance refers to several processes such as establishing expectations and principles of the doctoral programme, developing scrutiny processes to assess if the expectations are achieved, evaluating quality indicators and providing feedback for improvement of the doctoral programme (Bogle, Shykoff, & von Bülow, 2016).

2. CRITERIA AND PROCESS OF EVALUATION OF DOCTORAL SCHOOLS

2.1 Criteria and indicators of evaluation of doctoral schools

Several criteria and indicators of quality evaluation of doctoral schools were identified in the literature. In general, these are related to the faculty, resources, students, and research aspects (Ketefian, 2001). Therefore, several evaluation criteria and indicators related to the faculty include the staff qualifications, the diversity of their intellectual perspectives, reputation, being engaged in research and providing mentorship to the doctoral students by offering courses and contributing to the improvement of the doctoral students' skills (Ketefian, 2001; Gilbert, 2004; Byrne, Jørgensen, & Loukkola, 2013). Therefore, in terms of research, an indicator that is evaluated in several European Universities is the quality and quantity of scientific publications (Byrne, Jørgensen, & Loukkola, 2013; Bogle, Shykoff, & von Bülow, 2016).

Another indicator that is evaluated is the candidate-supervisor relationship and the satisfaction of both the supervisor and the doctoral student (Byrne, Jørgensen, & Loukkola, 2013; Bogle, Shykoff, & von Bülow, 2016). Moreover, the satisfaction of the doctoral graduates regarding the PhD programme and their present job was another identified evaluation indicator (Bogle, Shykoff, & von Bülow, 2016).

Doctoral schools may also be evaluated in terms of the resources such as human, financial and technical resources and if enough and diverse resources are available to students and faculty staff for the achievement of the doctoral school's goals (Ketefian, 2001; Gilbert, 2004; Byrne, Jørgensen, & Loukkola, 2013; Bogle, Shykoff, & von Bülow, 2016). Other indicators of evaluation related to the doctoral program are its impact on society, the innovation or relations with the private sector and the level of internationalisation of the doctoral education (Byrne, Jørgensen, & Loukkola, 2013; Bogle, Shykoff, & von Bülow, 2016). Furthermore, a doctoral school may be evaluated based on indicators such as the average number of PhD theses defended in the last three years and number of supervisors that supervised a PhD in the last four years, as well as the average number of candidates for each supervisor (Bogle, Shykoff, & von Bülow, 2016). Moreover, the quality of the PhD theses and of the doctoral school's curriculum and courses may also be evaluated (Ketefian, 2001).

More indicators that can be addressed in the evaluation of a doctoral school are related to the students` selection, the students' diversity and qualifications as students who apply to the program are diverse and meet the admission criteria of the program (Ketefian, 2001). Other criteria and indicators for the evaluation of doctoral schools are the training that students receive in research and in their PhD studies if students contribute as authors to research articles and have the possibility to obtain awards. Also, indicators to evaluate the activity of the doctoral students are represented by reports, papers and presentations produced (Bogle, Shykoff, & von Bülow, 2016). More evaluation criteria and indicators related to students are the graduation rates and the necessary time for students to graduate their doctoral studies (Ketefian, 2001; Gilbert, 2004; Byrne, Jørgensen, & Loukkola, 2013; Bogle, Shykoff, & von Bülow, 2016). Furthermore, another evaluation indicator that was present in the literature for several European Universities was the employment rate and the careers of the PhD graduates (Byrne, Jørgensen, & Loukkola, 2013; Bogle, Shykoff, & von Bülow, 2016).

2.2 Process of evaluation of doctoral schools

There are several methods implemented in different Universities to evaluate their doctoral schools based on the criteria and evaluation indicators. The evaluation can be internal or external. Therefore, a study identified that the doctoral programmes from the School of Nursing at the University of Michigan are evaluated every five years according to the criteria, policies and procedures adopted and approved by the faculty. Moreover, an annual review of the faculty is conducted every year to evaluate if the faculty contribute to the University mission, to research, teaching and service (Ketefian, 2001).

Surveys are another method in which criteria and indicators can be evaluated related to doctoral education. A study identified that the satisfaction of doctoral graduates regarding doctoral education and their present job was evaluated using a survey (Bogle, Shykoff, & von Bülow, 2016). The satisfaction surveys are applied in several Universities from Europe and address the doctoral education, the administrative procedures, as well as the aspects that need improvement (Bogle, Shykoff, & von Bülow, 2016).

Some Universities developed a quality assurance programme for ensuring that quality standards in doctoral education are achieved by periodically evaluating these standards. Data is collected through surveys and faculties develop plans for achieving the standards. These standards are evaluated by a committee formed of the representatives of the Council for Graduate Studies, the Graduate Academy and the Senate (Bogle, Shykoff, & von Bülow, 2016). Therefore, Imperial College London evaluates its doctoral education by conducting period reviews in its departments every five to six years. The group of reviewers meets with relevant staff and students to evaluate the quality of the doctoral education. Then, the results of the evaluation visit are reported and recommendations for improvement are made (Bogle, Shykoff, & von Bülow, 2016).

Besides the internal evaluation, external evaluation is conducted to assess the quality of the doctoral education and help the doctoral schools to improve or modify their programme (Byrne, Jørgensen, & Loukkola, 2013). Regarding the external evaluation, several doctoral schools reported that the quality assurance was based on the institutional accreditation, evaluation, or audit (Byrne, Jørgensen, & Loukkola, 2013; Bogle, Shykoff, & von Bülow, 2016).

3. DOCTORAL EDUCATION IN ROMANIA

According to the Bologna education process, in Romania, doctoral education represents the third cycle of university studies. The PhD studies aim to develop specific and transversal competencies among students, being organized under doctoral schools which function based on specific regulations developed by each doctoral school according to the requirements of the law (Ministerul Educatiei, n.d).

4. CRITERIA AND PROCESS OF EVALUATION OF DOCTORAL SCHOOLS IN ROMANIA

4.1 Criteria and indicators of evaluation of doctoral schools

The domains that are evaluated for the accreditation and evaluation of a doctoral school are institutional capacity, educational effectiveness, and quality management. For the institutional capacity domain, several criteria are evaluated such as the institutional, administrative and management structures, resources and the use of research infrastructure and the human resources and the institutional capacity to attract external human resource and from outside the country (Ministerul Educației Naționale și Cercetării Științifice, 2020).

The domain educational effectiveness includes criteria such as the content of the PhD studies programme, the results of learning and the research activity, the employability and the financial activity of the organization. The quality management domain encompasses criteria such as strategies and procedures for the quality assurance, procedures for the initiation, monitoring and periodical review of the program and of the performed activities, objective and transparent procedures for the evaluation of the results of preparing the doctoral degree, procedures of periodic evaluation of the professors and the accessibility of the resources. Besides these criteria, the quality management domain also includes the existence of a database that is systematically updated and which refers to the internal quality assurance, as well as the transparency of the information of public interest, the functionality of the structures for the quality assurance of education and the

accuracy of the reporting which are based on the legislation (Ministerul Educației Naționale și Cercetării Științifice, 2020).

For each domain and criteria, several standards and performance indicators are evaluated. For example, for the institutional capacity domain and for the criteria resources and the use of research infrastructure, a performance indicator is the availability of computers, desks, labs or research center according to the domain of the doctoral education, as well as access of the students to the library and to international databases. For the criteria related to the human resources and the institutional capacity to attract external human resources and from outside the country, a performance indicator is the number of doctoral students and postdoctoral researchers employed in research projects obtained through national, international competitions or with the business environment, by reference to the total number of doctoral students and postdoctoral researchers from the doctoral school. Also, for the results of learning and the research activity criteria, a performance indicator is the quality of the doctoral theses defended in the last 5 years (Ministerul Educației Naționale și Cercetării Științifice, 2020).

4.2 Process of evaluation of doctoral schools

The authorization, accreditation and evaluation of the doctoral schools, for each PhD domain, is performed by the Romanian Agency for Quality Assurance in Higher Education (ARACIS) or by another agency that performs quality assurance and that is registered in the European Register for Quality Assurance in Higher Education (EQAR). For the accreditation, every doctoral school is individually evaluated every 5 years, evaluating the performance of the doctoral school and of the institution to which the doctoral school belongs (Ministerul Educației Naționale și Cercetării Științifice, 2020). The authorization, accreditation and periodic evaluation of a doctoral school is performed for each domain based on the internal and external evaluation reports (Ministerul Educației Naționale și Cercetării Științifice, 2020).

The authorization of a doctoral school allows the doctoral school to organize admission to PhD studies and to conduct the PhD studies. The accreditation of a doctoral school allows the school to organize admission, to conduct the PhD studies and organize the final exams such as public defenses of doctoral theses, as well as the possibility to issue diplomas, certificates and other documents recognized by the Ministry of National Education and Scientific Research (Ministerul Educației Naționale și Cercetării Științifice, 2020).

The external evaluation of doctoral schools is based on the National Education Law and other legislation such as the Code of doctoral studies and the assurance of the quality of education (AGENŢIA ROMÂNĂ DE ASIGURARE A CALITĂŢII ÎN ÎNVĂŢĂMÂNTUL SUPERIOR, 2020).

The main stages of the process of external evaluation of doctoral schools conducted by ARACIS are the initiation of the evaluation process, the submission

of the internal evaluation reports by the doctoral schools, the establishment by ARACIS of the commission of evaluators, the analysis of the internal evaluation report and request for additional information if necessary, scheduling the date for the evaluation visit, conducting the evaluation visit, developing the external evaluation report and sending the report to the institution which is organizing the doctoral studies, waiting for an answer from the institution, analysing the evaluation report in the Department of External Evaluation and communicating the final decision made by ARACIS (AGENŢIA ROMÂNĂ DE ASIGURARE A CALITĂŢII ÎN ÎNVĂŢĂMÂNTUL SUPERIOR, 2020).

Therefore, the process of external evaluation starts with the institution that organizes the doctoral education submitting to ARACIS an application for the external evaluation of the accredited doctoral schools. The second step in the process consists of the submission of the internal evaluation reports. In maximum 90 days since the beginning of the process, the institution must submit to ARACIS the internal evaluation reports for each doctoral school. Then, as a next step, ARACIS establishes the commission of expert evaluators that will evaluate the doctoral schools (AGENŢIA ROMÂNĂ DE ASIGURARE A CALITĂŢII ÎN ÎNVĂŢĂMÂNTUL SUPERIOR, 2020).

The fourth step consists in the analysis of the internal evaluation report and in the request of additional information, if necessary, by the commission of expert evaluators. Then, the date for the evaluation visit of the commission of expert evaluators is decided and the visit to the institution is conducted. The commission conducts the visit of evaluation which lasts 2-4 days at the institution evaluating the information presented in the internal evaluation report and the implementation of the criteria, standards and performance indicators which are established by law. During the visit, the commission has meetings with faculty staff, students and other relevant actors (AGENŢIA ROMÂNĂ DE ASIGURARE A CALITĂŢII ÎN ÎNVĂŢĂMÂNTUL SUPERIOR, 2020).

After the visit, the external evaluation report is written. The expert evaluators submit this report to ARACIS, which encompasses their findings regarding the implementation of the criteria, standards and performance indicators at the institutions that organizes the doctoral education, as well as their recommendations for improvement. After this, the external evaluation report is sent to the institution which organizes the doctoral education, and the institution must respond. This answer can include observations regarding the external evaluation report, including any possible mistakes (AGENŢIA ROMÂNĂ DE ASIGURARE A CALITĂŢII ÎN ÎNVĂŢĂMÂNTUL SUPERIOR, 2020).

The Department of External Evaluation of ARACIS integrates the answer of the institution and produces the final version of the report. Then, a final decision is taken by ARACIS regarding the maintenance or withdrawal of the accreditation for the doctoral school. The withdrawal of the accreditation is implemented if the quality standards are not achieved by the doctoral school. In case the institution

does not agree with the decision of ARACIS, it can request another evaluation visit. If after the second evaluation visit, the criteria and standards are still not achieved, the accreditation of the doctoral school is withdrawn and the doctoral school cannot enroll new students (AGENŢIA ROMÂNĂ DE ASIGURARE A CALITĂŢII ÎN ÎNVĂŢĂMÂNTUL SUPERIOR, 2020).

CONCLUSION

These criteria, indicators, and processes of evaluation of doctoral education that are conducted in several countries and several institutions offering doctoral education are important and useful for ensuring the quality of the programmes and further improving the doctoral education. It is recommended that the new doctoral schools developed through the DPPHSS project adopt their own set of evaluation criteria, in accordance with, but not limited to the national legislation.

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BEST PRACTICE IN EVALUATION OF A DOCTORAL SCHOOL-RECOMMENDATIONS FOR A CAPACITY BUILDING PROJECT

Summary

The evaluation of doctoral schools is important in ensuring that the quality standards and criteria are achieved. Several criteria and indicators of quality evaluation of doctoral schools identified in the literature are staff qualifications, the diversity of their intellectual perspectives, reputation, being engaged in research and providing mentorship to the doctoral students, the satisfaction of students and supervisor, the resources of the doctoral school, quality of the program curriculum and courses, impact on society and innovation, students diversity and qualifications, the engagement of them in research, the time of completion of PhD and employability. These criteria and indicators are evaluated at an internal and external level through several quality programmes implemented, using surveys and recommendations are provided for the improvement of the doctoral education. The external evaluation is implemented through the process of accreditation, evaluation and audit which is performed in Romania as well for the evaluation of the doctoral schools. All these processes and criteria are useful to assure quality and improve doctoral education.

Keywords: doctoral school, evaluation, criteria.

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THE DOCTORAL PROGRAMME IN PUBLIC HEALTH AND SOCIAL SCIENCES

Many organisations have been established in European region to help with developing and assuring quality in public health education. Among them ASPHER (Association of the School of Public Health in European Region) has established the APHEA (Agency for Public Health Evaluation Accreditation) with focus on the accreditation of Bachelor, Masters and PhD Programmes in Public Health. The experience gained from the activities carried on by the APHEA clearly indicates that such programs are a solid way to build a worldwide community of public health experts. The Erasmus + project, Doctoral programme in Public Health and Social Science' (DPPHSS) is undoubtedly integral part of the effort and represents a unique opportunity to discuss and upgrade the quality assurance for public health education, training and research internationally. The comments in these documents are based on reports on Doctoral Education prepared by two partner Universities in Armenia (YSMU, YSU) and two partner Universities in Georgia (TSU, UG) and notes made by representatives of four European Universities during the presentations at the Consortium kick-off meeting in Tbilisi (Georgia) on February 16 – 17, 2019.

ASPHER
The Association of Schools of Public Health in the European Region

The evaluation has been carried on focusing to two areas of the PhD programme activities:

- the organisational and operative area
    - the area of personal, scientific, student and administrative qualities.

The PhD Programmes of the four Universities in Armenia and Georgia are deeply rooted in the historical background values forming the firm base for cultural, social and economic development of the country. The internationalisation that entered the life of the universities in the recent period has revealed a bi-directional impetus on the quality of education and academic outcomes and thus has been gaining wide attention. The Universities have accepted the three levels system of university education based on Bologna declaration: Bachelor, Master and PhD. The international cooperation has reached a global dimension significantly contributing to Universities teaching, and research potential. The PhD Programmes are well organised, based on the up-today knowledge database of public health and related scientific disciplines and are supported by the organisational schemes with clearly defined time frames, management, credit systems and goals. As public health has been grounded in science, it makes it most unique among medical and physical sciences that help us to understand the biology of humans, microorganisms, vectors and environmental risk factors. The recent period has been characterised by the entry of social sciences of anthropology, sociology, psychology into the public health sphere thus greatly enriching and supplementing the scientific profile of public health. The present situation in the consortium of the Universities clearly documents the full understanding of this trend as social sciences are getting into appropriate position. The core education in public health thus stands on these scientific pillars:

- Epidemiology (infectious, non-infectious, environmental)
- Environmental Health (occupational health, hygiene, toxicology, risk factors etc.)
- Biostatistics
- Behavioural Sciences (sociology, psychology, anthropology, culturology)
- Economy and Management Sciences in Health Care.

As already mentioned above, the organisational and operative area of the PhD programmes in the Consortium appear to be well established while the quality content of personal, methodical and institutional support that is the important component of the successful outcome of the PhD Programme reveals some space for upgrading. This is not a negative phenomenon, it inclines more to reflect the development in the society with impact of the economical, ecological, cultural and social changes.

There are some questions (Q.) and issues (Prerequisites P.) listed below that help to obtain a view corresponding with the reality of successful completion of the programme. The PhD Programme is a strictly individual, primarily focused to the research methodology and production of outcomes measurable by the scientometric criteria.

The original contribution to the body of knowledge in Public Health is the ultimate goal of every PhD Programme.

In view of the universal competencies for public health professional this is an extraordinary challenging task for every PhD student. Therefore the personal qualities of the student and competencies of university staff that all together form the human resources deserve an appropriate attention.

A/ Student

Q. What is student`s motivation for joining the PhD programme?

Q. What are the opportunities to continue on her/his way of public health scientist after successful completion of the Programme?

Q. What would be a research proposal pertinent to the PhD Programme?

Q. What is postgraduate candidate`s comprehension of the differences between, research and survey, monitoring and surveillance, building up a BRC and data banks?

Provided there are no clear answers and comprehension of the methodological issues anchored in these questions, the successful completion of the PhD programme by student and its potential positive values for society are in jeopardy.

B/ Supervisor

Postgraduate supervision is a key element in the quality outcomes of the PhD Programmes. Student – supervisor environment is based on the inclusive and participatory principle. The supervisor position in the PhD programme is most challenging one from the point of view of university, society and student's personal ambitions and expectations. Several questions and appropriate positive answers may help to alleviate the potential risk of failure.

Q. How many PhD students successfully completed PhD Programme under his/her leadership?

Q. How productive, measured by scientometric criteria, is the supervisor?

Q. Is the supervisor involved in too many projects and activities in other academic institutions thus having limited time to establish conducive student-supervisor environment?

Q. Have the formulation of hypothesis, research questions and study design been extensively consulted with the student?

P. The minimal educational level of the supervisor expressed by teaching and research position in academic institution should be the „Associate professor" or „ Independent scientist" in Public Health or related fields.

C/ Committee members

P. All three committees, the entry interview, the state exams and defence of the thesis should be composed of peer members close by professional orientation to the topic of the PhD Programme.

D/ Research Integrity

The issues of trustworthiness and authenticity are very sensitive area and failure to keep their high standard can damage the image of University, the programme and all stakeholders.

The most common cases are related to falsification and fabrication of data, plagiarism and break of ethical rules. Not less damaging however are forgotten acknowledgement of collaboration, coauthorship, intellectual properties rights and grant related management. Pour research integrity is also associated with negative consequences that can appear later in the local, regional and government authorities decisions and policies.

E/ Thesis

P. The students submits thesis together with the list of publications related to the research carried on during the PhD programme as well as evaluation report of the supervisor.

The minimum three scientific reprints of in extenso papers published in the scientific journals listed by the world databases (Web of Sciences, CC, SCOPUS, MEDLINE) are submitted also. The letter from the Editor`s office confirming that the manuscript has been accepted for publication in the journal may substitute the reprint. However at present the „condicio sine qua non“ is not strict provided the student presents additional documents (abstracts, papers from Proceedings, books chapters etc.) The committee nominated by Scientific Board of the University evaluates the quality of the publications and presentations and recommends or rejects the thesis for defence.

F/Reviewers

P. The reviewers are approved by the Scientific Board of the Faculty and meet the minimal criteria on the academic professional path „Associate Professor“ and „PhD“ and a solid record of scientific publications in peer reviewed journals.

At the end, a successful PhD Programme will raise the expert in a field of Public health who will be able by applying the principles of Evidence Based Public Health:

1. to identify public health problem that deserves scientific solution,

2. to formulate hypothesis,
3. to design the methodical approach suitable for solution of the problem,
4. to collect relevant data and information for the solution,
5. to analyse the data, applying statistical methods if necessary,
6. to validate and/or disprove (reject) the hypothesis,
7. to summarize the results of the study and make a proposal for application of the new knowledge brought by the study.

Summarizing the issues discussed in this document I would like to stress that they are not formulated as „one size fits for all". They are open for discussion at the round table of Consortium peers with an ultimate goal to reach a consensus leading to higher quality of University education. Discussion that will respect the cultural, social and economic values of all partners will be undoubting effective tool to reach the common goal.

Finally I would like to touch some other issues that are not less important for further progress in quality of University education.

There is one issue that is necessary to discuss in association with the position of the sociology in Public Health. Social sciences of anthropology, sociology and psychology have significantly contributed to our understanding of human culture and behaviour influencing health of man. And therefore the sociology, particularly the social psychology is integral part of Public Health Programmes as a pillar among Behavioural sciences in many Universities. This association is mutually beneficial. While the epidemiology, biostatistics and environmental sciences are moving closer towards the quantitative sciences through the development of methodology, the social sciences are perceived more as softer sciences. The association helps to pull the sociology closer to exact physical and biological sciences without diminishing or loosing its autonomous position among public health disciplines. In this context we have to keep in mind the distinction between social sciences and social services. While the first ones stand on the strict exact objectification of the risk factors, mechanisms and processes governing the existence of the society, the second ones primarily apply and manage the transferable knowledge to achieve the society well-being. In the common effort they all deal with the problems of population, however in this context the sociology as a science in Public Health is primarily focused to bringing the new original knowledge. The separation of the sociology from Public Health Programme would be detrimal to further scientific progress for both.

There is other issue deserving a discussion. It is the association of the Research project funded by the external grant agency and the PhD Programme. Nowdays to carry on top quality research deserves a lot of investment in money that are available primary through the Grant Agencies both international and national. Some University have also established intramural research agencies particularly as research start-ups. In the research project funded by the Grant Agency, the PhD student finds more productive environment both for methodical area of his

own program and for the personal education in research methodology. Thus the production of research projects for Grant Agency both international and national should be the priority in the educational university programs.

The other issue related to quality of university education is the internationalization of the Programmes including the PhD one. Starting with English modul of PhD Programme means to carry on the programme from „entry interview, through disertation exams, defence of the thesis, reviewers comments" in English language. In every committee at least one member should come from the country and/or University residing in other country than the country of the domicile university. The international experience from universities where orientation of the PhD programme has been carried on in this module fully supports this improvement-led approach that has an impact on both quality assurance and quality improvement of the PhD programme.

The issues mentioned above belong to different categories of the public health infrastructure being in close association with the human, organizational, informational, and financial resources. They all reveal a strong impact on the quality of PhD programme. Therefore the discussion on the ways to improvement and to higher quality of PhD programme by all Universities from partners countries is the rational tool and much needed to reach the goal of the Erasmus + project.

THE DOCTORAL PROGRAMME IN PUBLIC HEALTH AND SOCIAL SCIENCES

SUMMARY

This paper briefly outlines the concept and strategies of the PhD programmes that universities of the consortium, which has been created in the framework of Erasmus+ project „Doctoral programme in Public Health and Social Science", have accepted and are encouraged for further development into the level compatible with European standard. This concerted effort has been motivated not only by the pressure of the national economies that are increasingly becoming knowledge-driven but also by the social status of an individual university educated person that society is preferably accepting. Qualities of the university educated citizens reflect the quality of community, society, region and nation. Thus the initiative in developing and assuring quality in public health education in Europe is also relevant for fulfilling the expectations of the WHO "Health for All" programme.

Keywords: concept of doctoral programme, public health, social sciences, European standard.

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PHD PROGRAMS IN SOCIAL SCIENCES IN GEORGIA

The Law on Higher Education, passed on December 21, 2004, changed the Soviet-era graduate degrees system and introduced a three-tier education system [Bachelor-Master-Doctoral studies] (Law of Georgia on Higher Educaiton, 2004). The main political objective of this change was country advancement in the process of European integration.. In the case of higher education, this meant membership in the Bologna Process. Georgia was admitted as a member of the Bologna Process at the Bergen Conference in May 2005. The political objective of the reformist government was achieved. Admission to the Bologna Process influenced positively higher education, especially in terms of internationalization (Glonti & Chitashvili, 2007). However, the quality of higher education in Georgia remain challenging and cannot be improved solely through activities consistent with political goals (Chakhaia & Bregvadze, 2018; Chitashvili, 2020).

As any alteration, reforms generally are accompanied by resistance and doubt, and modernization is a painful process in general.[1] On the one hand, such visible or hidden resistance from the academy, and on the other hand, the obstinacy of the ministry and other official structures avoiding public discussions on urgent and hot issues of improvement of higher education damages development of policy document and/or introduction of optimal models, hampers academic freedom and quality of education.

[1] The voices of those opponents who preferred old system (Specialist Diploma – Aspirantura/ Post-graduate Studies – Candidate of Sciences – Doctor of Science) and believed that it provided highly qualified labourforce [Specialist Diploma] or scientific potential [Scientific degrees] are less and less, but still heard even today. The result of their informal influence is that the standard concept in Western practice of the Doctor of Philosophy with reference to the specialty [E.g. PhD in Psychology] in Georgian is called Academic Doctor of Psychology. This emphasizes that this person is not a doctor of sciences, i.e. a holder of the highest degree/competence in his/her field.

During the course of reforms the third cycle of higher education, doctoral (PhD) studies, has been affected the most.

The new law, passed in 2004, established a transitional period for full time and part-time PhD Studnets as well for affiliated students of post graduate studies (aspiranture) by the end of 2007 (Law of Georgia on Higher Educaiton, 2004), During this term they either had to complete their PhD studies and defend dissertation thesis, or move on to new PhD programs, in which case, the faculty according to own regulations would had accepted the research work, previously performed by them, and/or re-enroll in new PhD programs for completion of already ongoing work in accordance with new regulations. The law said that state was supposed to start funding of the PhD studies from December 2007.[1]

In contrast to other specialties (mathematics, physics, natural sciences in general, as well as some engineering and technological directions, especially related to aerospace and aeronautics, nuclear research and military sciences) that were on a level with world scientific achievements, social sciences were underdeveloped in Soviet Union by the time of its collapse. (Kojevnikov, 2008)

The ideological press began to emerge in late 1920s, and the methodological framework defining the social sciences was limited to Marxism-Leninism philosophy. According to Barry Katz:

> *""'within the academic community. Scholarly contact had come nearly to an end even before the war, as Soviet scientific journals discontinued the use of Western languages and the flow of publications from the USSR was radically constricted. The onset of war*[2] *brought scholarly exchange almost to a halt.* (Katz, 2014, გვ. 139)

In their article "Social and Behavioral Sciences under Dictatorship", published in 2015 Olessia Kirtchik and Mariana Heredia (Kirtchik & Heredia, 2015) indicate the changes that the social sciences are undergoing under conditions of totalitarianism and authoritarianism as forms of government. These imply to limitations in content, form, research area and conclusions. The authors mention that in the case of totalitarianism [Fascist and Stalinist regimes, as well as examples of Franco, Spain and Salazar, Portugal are discussed] actually any opinion that does not coincide with the prevailing, state mainstream discourseis prohibited. Incase of disobedience authors at least will have to leave from the place of their work and/or

[1] The funding by the grant system for PhD students was launched only in 2013. The grant competition for PhD students was announced by the Shota Rustaveli National Science Foundation and in total overall 80 PhD students were funded. This competition is held to this day and is the main source of funding of PhD students. In all other cases the PhD students pay the tuition fee by themselves. Further analysis of this issue is beyond the scope of this article, and hereby I will just say that PhD funding in the country remains a serious and unresolved problem.

[2] It refers to the Second World War

even threaten thier life [there are many such examples, like the repressions of the 1930s and the declaration of certain sciences [sociology, psychoanalysis, genetics, etc] as pseudosciences].

The 'Cultural Revolution' imposed by Stalin ended existing a relative pluralism of the social and behavioral sciences in the late 1920s and completely redefined the intellectual and institutional landscape of social sciences. In particular, there was a complete unification within the framework of historical materialism. The ideology of Marxist–Leninist doctrine and social class principle becomes the main criteria of scientific truth and objectivity. As a consequence, the development of social sciences was simply stopped in the Soviet Union for a several decades. For example, within the framework of a unified curriculum of higher education, psychology was part of the ideology of society according to the historical materialism classification. However, it should also be noted that this ideological framing affected the strong school of economics the most and ended with a complete repression of it. . (Kirtchik & Heredia, 2015; Rudman, 1964) Novertheless, some other directions in social sciences sparsely, but still were developing and even there were some which attracted the attention of Western colleagues – the Marxist history of science by Boris Hessen, the activity theory of Alexei N. Leontiev and the cultural–historical theory of Lev Vygotsky in psychology. (Kirtchik O., Heredia M. 2015.).

Kirtchik and Heredia belive that, unlike totalitarianism, authoritarian regimes provide more freedom to the development of the social sciences. This refers to their institutionalization and prioritizing applied aspects of social sciences. Likewise sociology and applied economy were admitted under Khrushchev "Ottepeel Thaw" policy.

The general trends of the development of social sciences under the conditions of ideological, socialist regime, can be reduced to several following features: ideological alignment to Marxism–Leninism under control of censorship; political guidance and research of allowed objects and theories; hesitations between practical needs (rationalization of government) and fear of being considered of dissidence; prevalence of technocratic and applied orientations of social sciences; a relative isolation and limitation in theoretical activity. [Kirtchik O., Heredia M. 2015.]

Development of social sciences in Georgia completely repeats the developmental path determined by the Soviet regime.In Georgia, the first university was founded in 1918 and the foundation for scientific research is laid,. Country and consequently University were cut from the Western world and the development of scientific thought in the late 1920s. Gorbachov's perestroika opened the iron curtain and explorations were allowed and research was more or less become free academic enterprise. . However, it was only after the dissolution of Soviet Union and late late 1990s that social science managed to fully return on the stage. .[3].

[3] The events after the declaration of independence [1991], the civil war, the economic crisis/

For that period social sciences face lack of theoretical and systematic knowledge, unfamiliarity with teaching and research methodologies, focusing only on quantitative research methods[1] and, most importantly, alteration of the conceptual framework. Diversity of theoretical and methodological frameworks in social sciences without any limitations or ideological framework became 'legal' and it was visible development and enrichment with further research and internationalization.

The institutional structure of the social sciences in the late 1990s used to be still part of the Soviet legacy. Instead of PhD Studies, the "aspiranture" works in higher educational institutions (HEIs) and in the field-specific research institutes of the Georgian Academy of Sciences. The connection between them [HEIs and Research Institutes of the Academy] was insignificant or almost absent. Open discussions, reviewing, collaborative conferences and workshops are quite rare. The departments of social sciences at HEIs and research institutes were following type of isolation politics and more and more were obsessed by sole, single instituion performance, and did not bother about any external evaluation at all. This was a kind of the Soviet legacy in action, obviously transformed, with closed, confined space where certain criteria can be used to evaluate new research. As for its relevance to an external evaluator, did not matter in principle.

The reformist government, which took office in November 2003 with goal of integrating into the European space, viewed the Bologna process as one of the ways and means of this integration, as well as the possibility of saving resources in the field of higher education and science. According to the law of 2004, doctoral studies can only be implemented in higher educational institutions, representing the highest academic degree, last cycle of academic education. The new law eliminated existing practice of completing doctoral studies at the Academy of Sciences. Scientific councils at research institutes that awarded academic degrees were abolished in 2007, and only higher educational institutions remained with the authority to award doctoral qualification.

Higher education institutions, on the other hand, faced a severe lack scope of knowledge, in social sciences. Disciplines such as political science and international relations, security studies, gender, cultural studies, social and cultural anthropology, migration, regional and area studies and otherswere at the nascent stage. It should be mentioned that in Georgia, exception was psychology, existing continuously since 1918. Under Stalinism in the 1950s, it was even threatened with

complete collapse, the failure of state institutions and much more turned Georgia into a dysfunctional country where the relevance of education and science was completely degraded. And this was not caused by dictatorship or authoritarian regime, but by the crisis associated to social disintegration and country's struggle for political survival. It should be highlighted that in 1992 the universities were given full autonomy to function. This unprecedented freedom had not been really used for the science development. (Chitashvili, 2020)

[1] However, even this direction needed to be developed further and overcome gaps in scope knowledge existed in present.

closure due to main reasons – first, Georgian school of psychology was based on the Dimitri Uznadze's original theory [Theory of Set] and used as an explanatory model for human behavior and second, only formally follow the legitimated and normative rules of Soviet psychology.,and hence, it was considered as a marginal direction. However, this does not mean that things were going well in psychology, and that it was not affected by the dominance of the ideological press prevailing in the social sciences.

A good example of knowledge existed in the social sciences and its application is that the dictionary of social sciences terms first was published only in 2004 funded by the grant of the Open Society Georgia, within the Social Science Support Program.[2]

The first concept paper on the development of doctoral programs was developed in 2005 within the Center for Social Sciences project supporting development of social sciences at Ivane Javakhishvili Tbilisi State University. (Glonti, 2005). The concept paper aimed s to serve as a kind of guide for universities for the development of new type of PhD programs instead of "aspirantures". The first such PhD was

launched at the newly established Faculty of Social and Political Sciences of Tbilisi State University.[3]

It should be noted that there were no special regulations for the opening of PhD programs. Higher educational institutions could carry out PhD studies within their competence. Accreditation of PhD programs by National Center For Educational Quality Enhancement has been started only since 2011 (Law of Georgia on Higher Educaiton, 2004). The accreditation of the programs was preceded by recent university authorization process in 2010, when universities were classified as research and teaching universities and PhD studies were conducted at research universities.

Accreditation of PhD programs has brought hope that, while approving PhD programs, accreditation would be focused on such important issues as achieving the necessary competencies for the level of doctoral studies [level 8], in accordance to the Georgian National Qualification Framework (QNF Georgia), for example "scope of Knowledge in the field of study, facts, principles, theories, theoretical and

[2] Dictionary of Social and Political Terms [2004]. Publishing house "Logos". See the updated version of this dictionary at http://dictionary.css.ge/

[3] The Faculty of Social and Political Sciences was founded in 2005. The new faculty included formal orThat Faculty of Psychology, Faculty of Journalism, Department of Political Science [Faculty of History], Department of International Relations [Faculty of International Law and International Relations], Department of Sociology [Faculty of Philosophy and Sociology], and Department of Human Geography [Faculty of Geography and Geology]. The regulations on the faculty dissertation council were developed by professors Tamar Gagoshidze and Lali Surmanidze in consultation with the faculty's accademic personnel and based on public discussions. The first PhD thesis was defended in 2008.

practical methods. " (The National Qualifications Framework, 2019). By QNF Georgia the special emphasis is on development of transferable skills like project writing, publishing paper, research design, team work, interdisciplinarity, presentations, public speech, policy paper, academic integrity and research ethics.[1]

Today, 42 PhD programs are accredited in social sciences in Georgia (The National Qualifications Framework, 2019)[2] in total (Table №1).[3]

Table № 1. PhD Programs in Social Sciences by Universities and Specialties

	Program	University	Economics	Political Sciences	International Relations	Applied social Psychology	Clinical Neuropsychology	Labor and Organizational Psychology	Positive Psychology	Sociology	Demographics	Social Geography	Cultural Studies	Social and Cultural Anthropology	Social Sciences	Psychological Anthropology	European Studies	American Studies	Russian Studies
1	TSU		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	ILIAUNI			X		X		Psycology		X			X	X					
3	ATSU		X																
4	TESAU		X																
5	GTU		X		X										X				
6	FREEUNI		X		X			Psycology		X									
7	University of Georgia			X															
8	Caucasus University		X		X														
9	Robakidze University			X															
10	Georgian-American				X														

[1] It should be noted that this list is nothing more than requirements from the National Qualifications Framework. See. fully- https://eqe.ge/res/20191007105945NQFofGeorgia.pdf, p.4.

[2] https://matsne.gov.ge/ka/document/view/4480034?publication=0 – Order # 69/N of the Minister of Education, Science, Culture and Sports of Georgia on the approval of the National Qualifications Framework and the Classifier of Learning Fields .

3 For the names of some university's abbreviations are used. Full names with a site links are given in reference list.

11	SDASU	X															
12	UNIK	X															
13	GIPA												X				
14	Caucasus International University		X														
15	Samtskhe University	X															
16	Black Sea University															X	
	Total	9	5	5	6	3	1	1	2	2	3	1	1	2	1		

The content of PhD programs is a combination of course work and research components, where the course work component should provide with knowledge within the field,current debates and/or innovations, teaching transferable skills and the opportunity for expansion of the methodological, systematic field knowledge required for research. (The National Qualifications Framework, 2019).

If we compare the educational component of the existing PhD programs, with credits ranging from 35 to 60[4] for course work, one similarity for all PhD programs have integrated transferable skills development within the curricula. They vary on content based (academic writing, science management and new teaching methodologies), but still all PhDs encounter mandatory credits for skills development. [5].

As for developing professional skills for scholarly publications and grant/ project proposal writing, they are met only in four universities, including Ilia State University, the University of Georgia, English language program in economics at Caucasus University, Georgian Institute of Public Affairs (GIPA).

While comparing PhD programs, the lack of field-specific courses or seminars, which should ensure the delivery of systematic knowledge in the field and raise awareness of in-depth debates and new perspectives, is noticeable. For example, only in 10 higher educational institutions are foreseen field-specific courses and they are:

Three programs in total at Tbilisi State University: International Relations (TSU PhD IR, 2021), (TSU PhD Positive Psycholgy Empirical Studies (TSU PhD Positive Psycholgy Empirical Studies, 2021) European Studie (TSU PhD European Studies, 2021)[6]; Social and Cultural Anthropology Program at Ilia State University

[4] All university PhD programs are listed in the references at the end of the article and it was not considered to list and cite them here as well.

[5] It should be especially noted that syllabi of the courses indicated in the PhD program cannot be found anywhere, they are not open public. while Therefore it is not enables us to judge how well the course manages to achieve the objectives and learning outcomes. .

[6] It should be highlighted that all three programs were developed within the special grant aimed at the development of structured doctoral studies in a pilot mode.

(Ilia University PhD, 2021)[1]; American Studies Program at Black Sea University (International Black Sea University PhD, 2021); PhD Program in Economics at Akaki Tsereteli State University[2] (Akaki Tsereteli State University PhD Economics, 2017); Telavi State University (TeSaU PhD Economics, 2020), PhD programs in Social Sciences (GTU PhD Social Sciences, 2021)[3], Economics (GTU PhD Economics, 2021) and the English Language Program in International Relations (GTU PhD IR, 2021) at Georgian Technical University; International Relations Program at the University of Georgia (University of Georgia PhD, 2021), English Language Programs in International Relations (Caucasus University PhD IR, 2021) and Economics at the Caucasus University (Caucausus University PhD Economics, 2021); Program in Economics at Kutaisi University (Kutaisi University PhD Economics, 2021), Program in Political Science at Caucasus International University (Caucasus' international University PhD Political Science, 2021).

The educational component of PhD programs at other universities includes a doctoral seminar, which can be seen as a complementary field-specific competence course, but since is it nowhere or very vaguely explained what exactly is meant by this doctoral seminar, it is difficult to draw any conclusions. It should be noted that publicly available materials on the educational component of PhD programs provide a rather limited idea of the quality of the program in a number of cases. This does not mean that the aforementioned or missed programs can be categorized as good or bad, as we were not able to compare the content (due to inaccessibility of syllabi in public space). In this case, the quantity and quality of publications on social science, which look quite convincing in Georgia compared to other post-Soviet republics, can be considered as an indicator of quality. (Chankseliani et al., 2021). On existing problems of PhD Programs in Georgia there are several surveys/reports done by the Erasmus+ office in Georgia in 2012, 2014, 2020 (Erasmus + office Georgia)[4]. All of them indicate on almost non existing funding for PhD programs, limited accessibility to research related activities and interinstitutional collaboration and involvement in interdisciplinary teams or research projects, etc. The requirements for the dissertation widely vary and depend on the standards set by the University itself. Validation of the quality of PhD programs is done by the National Center for Education Quality Enhancement accreditation board based on in depths peer reviewed evaluation process.

It may be concluded that the educational component of PhD programs in social sciences in Georgia needs to be thoroughly revised in order to provide with field-specific competences, develop knowledge/awareness and corresponding

[1] This program, with its structure, considers the requirements of the National Qualification Framework to the maximal extent and provides special courses for those who start studying at this program from the other fields.

[2] Two field-specific courses: Economic-Statistical Analysis and Forecasting and Economic-Mathematical Methods and Models

[3] There is one mandatory course – Modern Social Theories (5 credits), and a long list of optional courses, nine in allAs already noted above only by the name of the course it is difficult to judge whether it correspond to the PhD level or not.

[4] https://erasmusplus.org.ge/en/publications

skills in accordance with the requirements of the Quality Assurance and National Qualifications Framework.

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PHD PROGRAMS IN SOCIAL SCIENCES IN GEORGIA

SUMMARY

Paper discusses the state of the art of PhD programs in Social Sciences in Georgia. It provides brief overview of the development of social sciences under the Stalinism and authoritarian regime during the Soviet Era and Perestroika, when the official limitations and ideological press was discontinued. In Georgia Social sciences were loosely developed in first decade of independence (1991) due to political and economic crisis in country till the new Law of Higher Education adopted in 2004. The restructuration of soviet style 'aspirantura' (equivalent of PhD studies) caused major shift in institutionalization of PhD studies under the research Universities. However, the quality of current PhD programs remains questionable assuring the production of new knowledge, transferable skills development, internationalization, and research output. Conclusions illustrate the core gaps in PhD institutional settings as well the content/curricula gaps for preparation the future scholars in social sciences.

Keywords: PhD programs, funding, higher education, bologna process, Georgia

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PUBLIC HEALTH EDUCATION PROGRAMS IN UKRAINE: ACHIEVEMENTS AND PROSPECTS

Staffing-related issues are a priority for the successful development of the public health system. They cover various aspects of human resource development in public health. Important issues are determining the needs of specialists of different groups, setting requirements for their competence, regulating the processes of training human resources, their rational allocation, efficient using, ensuring of continuous professional development, etc.

Public health staffing needs should be discussed in-depth in terms of the general requirements for the development of public health resources. The following requirements are set out in the Global Strategy on Human Resources for Health: Workforce 2030, other WHO documents and WHO Regional Office for Europe.

Global Strategy on Human Resources for Health: Workforce 2030 has set specific goals for improving the efficiency, quality and impact of healthcare staff; coordination of investments in human resources with the existing and potential needs of the population and healthcare system; capacity building of the institutions at various levels to effectively manage policies and activities; strengthening staff resources data for monitoring and accountability [1].

The document «Towards a sustainable health workforce in the WHO European Region: framework for action» outlines strategic objectives for staff policy in public health, taking into account regional specifics, such as improving the education

sector, creation of a high-quality education system, improving efficiency; upgrading planning and investing; capacity building; improving monitoring, etc [2].

In addition, it is necessary to take into account the specific requirements for public health professionals in the context of their theoretical training and practical skills. The staff resources development in the public healthcare system must meet both general approaches to the generation of healthcare resources and specific requirements for knowledge, skills and competencies.

Specific requirements for public healthcare staff resources are set out in the European Action Plan for Strengthening Public Health Capacities and Services; ASPHER's European List of Core Competences for the Public Health Professionals; documents of the Agency for Public Health Education Accreditation (APHEA), etc.

The European Action Plan for Strengthening Public Health Capacities and Services outlines a long-term vision for the public health development, the main directions for the activities and priorities, and 10 operational public health functions, which include high-qualified staff supply. The document emphasizes that the competent and multidisciplinary staff is the key to the effective realization of public health functions. These staff include public health professionals, healthcare professionals, and non-healthcare professionals. The need to transition to a multidisciplinary public health staffing structure was emphasized. Future professionals need a wide range of competencies, existing and new skills and knowledge, because of complexity of problems and tasks. At the same time, there is a growing need for a variety of skills in the fields of epidemiology, analytical informatics, information systems, health promotion, environmental hygiene, management and leadership, and other areas of activity. Specialists will be able to perform 10 operational public health functions only if they have all necessary competencies and skills [3].

However, the public health functions are fragmented in many European countries according to the document. There are many problems, such as insufficient funding, reducing number of high-qualified workers, unsatisfactory infrastructure, low morale of the staff and poor wages. Therefore, significant efforts are needed to increase the number of public health workers and improve their skills in accordance with modern needs. At the same time, traditional approaches to staff planning, training and management are outdated given the dynamics of healthcare labor markets, growing globalization and migration. In this context, the development of high education to lifelong learning and the transition from specialized training to the formation and improvement of a wide range of necessary competencies are of particular importance.

All these problems are especially relevant in Ukraine given the national health landscape, public policy priorities and directions of the national public health system development.

Significant work has been done to develop the staff resources of the public health system during recent years. It was implemented in accordance with the Concept of Public Health System Development in Ukraine (2016) and the Action Plan for its implementation (2017), approved by the government.

The Concept of Public Health System Development envisage to create an effective system of staff resources development in the public health, which provides for: definition of staffing as an integral part of public health development; creation and implementation of human resources development strategy; reforming the system of undergraduate and postgraduate training for public health workers and their continuous professional development, introduction of specialties and specializations «public health»; master's programs training and refresher courses or distance trainings for healthcare professionals in higher education institutions (HEIs); introduction of basic specialties programs on scientifically substantiated professional activity in the field of public health in HEIs; conducting trainings on practical epidemiology; formation of an innovative style of work with new forms of cooperation between employees of the public health system and medical care, as well as employees of the health care system and social services; providing of in-depth specialized training of graduates to conduct research and provide project professional activities in HEIs; responsibility of the Ministry of Health for the formation and development of human resources in the field of public health. The Center for Public Health of the Ministry of Health provides the needs assessment and planning of human resources development, assessment of training needs, development of training programs in the field of public health; training in public health for doctors of all specialties and other healthcare workers, as well as specialists in other fields, including journalism, social work, social and natural sciences [4].

The Action Plan for the implementation of the Concept of Public Health System Development defines the development and approval of education standards and educational programs in the specialty 229 «Public Health» to provide three-level training (bachelor's, master's and doctoral) and continuous professional development, specialized program to improve qualifications of epidemiologists; amendments to the National Classification of Ukraine NC 003: 2010 «Professions Classifier» in the field of «public health», development of an action plan for the staff development in the public health system [5].

The specialty «public health» was included by government resolution in the list of fields of knowledge and specialties for training in HEIs for realization of the Concept of Public Health System Development in 2017.

Representatives of the Bogomolets National Medical University (NMU) were included in the interdepartmental working group on the staff development in the

public health system, which developed and approved educational standards for bachelors and masters of public health. The standards provide a description of the subject area, including objects, learning aims, theoretical content of the subject area, methods, techniques and technologies, tools and equipment, academic rights of graduates. It was determined the amount of ECTS credits required for obtaining the appropriate degree of higher education. The standards consist of the list of graduate competencies, including integral, general and special; normative content of higher education training for students, formulated in terms of learning outcomes; forms of certification, requirements for the availability of internal quality assurance system of higher education; list of normative documents on which the standard of higher education is based; other recommended sources. A draft on an educational standard for the PhD training in the public health field has also been developed, which is currently undergoing professional examination at the Ministry of Education and Science of Ukraine [6-7].

A number of universities have started to develop educational programs for bachelors and masters of public health, to obtain licenses from the Ministry of Education and Science of Ukraine to train relevant specialists. This made it possible to start training bachelors in public health in 2018 and masters in 2019.

Bogomolets NMU became the first HEIs in the country, which received licenses to train bachelors and masters in public health field.

It was required to study the ASPHER's European List of Core Competences for the Public Health Professionals for formation educational programs [8]. This document is the basis for the content determining for public health professionals training to achieve many competencies. Competences are formed by the student's acquisition of theoretical knowledge and practical skills in the analysis of complex, dynamic models of public health, the risk groups detection; outlining goals and selecting target groups for interventions; development of solutions and their implementation with evaluation of results. In particular, the public health specialist must be able to understand and evaluate the results of public health research, determine the relevance, economic feasibility and ethical acceptability of interventions. This requires the development of a wide range of competencies for monitoring, analysis, control of actions related to health challenges. At the same time, research and analysis competencies are necessary to perform two functions of public health, which include epidemiological surveillance and assessment of public health and well-being; monitoring and responding to health hazards and health emergencies. Competences in the services providing give the opportunity to implement the following three main operational functions of public health: health protection; health promotion and disease prevention. Competencies related to implementation mechanisms are necessary for the basic operational functions of providing strategic leadership in favor of health and well-being; providing highly efficient and competent staff in public health; provision of organizational structures and financing; informational and explanatory activities, communication and social mobilization in the interests of health; and to promote the development of health research to substantiate policy and practice.

An analysis of the ASPHER's European List of Core Competences for the Public Health Professionals showed that knowledge and skills to use some public health methods are especially needed. Also, core competences include aspects of public health in connection with social, economic and political determinants; problems of impact on public health and material, radiological, chemical, biological and environmental determinants; issues of policy, economics, theory of organization, leadership and management in healthcare field; measures to promote health, health care and disease prevention; ethical issues. The education should be based on the provisions of a number of scientific fields, including epidemiology, biostatistics, demography, sociology, social psychology, hygiene, philosophy, ethics, political science, anthropology, economics, management and more.

Educational programs for bachelors and masters at the Bogomolets NMU were based on the study and analysis of the training experience of public health professionals in leading universities in Europe and in the world generally [9-12]. They showed significant differences in educational programs related to the number of disciplines, credits, forms of certification, and so on. Educational programs for public health specialists of the Institute of Public Health of the Jagiellonian University Medical College, Medical Universities of Warsaw and Wroclaw, the University of Debrecen, Sofia Medical University, the Carolina Institute, and the University of Massachusetts were chosen as the closest examples. Analytical generalizations revealed the features and patterns of basic and special training, also revealed the volume and duration of study for some disciplines, the content of educational programs, features of practical training regulation, the matrix of learning outcomes, employment prospects for future graduates.

The training programs for health and prevention professionals were analyzed because of strategic direction of public health service development in Ukraine and the lack of established practice of public health training. It was found that the educational process provided comprehensive training for health professionals, including safety of the environment, labor, food, epidemiological surveillance and public health assessment. At the same time, a much wider knowledge, skills and competences are needed to perform the basic operational public health functions, including health promotion and the impact on socio-economic determinants; strategic leadership in the favor of health; organizational and managerial issues and financing; effective awareness-raising initiatives or advocacy, communication and social mobilization in the interests of health, which should be taken into account during preparing of new modern educational programs.

The projects of educational and professional training programs for public health professionals were developed in the Bogomolets NMU after completion of the analytical work, taking into account the recommendations and requirements of international and national documents, experience of similar work done in other countries, according to educational standards [13].

The educational and professional training program for bachelors of public health at the Bogomolets NMU provides a four-year full-time study. It aims to develop

the ability to apply the acquired knowledge, skills, abilities and understanding of the human sciences, fundamental and professionally-oriented disciplines to solve typical questions of the Bachelor of Public Health in the relevant position. The subject areas of knowledge are the health of the population, the affecting determinants; organizational, managerial, expert, control-analytical, project, research activities in the field of public health and health promotion. The educational program outlines the integral and a number of general and professional competencies, program learning outcomes. Integral competence is the ability to solve complex specialized tasks and practical problems in the process of professional activity or training in the field of public health, which involves to use of theories and methods of public health and characterized by complexity and uncertainty.

13 disciplines are mandatory components of the educational-professional bachelor's program within the general training. Professional training of bachelors includes 39 disciplines. In addition, the educational program provides the study of elective subjects from a number of proposed. Educational training of the first level of higher education in the specialty 229 "Public Health" provides for a differentiated distribution of general education, vocational and elective components of the educational program by year of study, depending on the number of ECTS credits. In general, the volume of the educational and professional bachelor training program is 240 ECTS credits, including the normative part – 180 ECTS credits (75%), the elective part – 60 ECTS credits (25%). A single state qualification exam "Step" and a practice-oriented exam are the form of certification.

The educational and professional training program for masters of public health provides for 1 year and 10 months full-time study. The purpose of the master of public health training program is to develop the ability to apply the acquired knowledge, skills, abilities and understanding of the human science, fundamental and professionally-oriented disciplines to solve typical tasks of the master of public health in the relevant position. Integrated competence implies the ability to solve complex problems and issues in the field of public health and during learning process. They make possible to provide research and/or innovation and characterized by uncertain conditions and requirements. The general and professional competencies of masters of public health, defined by the program, are consistent with the requirements of the educational standard.

The content of the educational and professional training program for masters of public health is formed by occupational safety and health, biostatistics, public health, monitoring and assessment of interventions, healthy lifestyles promotion, economics, epidemiology, communication and media, marketing of medical services, research methodology, international health issues, healthcare organization and management, logistics, environmental protection, assessment and forecasting of health needs, health pedagogy, health policy, law in the healthcare system, sanitary and epidemiological surveillance, public health project management, health insurance, pharmaco-economics, health care financing, forms of medical care, nutritional hygiene, healthcare information tools and systems, collection,

visualization and compilation of public health data, health psychology, sociology of health, quality management in healthcare system. In addition, the studding of a number of elective subjects is also provided.

The total amount of the educational and professional master's program is 120 ECTS credits, including the normative part – 90 ECTS credits (75%) and elective part – 30 ECTS credits (25%). is The forms of certification include a single state qualification exam «Step» and public defense of qualification work. The program provides 2 specializations: «healthy lifestyle promotion and epidemiology» and «healthcare management».

Such process was continuing in other HEIs in Ukraine. Currently, six HEIs have licenses to train bachelors, and thirteen HEIs have licenses to train masters of public health.

However, public health master's degree programs have some shortcomings in certain universities. An analytical review of such programs for their compliance with national educational standards and the list of competencies defined by the ASPHER's European List of Core Competences for the Public Health Professionals revealed uneven and insufficient describing of public health, social, economic and political determinants. Also, lack of consideration of political determinants, insufficient representation of behavioral determinants of health, which can be effectively influenced by the public health system were observed. As a results of the review were identified some gaps in HEIs educational programs. That was contributed to the development of specific subjects and modules to fill knowledge and skills deficiencies.

Bogomolets NMU performed a self-assessment of the public health master's degree programs, which were checked for consistency with the National Education Standard and the ASPHER's European List of Core Competences for the Public Health Professionals. It was established that the educational program is fully consistent with the national educational standard. A comparative analysis of the public health master's degree programs with the WHO-ASPHER's European model of Core Competences revealed a high level of compliance. Virtually all competencies in the 10 areas of core competencies provided by the WHO-ASPHER's European model of Core Competences are provided by the educational context of the university educational program in the process of studying a wide range of disciplines. At the same time, attention is paid to the formation of competencies in such aspects of the future activities of masters of public health as a deep understanding of public health issues and theories on which practice is based; establishing of the necessary connections, effective cooperation and implementation of leadership qualities; substantiation, development and decision-making to improve health with a focus on human needs [14].

The preparation for the unified state qualifying exam for graduates of master's programs in public health is an important step in the process of training human resources for the public health system. It includes the creation of an expert group,

determination of the content/program of the exam (purpose, structure), selection of expert test developers, training for expert developers, development of test tasks (at least 1000 tasks), testing and examination, selection of test tasks and exams. A pilot single state qualifying exam was conducted in 2021. It will be part of the state certification of graduates.

The PhD training is important for formation of the full structure of human resources in public health. Given that Ukraine is still in the process of educational standard approving for the preparation of doctors of philosophy in public health, there are no structured PhD programs in public health. The creation of the PhD educational program in this field is an innovative approach to the development of education in the national public health system, based on the analysis of European best practices. The development of a PhD programs is aimed at the developing knowledge, research and analytical skills in the field of public health, training highly specialized staff in this field, who able to assess needs, develop programs and carry out activities in the field of healthcare. Development of scientific and educational PhD training in public health should be harmonized with the programs of European universities because of European integration of Ukraine, medical science and education, the Association Agreement between Ukraine and the European Union. In this aspect, it is advisable to study the European experience in creation and modernization of educational programs.

CONCLUSIONS

Among the tasks of human resources formation in public health, an important role is given to the substantiation, development and implementation of educational programs for bachelors, masters and PhD. In Ukraine, this process is carried out systematically in accordance with the Concept of Public Health System Development and the Action Plan for its implementation.

Scientific substantiation of educational and professional training programs for bachelors and masters of public health is carried out on the basis of analysis of strategic and program documents at the global, regional and national levels, ASPHER's European List of Core Competences for the Public Health Professionals, educational programs for public health specialists in other universities in Europe and in the world general in accordance with national educational standards.

Educational and professional training programs for bachelors and masters in public health developed at the Bogomolets NMU meet national educational standards and the WHO-ASPHER's European model of Core Competences for public health staff in the European region. They provide the acquisition of knowledge, skills and competencies for the implementation of basic operational functions of public health, providing relevant services in interdisciplinary and intersectional cooperation.

The substantiation and development of a research and educational public health PhD programs according with the programs of European universities are the priorities for future.

The implementation of the proposed educational and professional training programs for bachelors and masters of public health will contribute to the formation of modern human resources in the field of public health and the successful implementation of their functions.

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PUBLIC HEALTH EDUCATION PROGRAMS IN UKRAINE: ACHIEVEMENTS AND PROSPECTS

SUMMARY

The WHO strategic documents on health care system staffing, including their components – public health systems, were analyzed. The tasks on the development of human resources in the public health system of Ukraine were highlighted, which are outlined in the Concept of the development of the public health system in Ukraine and the Action Plan for its implementation. The stages of formation of public health staffing, normative-legal, organizational-administrative and educational-scientific support of this process were studied. The role of the Bogomolets National Medical University in the development of educational standards, educational programs for bachelors, masters and doctors of philosophy in the public health system was presented. Educational and professional training programs for bachelors and masters of public health was described.

Keywords: educational programs, educational standards, bachelors, masters of public health, PhD, competencies.

DEPARTMENT OF PUBLIC
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NEW DOCTORAL PROGRAMME IN PUBLIC HEALTH AT YEREVAN STATE MEDICAL UNIVERSITY

Schools of public health offer a variety of degrees which generally fall into two categories: professional or academic (Nicoud M., 2013). The two major postgraduate degrees are the Master of Public Health (MPH) or the Master of Science in Public Health (MSPH). Doctoral studies in this field include Doctor of Public Health (DrPH) and Doctor of Philosophy (PhD) in a subspeciality of greater Public Health disciplines, e.g. epidemiology, environmental health, etc. DrPH is regarded as a professional degree and PhD as more of an academic degree.

The doctoral degree in public health is the highest and final professional degree that prepares specialists as qualified staff for the research, teaching, senior-level administration and policy making, as well as leadership in public health. Doctoral Programme in Public Health is based on multidisciplinary approach with unique focus on issues relevant to entire population health rather than individual patients.

In European and American practice in doctoral degree programmes a one-level model is used (Calhoun J. et al., 2012; Declercq E. et al., 2008; Lee J. et al., 2009; Park C. et al., 2021). However, in Armenia the post-soviet two-level model of doctoral education is still kept: first level is candidate of science and the second one – doctor of science.

In the Republic of Armenia, the Supreme Certifying Committee (SCC), subordinated authority at the Ministry of Education, Science, Culture and Sport, coordinates only procedure of thesis defense; sets requirements relevant to thesis methodology, novelty and actuality issues. The own process of PhD education itself is not regulated by SCC. The duration, curriculum, admission process is flexible and all these issues are under the responsibility of Higher Education Institutions (HEI) or research centers and institutions. Mentioned issues make the process of compliant with standards of the European Qualification Framework and Salzburg principles more slowly. To accelerate the modernization and integration process of third level education, European Union thru his ERASMUS programme funded several projects aimed to promote EU standards in Eastern Partnership Countries. Yerevan State Medical University collaborated in number of multilateral projects focused on modernization and internalization of PhD education in Armenia: VERITAS, C3QA, MODEST, ARMDOCT.

In Armenia the academic degree in "Public health and organization of health care" specialty is awarded within the fields of "Medical sciences". There is a strict requirement for its award: the candidate should hold MD, otherwise he will not be eligible for this qualification. Due to this approach the problem has been arisen just recently when Yerevan State Medical University (YSMU) opened admission to MPH programmes for candidates with non-medical background.

PhD education in YSMU constitutes the main link between the higher education and research areas. Thus, the aim of a doctoral education programme is to provide individual depth of experience, the advancement of knowledge through original research, the development of skills in critical analysis, evaluation and synthesis of new and complex ideas. It is traditionally falling formally more into academic field, although due to significant reduction of state support of science and research and job cuts in research institutions, majority of graduates continue their career in practical public health care.

To harmonize PhD education in partner countries with the Salzburg principles for the third level of higher education the Project «Doctoral Programmes in Public Health and Social Science (DPPHSS)» (No: 597977-EPP-1-2018-1-AM-EPPKA2-CBHE-JP) was launched in 2018. The project is targeted on development of programmes integrating two closely related fields: public health and social sciences. The overall aim of the project is to improve the quality of public health and social services in partner countries through educating highly qualified interdisciplinary specialists, researchers and academics. The project is addressed establishment of doctoral program in Public Health and Social Work in partner universities in line with standards of the European Qualification Framework and Salzburg principles, as well as to promote collaboration and partnership between EU and partner countries universities. The partner universities involved in the Project implementation are as following: from Armenia – Yerevan State Medical University and Yerevan State

University; from Georgia – the University of Georgia and Ivane Javakhishvili Tbilisi State University.

Within the Project implementation the Catalogue of needs was worked out. The document is addressed on identification of current gaps and needs in education of higher qualification specialists in public health and social sciences. The catalogue is serving as the baseline for further documents development; as well actions have to be taken for successful implementation of the project. The document includes the list of needs of partner universities for realization of the main goal of the project and further steps to be implemented to meet the needs identified within the project.

The needs identified for partner universities in realization of the main goal of the project for partners of Armenia embrace, first of all, the issue on approval of code for the specializations that is under discussion: whether it will be a joint degree in Public Health and Social Work, or the doctoral degree will be established separately for each partner university. The partner universities of Georgia indicated the need to create a new doctoral program in public health and social work for each partner university in Georgia.

All project partners came to the same conclusion on the aspects related to the needs for the development of doctoral study programs, which are to create a credit system for the programs, develop modules and course materials for each module, guidelines on the PhD students' acceptance criteria and study processes.

For the successful implementation of Project there is keen need in passing the accreditation process that requires, firstly, having necessary information on the PhD programs' accreditation procedures on the national and university levels, preparing the necessary documents, as well supporting resources and data (information), and finally to pass and get the accreditation of the doctoral programs on both national and university levels.

Based on needs assessment and catalogue of needs worked out within the project, new curriculum and course content was developed for new PhD programme in Public Health. YSMU recently has enrolled two students in newly developed programme and starts piloting.

After the identifying the needs the partner universities have developed a number of steps to be taken to meet the needs mentioned above.

The partner universities came to the consensus on issue on having new doctoral programme and the code of the specializations. The steps to be taken are consisting in initiation of the cycle of discussions in and between the partner universities on the most appropriate way for establishing/rearranging the doctoral program, for Armenian partners to make a final decision on having joint or separated PhD in Public Health and Social Work (Sciences), to have meetings and discussions with the officials for lobbing the establishment of the PhD code of specialty, as well as go through the necessary procedures of fixing the doctoral degree in the list both of the code of specializations in Armenia and PhD programmes in Georgia, set the pre-requirements and eligibility criteria for candidates enrolment.

To meet the needs for development of doctoral study program the partner universities were unanimous in following steps: forming a working group of the faculty members on the program development; preparing the creation of the program's credit system; forming the group from the faculty members, who will teach within the program; development of the modules and course materials for each module, which will be taught in the program, as well preparing the guidelines on the PhD students acceptance criteria and study processes.

The following steps were summarized on need of passing the accreditation process: to analyze contemporary requirements and procedures for the PhD programs' accreditation; to develop the documents necessary for passing the procedures and to apply for the accreditation of the program both on national and university levels.

For the recruitment procedure for the pilot PhD program, the partner universities of Armenia and Georgia proposed to prepare an information package about the new PhD program and disseminate this information among target groups to raise awareness and motivation, to prepare and conduct exams for applicants.

All steps worked out within the Project implementation are aimed at establishment of close partnerships with the partner universities of Armenia and Georgia. The final solution on maintaining the doctoral program on joint degree in Public Health and Social Work, or the doctoral degree separately will enhance human capacity in public health and social services in partner countries through educating highly qualified interdisciplinary specialists. Successful implementation of Project will enable specialist educated within new doctoral programms to be open to all career pathways. The Doctoral Programmes in Public Health and Social Science are expected to provide academic knowledge, highly professional skills in applied public health and social work to pursue careers in either academia or the public and private sectors, because public health is an applied social science that bridges the gaps between research and practice.

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NEW DOCTORAL PROGRAMME IN PUBLIC HEALTH AT YEREVAN STATE MEDICAL UNIVERSITY

SUMMARY

The doctoral degree in public health is the highest and final professional degree that prepares qualified specialists in the field of public health. In European and American practice in doctoral degree programmes a one-level model is used.

In Armenia two-level model of doctoral education is still kept: first level is candidate of science and the second one – doctor of science. The Supreme Certifying Committee (SCC), coordinates only procedure of thesis defense. In addition, PhD degree in "Public health and organization of health care" specialty is awarded in the field of "Medical sciences" with a strict requirement to hold MD degree. This approach creates barriers for candidates with non-medical background, as Yerevan State Medical University (YSMU) has opened admissions for these candidates to the MPH programmes. To harmonize PhD education with the Salzburg principles for the third level of higher education the Project «Doctoral Programmes in Public Health and Social Science (DPPHSS)» was launched with partner countries universities in

2018. A cycle of discussions has been initiated between partner universities and state authorities on the most appropriate way to establish/rearrange the doctoral program. The Armenian partners discussed the decision to have a joint or separate PhD in Public Health and Social Work (Sciences). All steps taken within the Project are aimed at establishment of close partnerships with the partner universities of Armenia and Georgia. The final solution on maintaining the doctoral program on joint or separate degree will enhance human capacity in public health and social services in partner countries.

Keywords: doctoral programme, public health, social science, partner universities, partnership.

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DOCTORAL PROGRAMS IN PUBLIC HEALTH: ACCREDITATION STANDARDS FROM EUROPEAN AND NATIONAL PERSPECTIVES

INTRODUCTION

The relevance of internationally recognised standards for the development and quality improvement of educational institutions and programs is widely acknowledged within the educational system (Jonsson, Mulvany, Lackovic, 2012). Through the joint efforts of various international organisations (Organisation for PhD Education in Biomedicine and Health Sciences in the European System/ ORPHEUS, Association of Medical Schools in Europe/AMSE and World Federation for Medical Education/WFME) the establishment of standards for PhD programs in biomedicine and health sciences beganxx in 2004 and was completed in 2012 (ORPHEUS-AMSE-WFME, 2012).[1]

Standards for PhD Education in Biomedicine and Health Sciences in Europe, proposed by ORPHEUS, is in general agreement with the requirements of the World Federation for Medical Education Global Standards for Improving the Quality of Medical Education and the Salzburg II Recommendations (WFME, 2007; EUA-CDE, 2010). Although the standards have been developed for the European region, they may be used globally.

[1] https://orpheus-med.org/wp-content/uploads/2021/11/ORPHEUS-AMSE-WFME-standards-for-PhD-education.pdf

The standards are structured according to the eight main domains (Table №1) and are divided into two levels of attainment: basic standard and standards for quality development. Basic standard must be met by every Doctoral school/PhD programme, standards for quality development is in accordance with consensus about best practice. It is intended that standards could be of use for doctoral programme development, benchmarking and for both, internal and external evaluation.

Based on the ORPHEUS-AMSE-WFME standards in 2016 new publication. „Best practice for PhD Training'' was brought out through the joint effort of ORPHEUS and AMSE. This document follow the structure and main content of original ORPHEUS-AMSE-WFME standards document with some adjustment, however the „standards'' are replaced by„recommendations'' providing more flexibility to HEIs. Recommendations are structured according to the same domains, as standards in ORPHEUS-AMSE-WFME document (Table №1). In the new publication„Best practice for PhD Training'' there are two types of recommendations: Basic and Quality Development. Basic recommendations are particularly important and recommendations for quality development are in accordance with consensus about the best practice globally and are divided into two levels: strongly recommended and issues for consideration.

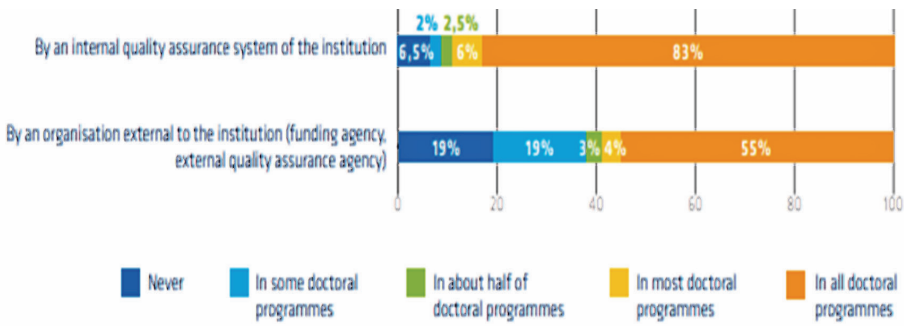
Table 1 Domains of standards and recommendations

ORPHEUS STANDARDS FOR PHD EDUCATION IN BIOMEDICINE AND HEALTH SCIENCES IN EUROPE	*BEST PRACTICE FOR PHD TRAINING*
1.RESEARCH ENVIRONMENT	1.RESEARCH ENVIRONMENT
2.OUTCOMES	2.OUTCOMES
3.ADMISSION POLICY AND CRITERIA	3.ADMISSION POLICY AND CRITERIA
4.PhD TRAINING PROGRAMME	4.PhD TRAINING PROGRAMME
5.SUPERVISION	5.SUPERVISION
6.PhD THESIS	6.PhD THESIS
7.ASSESSMENT	7.ASSESSMENT
8.STRUCTURE	8.GRADUATE SCHOOL STRUCTURE
In addition, both European documents includes annotations that provide further details and clarification of expressions in the standards or in the recommendations.	

It is suggested that recommendations for best practice could be of use for benchmarking, internal evaluation and enhancing the quality of PhD programmes in biomedicine and health sciences, including PhD programmes in Public Health and similarly to the ORPHEUS-AMSE-WFME standards can be applied in a global context. ORPHEUS-AMSE Recommendations are in full compliance with the European Commission's Principles for Innovative Doctoral Training, the Salzburg II document of the EUA-CDE.

According to a survey conducted by the European University Association (EUA), which involved 250 higher education institutions from 36 countries in the European region, 83% of the interviewed universities use an internal evaluation system to ensure the quality of all doctoral programs, while only 55% use an external system. According to a survey 19% of institutions had never used an external evaluation of PhD programs, while 19% of them had used it only for some PhD programs, and 3% had used it for about 50% of programs (EUA, 2019).

Georgia is one of the countries that uses both internal and external evaluation procedures to ensure the quality of programs in all levels[1], including doctoral programs.



Source: *EUA, 2019 (p.31)*

ACCREDITATION IN GEORGIA

External quality assurance is administered by the National Center for Educational Quality Enhancement [2] through institutional evaluation of the HEIs (authorization) and evaluation of educational programs (accreditation).

Institutional evaluation is a mandatory external mechanism which provide to the HEIs the right to carry out educational activities and deliver educational programs.

According to the Law of Georgia on Higher Education there are three types of HEIs (University, Teaching University and College). Just HEI with status of„University"

[1] Georgia joined Bologna Process in 2005 and since that time there is a three-cycle higher education system (bachelor, master and doctoral). Medical programs are exception and they are defined as one cycle/integrated programs, which are equivalent to a Master level education.

[2] National Center for Educational Quality Enhancement is a member of the European Association for Quality Assurance in Higher Education (ENQA), the European Quality Assurance Register for Higher Education (EQAR),
the Central and Eastern European Network of Quality Assurance Agencies in Higher Education (CEENQA). National Center for Educational Quality Enhancement has been recognized by the World Federation for Medical Education (WFME).

is authorized to deliver doctoral programs and to award PhD academic degree. Currently there are 32 authorized Universities, among them 12 are state and 20 private.

Evaluation of educational programs (accreditation) is obligatory for regulated professions (medicine, veterinary, law, teacher preparation and maritime education) and for doctoral programs as well. Accordingly, only after evaluation of educational program and accreditation procedures can be implemented doctoral programs in any fields.

During the accreditation process the panel of external experts evaluates the compliance of educational programmes with Accreditation Standards for Higher Education programmes. There are five accreditation standards, according to which higher educational programs are evaluated. Each accreditation standard is broken down into the sub standards. This set of accreditation standards apply to all three levels of education, including doctoral programs in Public Health.

In 2020 in the framework of ongoing Erasmus + project the Doctoral program in Public Health and Epidemiology was updated and self-evaluation was carried out based on national accreditation standards at Tbilisi State University, Faculty of Medicine. Additionally, the national standards of accreditation were compared to European requirements on PhD training in order to identify differences among them and to define the areas for future improvements. Two documents, *Orpheus Standards for PhD education in biomedicine and health sciences in Europe* (hereinafter European Standards) and *Best practice for PhD Training* (hereinafter European Recommendations) were selected for comparative analysis.

The structures in the national standards and the European documents are different. The national standards and sub standards cover seven domains that are presented in European documents. The only exception is the 4th standard – PhD thesis (Table №2).

Table №2. National and Euroepan standards for doctoral programmes

NATIONAL STANDARD AND SUB-STANDARD		*EUROPEAN STANDARD*
1. The educational programme Objectives, learning outcomes and their compliance with the programme	*1.1 Programme Objectives*	
	1.2 Learning Outcomes of the Programme	*Standard 2.Outcomes*
2. Teaching methodology and organization, adequate evaluation of Programme mastering	*2.1 Admission prerequisites for the programme*	*Standard 3.Admission policy and criteria*
	2.2 Programme Admission Preconditions	
	2.3 Educational Programme Structure and Content	*Standard 4.PhD Training Programme*
	2.4 Course	

	2.5 The Development of practical, scientific/research/ creative/performance and transferable skills	*Standard 1. Research environment*
	2.6 Teaching-learning methods	
	2.7 Student evaluation	*Standard 7.Assessment*
3. Student achievement and individual work with them	*3.1 Student support services*	
	3.2 Master's and Doctoral Student supervision	*Standard 5. supervision*
4.Providing teaching resources	*4.1 Human resources*	*Standard 8. Graduate School Structure*
	4.2 Professional development of academic, scientific and invited staff	
	4.3 Material resources	
	4.4 Program, faculty, school budget, and program financial sustainability	
5. Teaching quality Enhancement opportunity	*5.1 Internal quality assessment*	
	5.2 External quality assessment	
	5.3 Programme monitoring and periodic review	

In terms of content, there are some basic requirements or important recommendations in the European documents that are key points for the evaluation of doctoral programs, however are note reflected in National accreditation standards, as well quality development standards and recommendations that will be useful for future consideration.

BASIC STANDARD 1. RESEARCH ENVIRONMENT	***BASIC RECOMMENDATION 1. RESEARCH ENVIRONMENT***
European Standards	*European Recommendations*
Research must be consistent with international ethical standards and approved by appropriate and competent ethics committees.	*Research should be consistent with international ethical standards and approved by appropriate and competent ethics committees.*
Annotations: *International ethical standards are e.g. Helsinki Declaration II (clinical), EU Directive 2010/63/EU (animal), and Oviedo Convention (bioethics).*	

The national standards do not require any approval of research protocol from the ethics committee. Despite this to our knowledge, in practice research

activities start only after the approval of research protocol by IRB, as an example, all scientific researches done in the frame of TSU doctoral program„Public Health and Epidemiology" have been approved by ethics committee. However we cannot generalized that this approach is applicable at all Universities in the country.

BASIC STANDARD *4. PHD TRAINING PROGRAMME*	*BASIC RECOMMENDATION* *4. PHD TRAINING PROGRAMME*
European Standards	*European Recommendations*
PhD program must ensure that students have substantial training in the rules concerning ethics and responsible conduct in research.	*PhD program should ensure that candidates have appropriate training in the rules concerning ethics and responsible conduct in research.*
The programme must include formalized courses totaling about 6 months (≈30 ECTS points) parallel with the PhD project. A substantial part of the courses programme, must be concerned with training in transferable skills.	*The Training programme should include documented activities not directly related to the project (e.g. courses, Journal clubs, participation in conferences, seminars and workshops, including preparation time) totaling about 15% of the programme parallel with conduct of the PhD project. A substantial part of these training activities should be concerned with transferable skills.*
Annotations: *The courses would include courses in ethics, health and safety, animal experimentation (if applicable), research methodology and statistics and elective discipline-specific components to support students in their scientific research. Courses in transferable skills are important both for those who may be expected to continue in research, in either public or private institutions, and for those who continue towards careers in other fields.*	

The national standards do not specify the amount of credits for formalized courses and the share of transferable skills in this component, however the Law of Georgia on Higher Education defines the maximum number of ECTS credits for formalized courses, namely 60 ECTS[1]. The National standards of accreditation do not require teaching of research ethics and rules of academic honesty. Research ethics isn't considered a a stand-alone training course. However, „*Observing principles of ethics and integrity*" is a sub-standard of Authorization Standards.[2] according to which HEIs should have mechanisms implemented for detecting and prevention plagiarism. Indeed higher education institutions in Georgia already have regulations and mechanisms in place in order to prevent and respond to plagiarism, including the rules on responsible conduct during research. Ethics in authorization substandard is considered as code of conduct for students and staff. Participation in conferences, seminars and workshops, is not considered as a part of teaching component of PhD training.

[1] Chapter VII Levels of Higher Education https://mes.gov.ge/upload/text/geo/1196078343_legislation.pdf

[2] https://eqe.ge/en/page/static/449/avtorizatsiis-standartebi

BASIC STANDARD *4. PHD TRAINING PROGRAMME*	*BASIC RECOMMENDATION* *4. PHD TRAINING PROGRAMME*
European Standards	*European Recommendations*
PhD programmes must be structured with a clear time limit, a length equivalent to 3-4 years full time. Extension of the time frame should be possible, but be limited and exceptional. The time frame must be extended in connection with parental leave and sick leave.	*PhD programmes should be structured with a clear time limit, a length equivalent to 3-4 years full time. Extension of the time frame ought to be possible, but be limited and exceptional rather than typical. The time frame should be extended in connection with parental leave and sick leave.*

The national standards do not specify a time frame for the program (as they apply to programs at all levels), however the Law of Georgia on Higher Education regulates the duration of PhD Program. According to the Law the duration should be no less than 3 years and teaching components should not exceed 60 ECTS.[3] In Georgian legislation nor in regulations there is no definition of a full-time equivalent student and part-time student.

BASIC STANDARD *6. PHD THESIS*	*BASIC RECOMMENDATION* *6. PHD THESIS*
European Standards	*European Recommendations*
The benchmark for the PhD thesis must be the outcome to be expected from 3-4 years' research at international level. In biomedicine and health sciences this benchmark is the equivalent of at least three in extenso papers published in internationally recognized, peer-reviewed journals.	*In biomedicine and health sciences the requirement is at least three in extenso papers published in internationally recognized, peer-reviewed journals on the subject of the PhD thesis. To encourage international recognition, the thesis should be written, and optimally also defended in English. An abstract should be published in English."*
Annotations: *By internationally recognized journals is meant good quality journals in the field concerned that are included in PubMed, Science Citation Index, or similar biomedical and health science literature databases. The quality of the PhD thesis will often be judged by the impact factor of the journals.* *It is generally understood that the PhD student has made a major contribution to each of the individual studies in the thesis and is the first author of at least some of the papers in the thesis.* *Some institutions require that at least one paper is published (sometimes with the additional requirement of impact factors above a certain level).*	

There is no specific requirements in national standards of accreditation and no unified approaches for publications. The requirements can differ from University to University. For example, at TSU, a precondition for the defense of a PhD thesis in Public Health and Epidemiology is the publication of three articles on the research subject, among them one should be published in an internationally recognized peer-reviewed journal, where the students should be the first author.

[3] Chapter VII Levels of Higher Education https://mes.gov.ge/upload/text/geo/1196078343_legislation.pdf

In general the PhD thesis must be written in national language i.e. Georgian. The requirement for an abstract to be written in English is determined at the HEI level.

QUALITY DEVELOPMENT STANDARD *6. **STRUCTURE***	*BASIC RECOMMENDATION* *6. STRUCTURE*
European Standards	*European Recommendations*
The graduate school should have a homepage, in the national language and in English, including transparent information about main policies concerning: the responsibilities of the head of graduate school and the administration, · quality assurance and regular review to achieve quality improvement, · admission policy including a clear statement on the process of selection of students, · the structure, duration and content of the PhD programme, · the methods used for assessments of PhD students, · the formal framework for following the progress of the individual student, · supervisor appointment policy outlining the type, responsibilities and qualifications of supervisors, · effective use of information and communication technology.	*The graduate school should have a website, in the national language and in English, including transparent information about main policies concerning: the responsibilities of the head of graduate school and the administration, · quality assurance and regular review to achieve quality improvement, · admission policy including a clear statement on the process of selection of candidates, · the structure, duration and content of the PhD programme, · the methods used for assessments of PhD candidates, · the formal framework for following the progress of the individual candidate, · supervisor appointment policy outlining the type, responsibilities and qualifications of supervisors, · effective use of information and communication technology.*

As the language of instruction of PhD programmes is Georgian language, the information about n PhD programmes in English is rarely availabile in English or is very general.

QUALITY DEVELOPMENT STANDARD *5. SUPERVISION*	*RECOMMENDATION FOR QUALITY DEVELOPMENT* *5. SUPERVISION*
European Standards	*European Recommendations*
Supervisors must have regular consultations with their candidates	*Supervisors should have regular consultations with their candidates*
Institutions could having the documented agreements describing the supervision process that are signed by supervisor, PhD candidates and the head of graduate school.	*Institutions should consider having contracts describing the supervision process to be signed by supervisor, PhD student and head of graduate school.*
The principal supervisor, at least, should have some formal training as a supervisor.	*The principal supervisor, at least, ought to have formal training as a supervisor.*
***Annotations:** The term "regular consultations" will normally mean at minimum several times per month, but frequency will vary during the course of the programme according to the requirements of the individual PhD candidate.* *Web-based supervisor courses could be arranged for all supervisors to ensure that they know the regulations of the PhD programmes as well as their basic duties as supervisors.*	

In Georgia, the contract is signed by PhD students and High Educational Institutions (HEIs) and not by supervisor.

The intensity of the meetings between PhD student and supervisor is not defined in advance and is based mainly on individual approaches of supervisor.

In Georgia, there is a lack of formal trainings for supervisors. This gap is usually filled in the framework of different International projects.

*QUALITY DEVELOPMENT STANDARD 6. **ASSESSMENT***	*RECOMMENDATION FOR QUALITY DEVELOPMENT 6. ASSESSMENT*
European Standards	*European Recommendations*
To promote internationalisation, the institution should where possible ensure that the assessment committee includes at least one member from another country.	*To promote internationalisation, the institution could where economically and practically possible ensure that the assessment committee includes at least one member from another country.*
***Annotations:** Institutions should explore the use of information technologies to allow some members of assessment committee to participate in thesis evaluation and defence at a distance, in order to achieve an independent, competent, but also a more affordable international examination.*	

The national standards do not require to include a representative from another country in the assessment committee. This is closely linked with economic issues. However as a result of the Covid-19 pandemic and in response to an urgent necessity the distance education is widely adopted into Georgian Higher Education System, thus, it enables the involvement of external members of assessment commitee remotely.

The main reason why domain„PhD Thesis" and some of the above listed basic standards or important recommendations are not considered in national standards is that unified accreditation standards for educational programmes apply to all three levels of education. It is important to separate standards of accreditation for PhD Programmes from standards for BA and MA programmes. This will allow incorporation in this set of standards specific requirement for PhD training. Some of the above listed basic standards or important recommendations, such as full and part-time study, volume of formalized courses, etc. could be the subjects for future reflections. Regarding the consideration of above listed quality development standards and recommendations these might significantly contribute to the promotion of internationalization and enhancement of the quality of PhD education in Georgia.

CONCLUSION

The structure of the National Accreditation Standards for Higher Education programmes in Georgia are generally in compliance with the main domains of European requirements for PhD education in biomedicine and health sciences. The domain„PhD Thesis" and some components in basic and quality development requirements of European documents are not covered by national standards. Identified key points need to be addressed in order to harmonize national set of standards with European requirements for PhD programs. This will enhance the quality of PhD programs in biomedicine and health sciences, including PhD programs in Public Health in Georgia.

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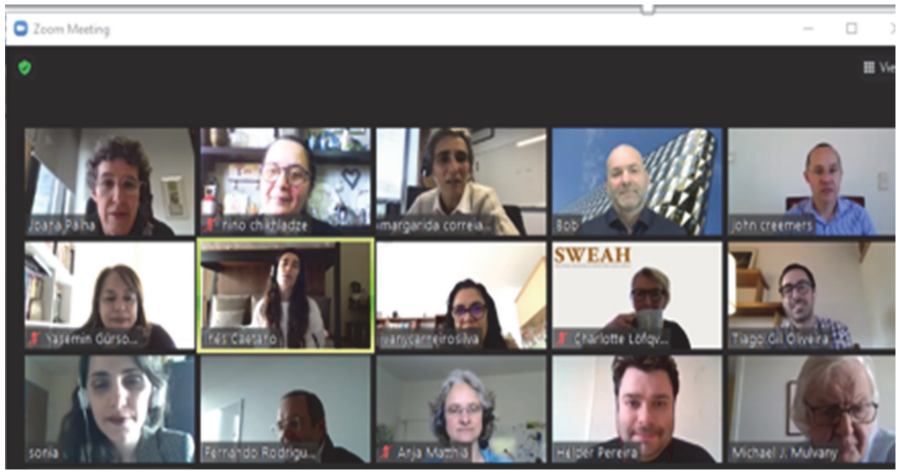

This work was presented on ORPHEUS online Conference in 2021.

Conference was hosted by University of Minho (Portugal).

DOCTORAL PROGRAMS IN PUBLIC HEALTH: ACCREDITATION STANDARDS FROM EUROPEAN AND NATIONAL PERSPECTIVES

SUMMARY

The paper overview the standards for evaluation PhD programs in Public Health. The aim of this work was to identify differences between national and European requirements for doctoral education and define the areas for future improvements. Two documents: Orpheus Standards for PhD education in biomedicine and health sciences in Europe and Best practice for PhD Training – were selected for comparative analysis.

The structure of the National Accreditation Standards for Higher Education programmes in Georgia are generally in compliance with the main domains of European requirements for PhD education in biomedicine and health sciences. The domain„PhD Thesis'' and some components in basic and quality development requirements of European documents are not covered by the national standards. Identified key points need to be addressed in order to harmonize national set of standards with European requirements for PhD programs. This will enhance the quality of PhD programs in biomedicine and health sciences, including PhD programs in Public Health in Georgia.

Keywords: doctoral programme, Public Health, standards, accreditation.

DEPARTMENT OF SOCIAL WORK
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DOCTORAL PROGRAMS IN SOCIAL SCIENCE IN THE REPUBLIC OF ARMENIA

Social Sciences and their description. Science has been a human activity from the very early phases of the development of civilizations. People have always been interested in examining the rules of the nature and their changes, step by step going forward to the development of the science and research. Today, the system by which research and development leads to new products is fundamentally different than it was, for example, in the nineteenth, and even in the twentieth century. To the role of the individual inventor has been added the power of organized scientific research and technological innovation. Organized research and development, which are increasingly international in character, have greatly increased the production of new knowledge[1].

Social Sciences is also going through its rapid development caused by the massive changes in the modern societies, especially in the rules of behavior, social organizations, value systems etc. Nowadays, social sciences and researches have great influence and important role in targeted policy making, social predictions and strategic planning. Nevertheless, there are several definitions of social sciences and it is hard to provide a comprehensive and a unique one. For example, one of the explanations of social sciences is the following definition: "any branch of academic study or science that deals with human behavior in its social and cultural aspects"[2].

[1] Science, Technology, and the Federal Government: National Goals for Near Area, https://www.nap.edu/read/9481/chapter/3.
[2] Social Science, https://www.britannica.com/topic/social-science

Another definition of social science is "a science devoted to the study of societies and the relations among individuals within those societies"[1].

Social science is also defined as a group of academic disciplines dedicated to examining society. This branch of science studies how people interact with each other, behave, develop as a culture, and influence the world[2].

Concerned with the human world and society, social sciences investigate the economy, human behavior, social institutions, and politics.

Though the definitions and the explanations are different but we can assume that they all emphasize its role in studying society, culture, human behavior and relations between them. Social scientists examine institutions like the government, the economy, and family; they also study how individuals and groups interact with one another and what drives human behavior.

The same difficulties of clear definitions we face while trying to present the branches of the sciences that are involved in the social sciences system and considered to be the categories of the latter.

Regarding to one of the approaches, social sciences involve the following categories: cultural (or social) anthropology, sociology, psychology, political science, and economics.

Another approach presents a bigger list of sciences including economics, sociology, anthropology, political science, international relations, management and business studies, social policy, social work, education, psychology, planning, demography.

It is important to mention that the changes arise also in the social sciences system and more and more categories of social studies are involved in the system based on the fact that the changes in the society and culture of the modern world brings to the necessity of new studies and new explanations. For example, African-American Studies, Latin Studies, Women, Gender, and Sexuality Studies, Latin American Studies and Middle Eastern Studies are, as a rule, also included among the social sciences.

Changes take place not only in the social sciences, but also in the education system of social sciences. PhD level is not an exclusion.

PhD level of higher education in Social Sciences. PhD or a doctor of Philosophy is generally the highest level of degree that a scholar can receive. Typically lasting 3-4 years, this program requires extensive studying and research work. This is an academic or professional degree that, in most countries, qualifies the degree holder to teach their chosen subject at university level or to work in a specialized position in their chosen field, as well as to do researches with the purpose of revealing

[1] The social sciences encyclopedia, https://books.google.am/books?id=S3zZ18tt3gkC&printsec=frontcover&hl=hy&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

[2] Social Science, https://www.investopedia.com/terms/s/social-science.asp
https://impactofsocialsciences/2014/01/20/social-sciences-converging-with-stem-disciplines/

the main problems in the field and presenting necessary recommendations for the changes and solutions.

The current researches show that graduates with PhD are internationally demanded workforce and have needed skills for tackling major societal changes[3].

Students can earn a PhD in various fields of study, including in social sciences.

PhD education in social sciences is mostly directed towards developing the students' knowledge in social traditional and contemporary theories, enhancing the development of critical thinking, as well as creating necessary research, planning and management skills[4].

PhD programs in the Republic of Armenia

Armenia has its universities from the early middle ages. The universities were established and functioned as an adjunct to the churches.

Higher education system of Armenia was recreated after Armenia got its independence and the first republic of Armenia was established. It was in 1918. That was the period when the first university was established in independent Armenia. That was Yerevan State University which now is one of the biggest and oldest universities in the region[5].

Since 1991, when Armenia regained its independence, some crucial reforms have been conducted in the higher education system of Armenia. As a result, at present we have 27 public and 31 private higher education institutions under the coordination of the Ministry of Education and Science, 6 universities under the supervision of other authoritative organizations, as well as 5 universities created as a result of the intergovernmental agreement between the Republic of Armenia and certain countries.

Now two principal laws regulate Armenian higher education: The Law on Education (1999) and the Law on Higher and Postgraduate Professional Education (2004). The latter sets forth the structure, the main principles of organization, funding mechanisms, and bases for systematic reform and improvement of higher education.

Currently, Armenia is also a full member of the Bologna process[6], that seeks to bring more coherence to higher education system across Europe. It established the European Higher Education Area to facilitate student and staff mobility, to make higher education more inclusive and accessible, and to make higher education in Europe more attractive and competitive worldwide. As part of the European Higher

[3] Review of the PhD in the Social Sciences, https://esrc.ukri.org/files/skills-and-careers/review-of-the-phd-in-the-social-sciences/

[4] Review of the PhD in the Social Sciences, https://esrc.ukri.org/files/skills-and-careers/review-of-the-phd-in-the-social-sciences/

[5] Official web-site of Yerevan State University, http://www.ysu.am/ysu/

[6] Armenia and Bologna Process, http://ehea.info/page-armenia

Education Area, all participating countries, including Armenia, agreed to:

- Introduce a three-cycle higher education system consisting of bachelor's, masters and doctoral studies,
- Ensure the mutual recognition of qualification and learning, periods abroad completed at other universities,
- Implement a system of quality assurance, to strengthen the quality and relevance of learning and teaching[1].

After signing the Bologna Declaration, the introduction of the three cycle education system has become one of its main objectives for Armenia. For achieving that objective, first the two cycle education system and related credit system were introduced as important factors for fostering the academic mobility. Then, in Bergen Communiqué the two cycle system was transformed into a three cycle system[2]: bachelor –4 years; master–up to 2 years, aspirantura (candidate of science) – 3 years.

As it is mentioned, 3rd level of higher education (aspirantura) system of Armenia remains different from the European practice and it is still familiar with some post-soviet countries higher education systems. But the situation is going to be changed as currently quite extensive activities are conducted in this field, in particular related to acknowledgment of necessity to introduce doctoral institutions. With that purpose, major reforms in higher education and research will be conducted during the upcoming years as the Government of RA has suggested new approaches and regulations for the higher education system, that are fixed and presented in the new bill "About the Higher Education and Science". The bill has undergone an amendment leading to a new edition of the law on "Higher Education and Scientific Research" in the form of a single legislative document.

According to that bill the post-graduate programs will be complied with all-European standards including them as a third degree of qualification in the higher educational system, and at the end PhD qualification will be granted. Training in a broad base of research skills, methodologies and theories will be the key elements of the new PhD programs in RA.

Cooperation of the Republic of Armenia and Europe for the development of PhD programs in social sciences in Armenia

Nowadays, Armenia has several PhD programs in social sciences. Some of them are PhD programs (aspirantura) in Sociology, Psychology, Political sciences, international relations, Economy, etc.

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[1] The Bologna Process and the European Higher Education Area, https://education.ec.europa.eu/levels/higher-education/inclusion-connectivity/bologna-process-european-higher-education-area

[2] The three-cycle education system in Armenia, https://www.osce.org/files/f/documents/e/c/182201.pdf

Still, many efforts are invested in the process directed towards the development of PhD programs in social sciences, also through enlarging the spheres of those studies. With that purpose assistance and collaboration with partner universities, especially from EU, have a significant role.

Armenia signed the Partnership and Cooperation Agreement with the EU in 1996, which shaped the legal basis for the Armenia-EU cooperation[3]. Since then, Armenia has actively participated in the EU funded projects, first through TEMPUS TACIS, then through TEMPUS, ERASMUS MUNDUS, Jean Monnet and presently through Erasmus+ program schemes.

In the framework of the 2014-2021 EU Erasmus+ program scheme, a number of significant projects are being currently supported with the involvement of the institutions from Armenia.

One of those projects is "Doctoral programs in Public Health and Social Sciences" project that is implemented within a Capacity-building in the Field of Higher-Education project funded by Erasmus+ Program. The project started in 2018 with 36 months' duration. The aim of the project is to provide necessary assistance to Armenia and partner countries for the development of a fully structured PhD program in Public Health and Social Sciences, particularly in Social Work.

The actuality of the project is substantiated by the fact that Though social work has been involved in the main list of the professions confirmed by the Ministry of Education and Science it still doesn't have PhD degree, which brings to the difficulties in ensuring the continuous of professional higher education in Social Work. Relatively the same situation exits in the Public Health sphere. The PhD degree in 147 Public Health which is provided within the specialization, called "Public health and organization of health care" doesn't allow specialists with non-medical background to apply and gain their PhD degree in Public Health. This makes strict limitations for public health profession development depriving the possibilities to use the whole potential of human resources in public health. Those issues create the necessity of developing new PhD programs in Public Health and Social Services/Social Work.

Taking into account that fact, the objectives of the project are:

1. establishment and harmonization of PhD programs in Public Health and Social sciences in Partner universities.
2. Development of the PhD programs' course structures,
3. Creation of online resources and e-learning courses for PhD students.
4. Training of staff in EU universities in teaching, IT knowledge, research skills and project supervision in EU universities.

[3] Higher Education in Armenia, https://supporthere.org/page/higher-education-armenia#:~:text=Relevant%20links-,The%20higher%20education%20system%20in%20Armenia,Postgraduate%20Professional%20Education%20(2004).&text=A%20new%20Law%20%E2%80%9COn%20Higher,in%20the%20autumn%20of%202019.

5. Development and submission for approval to appropriate authorities the passport and code of specialty.[1]

The project is not a unique one in Armenia that is directed towards enhancing and supporting the national efforts in PhD programs development, but it is one of the important and influential programs that can have its real input in the development of PhD programs in Armenia.

DOCTORAL PROGRAMS IN SOCIAL SCIENCE IN THE REPUBLIC OF ARMENIA

SUMMARY

Social sciences have always been considered as an important branch of the science, as they provide answers to the crucial questions like how the society functions and what are the main features of the society members' relations and behavior in concrete time and particular place. Nowadays the role of social sciences is getting more significant as the rapid changes in all societies and human life-being are crucial. At the same time the changes occur in the education system of social sciences as well. The Government of RA initiated significant changes in the higher education system. Particularly, 3rd cycle of the higher education (aspirantura) is going to be changed and complied with European standards[2]

The aim of the paper is to present main conducted and expected changes in the higher education system of Armenia, especially in the 3rd cycle, which is in the reform phase. The objective of the paper is also to describe the role of cooperation within international educational projects in enhancing the development of PhD programs in social sciences in Armenia.

Keywords: higher education, PhD programs, Social Science

[1] Official web-site of "Doctoral Programs in Public Health and Social Science" program. https://dpphss.am/projects-description/

[2] Official web-site of "Doctoral Programs in Public Health and Social Science" program. https://dpphss.am/projects-description/

DEPARTMENT OF EPIDEMIOLOGY
WEST KAZAKHSTAN MEDICAL
UNIVERSITY NAMED AFTER
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TRAINING OF SCIENTIFIC AND PEDAGOGICAL PERSONNEL IN DOCTORAL STUDIES AT THE KAZAKHSTAN MEDICAL UNIVERSITY NAMED AFTER MARAT OSPANOV

Introduction. The system of higher and postgraduate education in Kazakhstan over the years of independence has undergone a systemic reform, which was determined by the dynamic socio-economic development of the country, its entry into the global market, and the need to increase the competitiveness of national scientific personnel. For more than twenty years, new conceptual approaches ("education throughout life") have been formulated and are being promoted, in accordance with which a radical change in the educational model of higher education has been made. The Republic of Kazakhstan was one of the first in the post-Soviet space to introduce a credit education system (according to the Bologna Convention) and switched to a three-stage training system (higher basic education (bachelor's degree), higher postgraduate scientific and pedagogical education (magistracy), PhD doctoral studies). The key link in the three-stage training system is the program for the training of PhD doctors, since it is they who, according to their status, are called upon to set the general trend in the development of science, promote innovative projects and ensure high-quality modernization of the country in all directions. The three-level structure of higher and postgraduate education in Kazakhstan has been introduced since 2004. Since 2011, doctoral students who have completed the program of study and defended their dissertation are awarded the academic degree "Doctor of Philosophy (PhD)" by the Committee for Control in the Sphere of Education and Science (KKSON) of the Ministry of Education and science of the Republic of Kazakhstan on the basis of the decision of the dissertation councils for the defense of dissertations for the award of the degree of Doctor of Philosophy (PhD).

Purpose of the work: to present the experience of training scientific and pedagogical personnel in doctoral studies at a medical university in Western Kazakhstan.

At the West Kazakhstan Medical University named after Marat Ospanov (WKMU named after Marat Ospanov), doctoral studies have been carried out since 2012 in two educational programs: "Medicine" and "Public Health". For the entire period of implementation of the programs, 53 +10 doctoral students studied: 41 +8 for "Medicine" and 12 +2 for the program "Public Health". The training of personnel in PhD doctoral studies is carried out in accordance with the State Compulsory Standard for Postgraduate Education in Medical Specialties, annexes to the order of the acting Minister of Health and Social Development of the Republic of Kazakhstan dated July 31, 2015. No. 647 (with changes and additions as of 21.02.2020).

The educational program for the preparation of a Doctor of Philosophy (PhD) has a scientific and pedagogical components that provide fundamental educational, methodological and research training with the study of disciplines in the field of medicine. This allows graduates of doctoral programs to achieve a level of knowledge and skills that will be sufficient for them to fulfill leading positions in the development and implementation of research and educational programs in the field of health, not only within the framework of the country's market needs, but also within the framework of international cooperation. As a result of mastering the educational program of doctoral studies, the graduate has the opportunity of employment in universities of a medical profile, in institutions of the system of practical health care, research institutes. In the long term, persons who have received a PhD degree to deepen scientific knowledge, solve scientific and applied problems on a specialized topic can carry out a postdoctoral program or conduct scientific research under the guidance of a leading scientist chosen by the university.

The formation of responsibility and the development of the ability to learn throughout life is facilitated by the individual educational trajectory in mastering the educational program (EP) of doctoral studies, independent choice, depending on the need for the development of the relevant competencies of the disciplines of the university and the component of choice from the catalog of elective disciplines (QED), helping doctoral students to complete the dissertation research, additional types of training, participation of doctoral students in seminars, conferences, providing independence when conducting a search, in choosing a research topic, a scientific consultant, a place and terms, a scientific internship program, research and teaching practices, research work (R&D), independent implementation of dissertation research under the guidance of scientific consultants, writing publications, speeches, preparation, execution and defense of the thesis. Ultimately, the doctoral graduate is able to learn throughout life and demonstrate professionalism in relation to the various roles of researcher, educator, and in relation to the medical profession.

The University has a sufficient material and technical base, information resources, educational and information technologies, resources for the clinical training of doctoral students, conducting scientific research.

Scientific topics of doctoral students are part of scientific projects of departments, scientific and technical programs funded by the Ministry of Education and Science and the Ministry of Health. The university staff constantly takes part in competitive programs of grant and program-targeted funding. Participation in research work of both teaching staff and students ensures the unity of scientific, educational and educational processes.

The main criterion for the completeness of the educational process for the preparation of doctors of philosophy (PhD) (doctor by profile) is the mastering of at least 180 academic credits by a doctoral student, including all types of educational and scientific activities.

The development of the educational program is carried out by specialized specialists and is structured according to the principle of modular training. The programs of disciplines and modules are interdisciplinary and multidisciplinary in nature, providing training at the intersection of a number of fields of knowledge. EP consists of an invariant part – modules for compulsory study; and the variable part, that is, replaceable modules that take into account the needs of the labor market, employers and students. The EP of doctoral studies includes teaching and research practice. The practice is carried out with the aim of developing practical skills in scientific, scientific, pedagogical and professional activities.

When appointing scientific consultants, compliance with the requirements, knowledge of research methodology, research experience, including in funded scientific and technical projects, their qualifications, the presence of international relations, and the independent choice of a doctoral student of a domestic scientific consultant are taken into account. The total number of teaching staff – scientific advisers / consultants for the PhD doctoral / magistracy program is 213 people, including 28 doctors of sciences, 163 candidates of sciences, 22 PhD doctors. Web of Science / Scopus 2017 – 103, 2018 – 166, 2019 – 203, 2020 – 220.

Themes of doctoral students' dissertations must meet the following requirements: correspond to the main problems of the specialty in which the doctoral dissertation is being defended; be relevant, contain scientific novelty and practical significance. Prior to the approval of the dissertation topic, each doctoral student conducts a patent information search, together with the supervisor determines the basis for scientific research and research practice, and coordinates the dissertation topic with a foreign scientific consultant.

Qualified teachers with extensive research and teaching experience are involved in the implementation of the EP of doctoral studies. The university has a Center for Family Medicine, a Center for Continuous Professional Development, a

scientific and medical library in which training is carried out on the methodology of scientific research, the principles of evidence-based medicine, academic writing, search and work in international databases, which contributes to the formation of competencies corresponding to the doctoral program.

The scientific and technical base of the university includes equipment designed for molecular biological, molecular genetic, sanitary and hygienic, morphological, biochemical research. As part of the Scientific and Practical Center (SPC), there is a vivarium for keeping various types of laboratory animals required for research work. For the practical training of PhD doctoral students, bilateral agreements on cooperation between the university and the regional health departments of the regions of the Western region of Kazakhstan have been concluded.

As part of the educational programs of PhD-doctoral studies at ZKMU, national and international cooperation is envisaged, which should contribute to integration into the world educational and scientific space. Within the framework of the implementation of the project of the Ministry of Health of the Republic of Kazakhstan "Modernization of medical education" of the state program for the development of health care of the Republic of Kazakhstan "Densaulyk" for 2016-2019, Poznan University of Medical Sciences named after K. Martsinkovsky (PUMN) was identified as a strategic partner of West Kazakhstan Medical University (PUMN) with which a Memorandum was signed in the field of education, health care, academic and scientific activities. As part of a strategic partnership, experts of the PUMN conduct consultations on the modernization of the plan to improve the scientific competence of teachers and scientific activities of ZKMU, modernize and develop the basic scientific infrastructure of the university and its divisions, conduct seminars, train teaching staff and students under master's and doctoral programs. PUMN professors are scientific consultants for our 5 doctoral students.

The university cooperates with the Association for Medical Education in Europe (AMEE), is included in the directory of medical schools of the World Health Organization (World Directory of Medical Schools, WHO), in the International Handbook of Universities, UNESCO, the Avicenna directory of medical schools, published University of Copenhagen and supported by the World Federation for Medical Education and the World Health Organization (The AVICENNA Directories).

Also, within the framework of the visiting professors program, consultative work with doctoral students is carried out. Over the past three years, the university was visited by about 130 visiting professors from foreign universities: from Europe (Poland, Lithuania, Italy), South Korea, and the USA. For Kyrgyzstan, Slovenia, Bulgaria, Egypt, India and CIS countries such as Russia, Ukraine, Kyrgyzstan, Tajikistan.

The internationalization of PhD-doctoral scientific and educational programs is provided for by the training of scientific and pedagogical personnel and professional

personnel. The double scientific consultation on the doctoral student's research work is a reflection of the internationalization at present. The choice of promising directions in the field of theoretical and clinical medicine and public health is the basis for the appointment of scientific consultants from partner universities for PhD doctoral dissertation research. At the level of a domestic and foreign scientist, scientific consultants consider the topic, its relevance and the methodology used by the doctoral student to solve problems for the set research goal.

At the university, PhD students are trained in cooperation with foreign partners, such as Poznan University of Medical Sciences, Yerevan State Medical University M. Heratsi (Armenia), Sh. Rustaveli Batumi State University (Batumi, Georgia), Lithuanian University of Health Sciences (Lithuania, Kaunas), Tblisi State Medical University, Tblisi TSMU (Georgia), Riga Medical University (Riga, Latvia) and other foreign universities.

Joint training of doctoral students is carried out on the basis of a Memorandum / agreement with foreign universities on the topic of the dissertation. For doctoral students after they have mastered the credits of the disciplines of the theoretical part of the program at ZKMU named after Marat Ospanov is given the opportunity to carry out an internship at a foreign university and master the methodology or carry out statistical processing of the research results obtained. Joint work with other universities and coordinated research and educational programs allow students to offset loans for research practice and research.

Opportunities are being explored to provide joint PhD doctoral programs with degrees from both universities.

The results of scientific research are documented in the form of scientific publications, patents, copyright certificates. The number of articles in international peer-reviewed journals in the Web of Knowledge, Scopus, Springer in 2017 – 40; in 2018 – 50, in 2019 – 53, in 2020 – 60. Scientific work of doctoral students can be carried out at the university using the university's own laboratories, where modern research methods, principles of equipment operation, and others are mastered according to contracts. Scientific internships for doctoral students also allow you to get acquainted with the research methodology in the laboratories of foreign universities.

The Scientific Medical Library assists students in finding citation indicators for publications indexed by the Russian Science Citation Index (RSCI), WebofScience, Scopus, conducts their training on working with scientometric databases, provides the Virtual Bibliographer service and others. To solve the main tasks, the university library cooperates with the Association of Libraries of Higher Education Institutions of the Republic of Kazakhstan, the International Association of Users and Developers of Electronic Libraries and New Information Technologies (EBNIT) and since 2020 is a full member of the Association of Medical Libraries of the CIS.

At the request of doctoral students, online ordering of documents from the collection of the TsNMB im. Sechenov. An electronic document delivery service has been introduced. The library fund has programs for self-training of teachers and students in the use of information and communication technologies. According to the topics of publications, doctoral students are trained in working with electronic libraries, the search for scientific and medical journals on the topic of publications, scientometric indicators, etc. To check the correctness of borrowings, the licensed program "Antiplagiat" is used. Updating of documents in the field of education, science and healthcare is carried out by subscription and daily updates. The Paragraph Database is the most complete informational set of legislative and other regulatory legal acts.

Thus, ZKMU named after Marat Ospanov has ten years of experience in implementing EP doctoral studies in two specialties, based on the analysis, it should be noted such achievements as: the doctoral program is sufficiently structured, a sufficient and high level of development, replenishment and renewal of the library fund and electronic resources, maintaining a balance between theoretical and practical activities during the course of the EP, the learning outcomes are interrelated and based on Dublin descriptors, taking into account ECTS and the qualifications framework of the NQF, and EHEA, a competence-based approach to the formation and implementation of an educational program, the presence of modern equipped scientific and educational laboratories for the implementation of the educational process and scientific research, continuous improvement of the material and technical base of the university.

But at the same time, there are tasks that require their solution, namely: insufficient level of knowledge of the English language of students and scientific supervisors, an insufficient number of managers who meet the requirements for scientific supervisors of doctoral students, a small amount of applied scientific research on public health.

The staff of ZKMU named after Marat Ospanov is making efforts to solve them, which undoubtedly is the driving force for further improving the training of doctoral students in these specialties.

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TRAINING OF SCIENTIFIC AND PEDAGOGICAL PERSONNEL IN DOCTORAL STUDIES AT THE KAZAKHSTAN MEDICAL UNIVERSITY NAMED AFTER MARAT OSPANOV

SUMMARY

The article presents the experience of training scientific and pedagogical personnel in doctoral studies at a medical university in Western Kazakhstan. In the West Kazakhstan Medical University named after Marat Ospanov (ZKMU named after Marat Ospanov), doctoral studies have been carried out since 2012 under two educational programs: "Medicine" and "Public Health". The training of personnel in the PhD doctoral program is carried out according to the State mandatory standard of postgraduate education in medical specialties. The development of the educational program is carried out by specialized specialists and is structured according to the principle of modular training. Within the framework of the PhD-doctorate educational programs at ZKMU, national and international cooperation is provided, which contributes to integration into the world educational and scientific space. At the university, PhD students are trained jointly with foreign partner universities on the basis of the Memorandum and consulting work with doctoral students is carried out within the framework of the "Visiting professors" program. The University has sufficient material and technical base, information resources, educational and information technologies, resources for clinical training of doctoral students and conducting scientific research.

Keywords: Kazakhstan, medical University, doctoral studies, educational program, resources, international relations.

FACULTY OF ECONOMICS
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DOCTORAL EDUCATION IN GEORGIA: EVIDENCE FROM STATISTICAL TRENDS

The modern economy of developed countries is an innovative economy, which is achieved through the systematic interaction of the up-to-date knowledge, innovations and technologies, as well as entrepreneurial skills. Qualified scientific personnel, educated at the doctorate (PhD), third cycle of higher education, generate such fundamentals for the creation and development of an innovative economy, as up-to-date knowledge, inventions, and technologies. Exactly this is the first step in building a knowledge-based economy, which proceeds with further participation in research activities and introduction of knowledge to the wider community.

The main objective of the article is a statistical analysis of the quantity and structure of doctoral (PhD) students in Georgia, in order to identify relevant long-term trends and make their assessment.

The article discusses provision of various field with competent scientific staff, in accordance with separate discipline and educational programmes, including health and social sciences.

The official data of the National Statistical Office of Georgia were used and a long-term perion, namely a 13-year time series from 2007 to 2020, was studied. Methods of descriptive statistics were used for trend analysis.

In 2007-2020 PhD students number is characterized by an increasing trend (Table №1). Though their share in the total number of students in 2020 increased by just 1.8 p.p. compared to 2007, however, the absolute number of PhD students increased significantly (from 786 to 4010), i.e. by 5.1 times (by 510.2%) in the same period.

Table №1. Number of PhD students and their share in total number of students, %

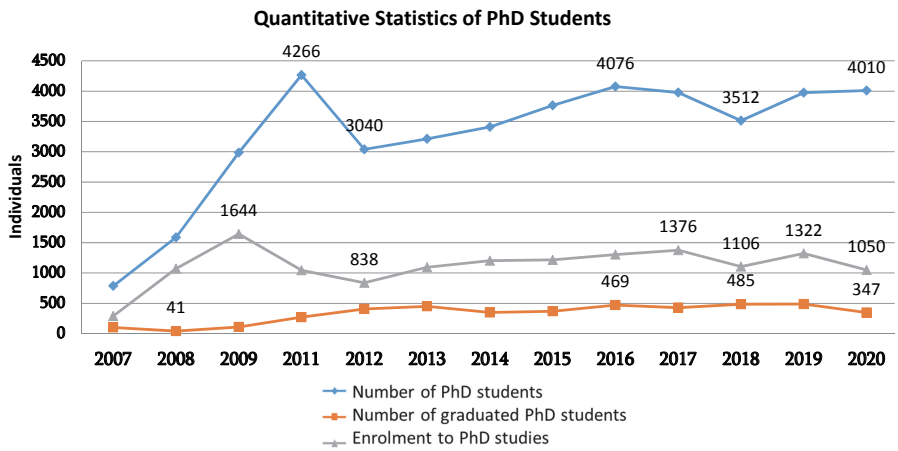
Years	Number of PhD students	Share of PhD students in total number of students,%	Basic growth rate (2007),%
2007	786	0.7	-
2008	1588	1.7	202.0
2009	2986	2.9	379.9
2011	4266	4.5	542.7
2012	3040	2.8	386.8
2013	3213	2.7	408.8
2014	3410	2.7	433.8
2015	3765	2.8	479.0
2016	4076	2.9	518.6
2017	3977	2.8	506.0
2018	3512	2.4	446.8
2019	3976	2.7	505.9
2020	4010	2.5	510.2

Source: *The first column data are from the National Statistics Office of Georgia (https://www.geostat.ge/ka), the data for columns 2 and 3 are calculated by the author.*

In the study period, the highest number of PhD students was observed in 2011 and 2016 (4266 and 4076, respectively).

Along with the analysis of the total number of PhD students, it is interesting to see the statistics of enrollment and number of graduated students (Figure №1), which clearly shows that the long-term trends in enrolled, graduated students (who had submitted and defended of the PhD thesis) and their absolute numbers differ significantly.

Figure №1. Dynamics of absolute measures of PhD students in 2007-2020.



Source: *Compiled by the author based on the data from National Statistics Office of Georgia (https://www.geostat.ge/ka).*

Tendency to change in the number of graduated PhD students is stationary, especially in 2011-2020, and is not characterized by a wide range of variation. A similar trend was also observed in the long-term trend of their enrollment in the same period. But if we look at the absolute values of different years and compare the two tendencies, it turns out that their single values differ greatly. So, for example, the number of PhD students graduating in 2020 is 3 times less than the number of those enrolled in the same year. If we compare the total number of PhD students and the number of graduates, this difference becomes very significant. It turned out that in 2020, only one in 12 PhD students (347 out of 4010) graduated this educational cycle by submitting and defending a PhD thesis. The situation was even worse in 2011, when only 6% of the total number of PhD students graduated their PhD studies by submitting and defending their PhD thesis. During the entire study period, approximately 11% of the total number of doctoral students completed their PhD studies.

The analysis of the number of PhD enrolled students, graduated PhD students and their absolute number in general by fields, reveals that their number is the highest in the following three categories: in the field of social sciences, law and business, and the lowest in the field of agriculture and veterinary program.

The National Statistics Office of Georgia distributes PhD students according to the following categories:

- Education
- Humanities and Arts
- **Social Sciences,** Business and Law
- Sciences
- Engineering Sciences, Industry, Construction
- Agriculture and Veterinary Medicine
- **Health and social care**
- Services.[1]

The distribution of PhD students by educational categories is presented in the Table №2 and Figure №2.

[1] http://pc-axis.geostat.ge

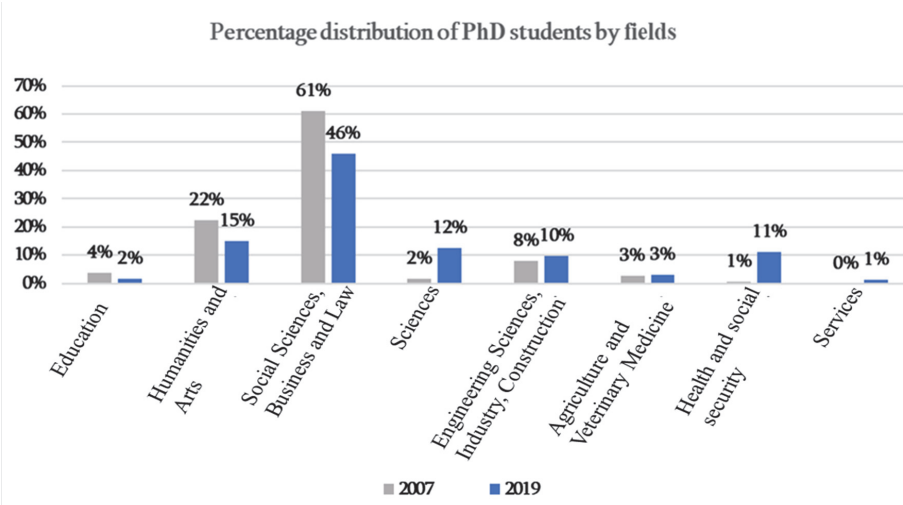
Table №2. Distribution of PhD students according to educational programmes

Years	Education	Humanities and Arts	Social Sciences, Business and Law	Sciences	Engineering Sciences, Industry, Construction	Agriculture and Veterinary Medicine	Health and social security	Services.
2007	30	176	480	12	62	22	4	-
2008	88	340	709	195	107	69	74	6
2009	141	628	1046	343	373	192	195	68
2011	135	756	2096	564	385	65	168	97
2012	235	634	919	607	344	5	212	84
2013	164	570	1304	508	338	15	255	59
2014	143	612	1376	517	391	34	227	110
2015	153	686	1639	526	352	44	255	110
2016	132	713	1784	629	394	68	290	66
2017	98	702	1804	512	408	74	327	52
2018	46	577	1542	488	379	71	357	52
2019	78	557	1884	478	407	86	419	67
2020	61	598	1841	497	388	124	447	54

Source: *The table is drawn up by the author based on data from the National Statistics Office of Georgia (https://www.geostat.ge/ka).*

By 2020, the largest number of PhD students, which reached 1841 and accounted for 45.9% of total number, was studying in the fields of social sciences, business, and law. During the study period, the number of PhD students in healthcare and social care programmes increased by almost 112 times (from 4 to 447), which is the highest increase among other programmes.

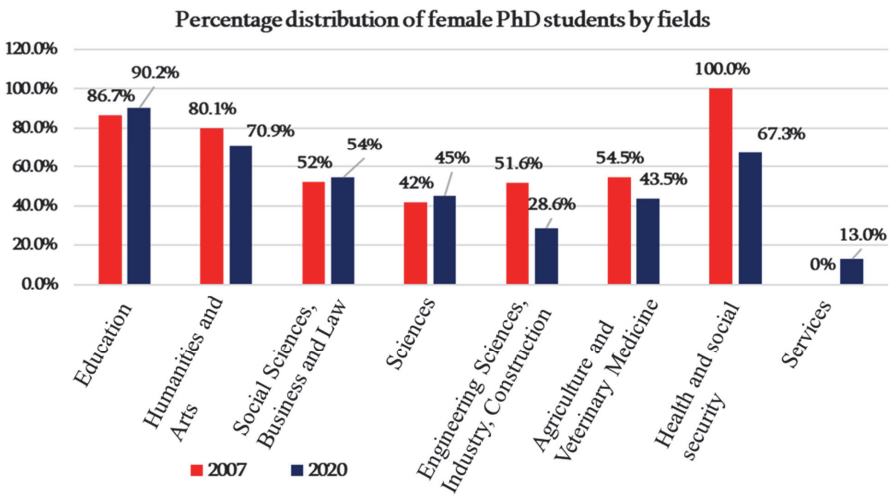
Figure №2. Percentage distribution of PhD students by fields



Source: *Diagram is compiled by the author.*

The following trends are revealed while assessing the same indicators in terms of gender: The proportion of female PhD students in the services, education, social sciences and sciences (from 42% to 45%) has increased significantly since 2007, while the proportion of female PhD students in health and social sciences, humanities and engineering has decreased (Figure 3).

Figure №3. Percentage distribution of female PhD students by fields



Source: *Diagram is compiled by the author.*

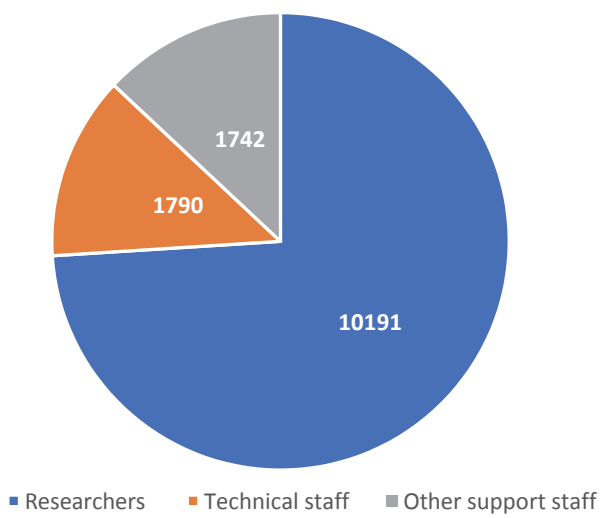
In the case of female PhD students, a positive growth rate was observed in all areas except education. Compared to 2008, the number of PhD students in education has decreased by 20%. Healthcare and social care were recorded to have the highest growth rates, followed by social sciences, business, and law. In 2020, female PhD students the growth rate in science reaches 122% compared to 2008, thus clearly indicating an increase in the women involvement in the named fields.

The above figures will be different if the growth rate is measured in relation to the 2008 as a baseline rate. In particular, the rate of humanities was increased by 441%, of healthcare and social care by 307%, while in sciences itself by 129% in 2020. The decrease is observed in the fields of social sciences and law (-45%) as well as engineering, industry, construction (-50%), education (-31%) and agriculture and veterinary medicine (-22%).[1]

A study of the number and structure of scientist-researchers revealed that in 2019, a total number of 10,191 researchers were involved in research activities in Georgia and 52% of them or 5,300 were female, and 48% (4,891) are male.

Among researchers, 71% of their total number hold an PhD (academic doctor) degree (7,277), 27% of researchers (2,726) hold a master's degree and only 2% hold a bachelor's degree (Figure №4).

Figure №4. Personnel employed in research work, 2019



Source: *National Statistics Office of Georgia https://www.geostat.ge/ka*

Approximately equal numbers of male and female hold the PhD degree (71.3 and 71.4%, respectively), 27.12% of male researchers and 26.4% of female researchers

[1] Khabeishvili T. Statistics of education and quantity of scientific personnel in post-Soviet Georgia. Master Thesis, TSU, Tbilisi, 2021. p.44.

have a master's degree, and 1.55% of male and 2.1% of female hold a bachelor's degree.

It should be noted that in 2019 a significant part of researchers (27.76%) are aged over the retirement age (65 years and older). The number of young researchers (under 35) is far behind the number of older researchers and their share reaches only 12.83% (Table №3).

Table №3. Distribution of the number of researchers by age groups, 2019

Age	Less than 25	25-34	35-44	45-54	55-64	65 and over
The absolute number of researchers	111	1 197	1 907	2 102	2 045	2 829

Source: *Table is drawn up by the author based on the data from National Statistics Office of Georgia. (https://www.geostat.ge/ka).*

Statistical analysis of the researchers distribution by fields revealed that every fourth of them, amounting 23.5% (2398), works in the field of natural sciences. The field of natural sciences is followed by researchers employed in social sciences and then, come the researchers employed in the field of engineering and technology (21.3 and 17.5%, respectively). The smallest number of researchers are employed in agriculture and veterinary medicine (2.3%).

Statistical analysis of gender distribution of personnel involved in research activities by fields reveals the dominance of a number of female researchers in most areas (Table №4). For example, among researchers in the humanities and arts, female researchers account for more than 2/3, or 68%, and the remaining 32% are male. The number of female researchers employed in the medical and health fields is almost the same (66%). As for male researchers, their share in comparison with women is especially high in the natural sciences and amounts to 67%. The proportion of male researchers also dominates over females in engineering and technology.

In the social sciences, the proportion of male and female researchers is nearly equale (48 and 52%, respectively). The ratio is almost the same in agriculture and veterinary medicine (45 and 55%, respectively).

Table №4. Researchers' breakdown by gender and by field, 2019 (%)

Field / Gender	Natural sciences	Engineering & technology	Medical and healthcare sciences	Agriculture and veterinary medicine	Social sciences, business and law	Humanities and Arts	Not identified
Male	67	53	34	45	48	32	53
Female	33	47	66	55	52	68	47

Source: *The table is drawn up by the author based on data from the National Statistics Office of Georgia (https://www.geostat.ge/ka).*

CONCLUSION

During the years 2007-2020, the number of people in Georgia who wished to continue a third-cycle education increased, especially among women.

Comparative analysis of enrollment to doctoral (PhD) studies, graduated PhD students and their absolute numbers in general by separate fields revealed that in the fields of *social sciences, law and business* their number is highest.

Increase in the number of PhD students in doctoral programmes in *Healthcare and Social Security* is much greater than in the rest of the educational programmes. Despite this trend, only 11% of the total number of students completed PhD studies in 2007-2020. The low percentage of PhD graduates necessitates more investigation into the underlying factors.

Distribution of research personnel by fields reveals the prevalence of female researchers in all fields; for example, the number of female researchers in medicine and health reaches 66%. It is noteworthy that the share of young researchers (up to 35 years old) in the overall structure is small (for example, in 2019 – 12.83%).

The peculiarities identified in study indicate the need for an effective policy to promote activities of PhD students and young researchers in the third-cycle education, as well in research and science.

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DOCTORAL EDUCATION IN GEORGIA: EVIDENCE FROM STATISTICAL TRENDS

SUMMARY

The article presents the absolute number and structure of doctoral (PhD) students as the primary source for replenishing academic and scientific personnel in Georgia during the period 2007-2020. The share of PhD students in the overall number of students is estimated, as well as the growth rate of their number during the study period. The long-term trends in the total number of doctoral students, as well as the number of applicants and graduates were identified and compared. Changes in long-term quantitative trends were detected and assessed both in terms of PhD students in general and in a gender perspective. The distribution of PhD students across the field and study programmes is analyzed, extreme values are determined and variation coefficient are calculated.

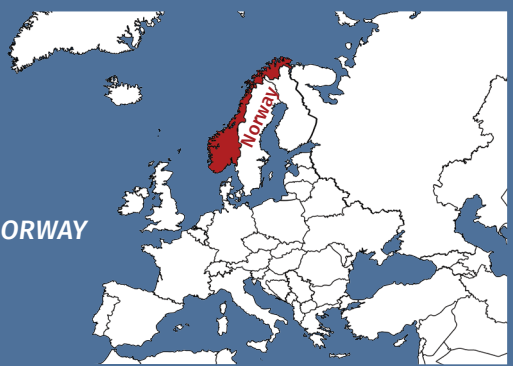
The analysis revealed significant inequalities in the distribution of PhD students in terms of both scientific directions and educational programmes.

Keywords: doctoral (PhD) student, statistical analysis, structure of PhD students, variation.

PART 2.

Practice in Public Health and Social Services

DEPARTMENT OF COMMUNITY
MEDICINE
FACULTY OF HEALTH SCIENCES
THE ARTCTIC UNIVERSITY OF NORWAY



Toralf Hasvold

University of Tromsø. The Arctic University of Norway — Norway

PUBLIC HEALTH IN PRACTICE

To understand public health, we need to start with the definition of good health. According to WHO, health is: *"A state of complete physical, mental and social wellbeing, good quality of life, not merely absence of diseases"*

The founder of the medical faculty at University of Tromsø, Norway, Professor Peter F Hjort (1924-2011) describes health as: "*the ability to cope and adjust daily life to the many challenges of the life"*

My own understanding of good health is: "*- the feeling of being well with the given circumstances"*

Public health is the health status in a population or a group of people, and use means to improve the people's health and wellbeing, preventing diseases, reducing risk factors of diseases and injuries, and promote health on order to build strength to resist diseases. The health status will be assessed by objective biological parameters, and subjective self-assessments of health and quality of life.

Historically the development of public health has gone through 3 phases.

PHASE 1:

Focuse on preventing infectious diseases. Long before they knew about bacteria and virus, they understood that isolating the diseased reduced the spreading of the disease.

With the knowledge of bacteria and virus, hygiene was developed as an important subject in medicine. This reduced the incidences of epidemics.

The most important breakthrough of treating infections was the discovery of penicillin, and other antibiotics. Medicine could control more or less all bacterial diseases. By the development of vaccines, many virus diseases were under control. Epidemics of new virus could be reduced and stopped by constructing new vaccines. WHO's global vaccination programme eradicated smallpox in the whole world by 1979.

PHASE 2:

After the infectious phase, the public health measures went into the second phase, reducing non-infectious diseases, like cardio-vascular diseases and cancer. This was a different challenge since reducing and prevention of these health problems were depending on lifestyle more than health care. Legal regulation of smoking in public places and restaurants has been of the most effective political action to reduce cardio-vascular diseases and cancer globally.

PHASE 3:

When life-quality and wellbeing were accepted as dimensions of health, this became the third phase in public health history. The first bases for this were The Ottawa Charter (WHO) in 1986. This charter emphasised:

- Building healthy public policy.
- Creating supportive environments.
- Strengthening community action.
- Developing personal skills.
- Re-orienting health care services toward prevention of illness and promotion of health.

The WHO developed a framework for country action for "Health in All Policy" (HiAP) in the Helsinki conference in 2013. Health in All Policy means that all sectors in the governing system at all political levels (municipality to stat) should analyze and reflect on the health effect of all political decisions. The conference declared the strategic reasons for integrating health considerations into public policymaking. These included:

- to address gaps in health, health equity, or conditions for health systems' functioning and sustainability that can only be addressed by multisectoral approach
- to support other sectors in developing policies within their own remit that optimize co-benefits and minimize negative consequences on health
- to support broad government initiatives that need health sector involvement or leadership to succeed while also contributing to health objectives
- to enable intersectoral responses to health crisis

These three phases in the history of public health development, are all equally important today in order to promote good public health.

ASSESSING AND DESCRIBING THE PUBLIC HEALTH

When describing or assessing public health in a population, the population must be defined; – a global, stat, region, municipality, age group, gender, religion, ethnicity, or other group specifications

In modern medicine there are several special fields of sciences related to public health.

EPIDEMIOLOGY

Epidemiology is the method used to find the causes of health outcomes and diseases in populations. What is the health status in a population, what are the diseases in the population, what are the risk factors for being ill, what are the factors explaining that some people get the diseases, and others don't?

In practical scientific terms epidemiology is a systematic data driven description of the public health in certain populations or comparing public health in different population. Epidemiology methods is also used to study how often and why diseases and accidents occur in different groups in the population.

COMMUNITY HEALTH

The term community health is used not only describing the health tatus in a community but is also pointing to who have the responsibility to promote health and prevent diseases and accidents. To be able to improve health in a community, epidemiological methods have to be used to expose the health status, and specific problems in the community, as well as to understand how to deal with the problems. Poor health in a population may be a mix of individually unhealthy lifestyle and environmental and living conditions.

The policy makers have the responsibility to make decisions to improve public health as well as avoiding decisions that may be harming the public health.

Public health in practice starts with making a plan. The plan must have a target population within a geographic area or defined by age-groups, gender, profession, religion or other characteristics.

Any target population must be scrutinised as to the health status as well as the risk factors for poor health. Analysing the health threatening factors in the target population must have a global and national perspective.

THE GLOBAL PERSPECTIVE

The pandemic with covite-19 virus is an example of a global risk factor which have to be handled at national and local governing level. In the end of this chain of responsibility for practical actions to cope with the pandemic is the local health care.

The public health treath from environmental changes like air pollution, flooding, avalanche and other natural disasters. Some of these public health threatening disasters cannot be prevented, but proper preparedness can reduce the effect of it.

THE NATIONAL, REGIONAL AND LOCAL LEVEL

To develop a society of fairness and equity is the governments' responsibility, which will promote health.

Laws and regulations are also important means to secure the population and reduce accidents on the road and at working places.

THE PERSONAL RESPONSIBILITY

Lifestyle and diet habits are personal responsibilities, but the state must provide information about healthy lifestyle and use price mechanisms to reduce smoking and promote healthy nutrition. Regular physical activity is important for keeping good health at all ages. The society must provide areas and possibilities for exercising physically for all ages, gender and abilities.

Source: *https://www.fhi.no/en/op/hin/*

HOW TO REALIZE ALL THESE OBLIGATIONS IN PRACTICE?

The state should make it obligatory for all municipalities to make a public health plan.

KNOWLEDGE NEEDED TO IMPROVE THE PUBLIC HEALTH

The epidemiological knowledge needed:

- Knowledge of the main health problems of the population
- The risk factors and the mechanisms of the main health problems
- Knowledge of effective means to preventing health problems and promoting good health

THE STRUCTURE OF A PUBLIC HEALTH PLAN

- Identify a focus area for promoting better public health
  - Describe a realistic aim
  - Define who to be responsible for this
  - What can be done in practice, a list of measures
  - How to evaluate the progress after 5 years

Some examples:

Physical activity

- *The aim is to get as many as possible to be physical active as part of their lifestyle. Facilitate organized activity specially for people with physical or psychological handicaps, or people living very passively for several reasons.*
- *Responsibility*
  - *The municipality in collaboration with private organisations*
- *Practical means*
  - *Promote physical activity in kindergarten and schools*
  - *Build lanes for walking and biking*
  - *Prepare walking paths in parks and mountains, both summer and winter. Facilitate paths for wheelchairs and for families with small children.*
  - *Prepare playgrounds*
  - *Provide transport to swimming-pools for people without own transport*

- *Organize physical activity groups for elderly*
- *Organize dances for elderly*
- *Time in swimming-pools for swimming and play for elderly*

Cardio-vascular diseases (CVD)

- *The aim*
- *Reduce the incidence of cardio-vascular diseases*
- *The responsibility*
  - *The municipality*
  - *The medical providers*
  - *Private health promoting organizations*
- *Some means to reduce the incidences of cardio-vascular diseases*
  - *Teach and promote healthy lifestyle in kindergartens and schools*
  - *Health information to the general population about preventing CVD*
  - *To screen the population for risk factors of CVD*
  - *Lifestyle guiding to the detected population at risk*
  - *Diet and nutrition advice to reduce hypertension and high cholesterol profile*
  - *Facilitate for physical activity for all age groups*

Other ideas of topics to be handled according to the public health plan structure given in the examples above

- *Quality of life and well being*
- *Coping with chronic diseases, handicappers, temporarily ailments*
- *Social isolation*
- *Dementia*
- *Drug abuse*
- *Unemployment*
- *Traffic security*
- *Securing working places*
- *Reducing poverty*
- *Preventing house fire*
- *Preventing fall accident among elderly*
- *Stop smoking*
- *Reduce obesity*
- *Reduce cardio-vascular diseases*
- *Reduce diabetes II*
- *Plan to stop epidemic diseases*

To improve the health status and promote the wellbeing, the success formula includes strategies based on best health and epidemiological science. It is important that the state government as well as municipalities have focus on the health effects in all political decisions, and on health promotion, reduction of health risks, and develop a society with fair equity in social economy and health care.

PUBLIC HEALTH IN PRACTICE

SUMMARY

This article discusses the role of public health practice in assessing and improving the health status of populations. There have been three phases in the history of public health, which are all equally important today: 1) phase 1 – focusing on prevention and control of infectious diseases; 2) phase 2 – focusing on prevention of non-infectious diseases; 3) phase 3 – starting with The Ottawa Charter in 1986, the focus started to shift towards health promotion and building healthy public policies. Several science fields are closely related to public health practice, for example, epidemiology and community health. Epidemiology provides important knowledge and evidence that can be used to improve the public health. The factors affecting health of population can be analyzed on the global, national, regional and local levels. This knowledge is then used when developing a public health plan. An effective public health plan is crucial for public health in practice. The article also discusses the responsibility of the policy makers, the state government and municipalities in developing a public health plan. Lastly, some specific examples are provided in order to show the structure of a public health plan and how it may be trying to address various public health topics.

Keywords: public health, practice, history, health care.

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FORMATION OF THE PUBLIC HEALTH SYSTEM IN UKRAINE

The main strategic goal of health systems, communities, countries and society is to ensure a high level of public health and welfare. Successful realization of this goal requires taking into account many components of health, which is considered as a result of complex dynamic influences generated by numerous determinants. Also, awareness about the dependence of human health on socio-economic, epidemiological, environmental factors is important.

Healthcare systems should solve many difficult problems and face many complex challenges for public health, the answers to which must be substantiated and scientifically proven. Current healthcare challenges are manifesting at various levels, including global (COVID-19 pandemic, climate change), regional (European aging, non-communicable disease epidemics, migration, etc.), national and local. However, many determinants of health are often beyond the control of the health sector, which can be influenced only by integrated direction of the various similar sectors.

It is obvious that we need some new approaches to solving healthcare problems, new partnerships, strategies and mechanisms of action under conditions of the growing interdependence of health and leading determinants in a complex healthcare circumstances.

Prospects for successful human development in the global, regional, national and local levels are mostly determined by the validity of development strategies and the sequence of their implementation. The basic document that outlines the

direction of social development on a global level is the Sustainable Development Goals. This document was included in the 2030 Development Agenda and adopted by world leaders at the historic UN Summit in 2015.

Ukraine has developed a national Sustainable Development Strategy until 2030, which is consistent with the global document and the Sustainable Development Strategy «Ukraine – 2020» and the Renewed Sustainable Development Strategy of the European Union (EU) in accordance with the world guidelines. This document is a base that defines strategic directions for long-term development of Ukraine and the integration of development goals into national plans and programs. The strategy includes 17 goals. The goal 3 «Good health and well-being» contains a number of important objectives, including stopping the HIV/AIDS and tuberculosis epidemics, reducing premature deaths from non-communicable diseases, ensuring general quality immunization of the population, reducing tobacco consumption, etc.

Effective disease prevention, life prolongation and health strengthening of the population depend on good organized actions taken by government agencies and collective actions of the whole society according with world experience. This approach is used for strengthening, preserving and protecting of the health population. It is implemented by the public health service, which has been functioning successfully for decades in many countries around the world.

The strategic European document «Health 2020. A European policy framework and strategy for the 21st century» mains the priority of public health development. Investments in the institutional structure of public health and strengthening organizational and stuff resources, improving health care, health promotion, and disease prevention are recognized as important aims. Traditional approaches include public health analysis, epidemiological surveillance, health promotion, prevention, communicable disease control, environmental protection and sanitation, disaster preparedness and response, health hygiene, etc. Modern approaches include social determinants, social health gradient and strategic management of health.

The European capacity building plan and public health services contain a forward-looking vision for public service in the 21st century and a base for action.

The formation of a modern public health service in the context of reforming Ukraine's health care system take into account WHO recommendations and international experience. In accordance with the principles of Ukraine state policy and international documents signed by Ukraine, the country has begun construction of a new modern European health care system, which includes public health service as an integral part. The process of its formation involves studying and taking into account the positive experience of other countries and WHO recommendations. The National Reform Strategy for Ukraine 2015-2020 identified the public health care system development as one of its priorities [4]. The implementation of such

important task must be carried out in accordance with the international documents, first of all with «Health 2020. A European policy framework and strategy for the 21st century».

The priority of public health building in Ukraine was enhanced by the adoption of a strategic course of European integration and signing of an association agreement between the EU, the *European Atomic Energy Community* and their member states [1-3]. Article 22 «Public Health» of the Association Agreement between Ukraine and the EU provides that all participants will develop cooperation in the health care direction to improve its safety and human health protection as a precondition for sustainable development and economic growth [1].

The implementation of the provisions of global and regional strategic documents in health care field and development of public health services is realized in the Concept of development of the public health system, approved by the Ukrainian government in 2016. The need for public health services development arise because of health condition of population in Ukraine, existing challenges and threats, directions of development strategy for the national health care system and international obligations.

It is known that Semashko model of health care system in Ukraine was characterized by centralization of management, state funding, extensive development of the network institutions. It was aimed at maintaining hospitals, focused mainly on treating patients with insufficient investment in prevention sector. In such conditions, the needs of a healthy population were not taken into account. That did not allow to control and influence on the incidence. The functions of the public healthcare system were divided among various services. The State Sanitary and Epidemiological Service took a key position and focused mainly on the control of infectious diseases by regulating risk factors and providing inspections of sanitary legislation compliance. At the same time, the implementation of epidemiological surveillance did not correspond to modern approaches. There was a lack of technologies to improve the health of the population. Total control of sanitary facilities has led to a deterioration of the business climate in the country and has not helped to reduce the incidence of the population. Insufficient attention has been paid to monitoring, analyzing and assessing the risks to public health. The extensive laboratory network had outdated laboratory equipment without of research quality control systems and standard operating procedures because of insufficient material support.

Public health functions were performed by other central and local executive organizations, including the ministries of education, agrarian policy, infrastructure, regional development, youth and sports, the State Environmental Inspectorate, and the State Emergencies Service together with the State Sanitary Epidemiological Service. However, effective interagency cooperation between State Sanitary Epidemiological Service and the Ministry of Health (MOH) of Ukraine was absent.

It is necessary to indicate the unstructured system of disease reporting among other problems of preventive services before the reformation period. These

problems also included the existence of parallel surveillance systems for individual infectious diseases; lack of information systems for accounting, monitoring of diseases in real time; insufficient funding of institutions; formal involvement of civil society, business entities, public and charitable organizations in the formation and implementation of public health policy; lack of integration of medical science into the world scientific space, etc.

The need to create a modern public health service in Ukraine was due to a number of problems. The Concept of development of the public health system 2016 defined the principles, directions, tasks, mechanisms and deadlines for the development of the public healthcare system. It aims to formulate and implement of effective public policies to maintain and enhance the health of the population, increase life expectancy and improve the quality of life, prevent disease, maintain an working age group and promote a healthy lifestyle in society. The organizational principles of the public health system define legality, intersectoral cooperation and coordination, setting priorities, efficiency, accountability and continuity.

The concept envisages the creation of a multisectoral public health system with a coordinating role of the MOH; strengthening the role of the Minister of Health in the field of public health; adaptation legal framework in the field of public health with European legislation; introduction of a multisectoral approach to solving problems in the field of public health; ensuring the functioning of the Public Health Center of the MOH as a coordinator of public health programs and projects; meeting the health needs of the population at the national and regional levels, conducting risk assessments and solving public health problems. The concept provides ensuring centralization and decentralization by the division of certain functions and resources to local governments; involvement of healthcare workers (especially primarily primary healthcare workers) in realization of certain tasks in the public health field and expanding their possibilities to provide healthcare services (from preventive to palliative); setting public health priorities to ensure their priority funding. Also important aspects of the concept are improvement of analytical and information components of the activity, creation of information databases and real-time information exchange system; transition from a system of total control to a system of promoting personal responsibility for maintaining and promoting health; creation of an interdepartmental coordination council on the formation of orders for scientific products in the field of public health as a component of the MOH; introduction of financing mechanisms for the public health system, ensuring transparency and accountability of the available resources usage.

The public health system in Ukraine is a part of the national healthcare system. The subjects of the public health include the central executive body (MOH), which ensures the implementation of state policy in the field of health; authorized body in the field of public health; bodies of state supervision (control), which supervise compliance with the requirements of sanitary legislation in the relevant field; other executive bodies; centers of control and prevention diseases of the authorized body in the field of public health; state scientific institutions of hygienic and

epidemiological fields; local state administrations, local governments; health care institutions, natural persons-entrepreneurs who have received a license to conduct business in medical practice; accredited laboratories; institutions, establishments, units and subdivisions of central executive bodies implementing state policy in the spheres of defense and military construction, protection of public order, protection of the state border, execution of criminal penalties, State Administration of Affairs, Security Service of Ukraine; citizens of Ukraine, foreigners and stateless persons permanently residing in Ukraine; international organizations; other legal entities, public formations that don't have the status of a legal entity operating on the territory of Ukraine.

The organizational structure of the public health system includes the Public Health Center (PHC) of the MOH as an authorized body in the field of public health, which reports to the MOH. The MOH forms a network of territorial Centers for Disease Control and Prevention (CDC). The PHC provides recommendations to the CDC and coordinates their activities in the areas of prevention programs, information fund, laboratory researches, treatment programs, biosecurity and biosafety, and staffing.

The Public Institution «Public Health Center of the MOH» was established in 2015. The PHC is a sanitary and preventive health care institution, which main task is to provide active work in the field of public health. It conducts epidemiological surveillance (observation), laboratory activities, performs actions to protect the population from infectious diseases and non-communicable diseases, biosafety and biological protection, performs organizational and methodological functions in the field of public health. The main directions of the activities of the PHC include analytical-informational, laboratory-diagnostic, preventive-educational, organizational-methodical, scientific-practical, scientific, medical practice, research, consulting and publishing.

The PHC has an appropriate structure for activities implementation, which includes departments of reform and regional development, development of educational programs and professional competencies, project management and international cooperation, communications and outreach, organization of epidemiological surveillance, statistics and analysis, information systems, researches, antimicrobial resistance and infection control, coordination of programs for diagnosis and treatment of HIV, tuberculosis, viral hepatitis and opioid dependence, pharmaceutical management, development and monitoring of prevention programs and non-medical support, behavioral risk factors, International health regulations and response factors, production and environment factors, organization of laboratory work, legal support, as well as a number of reference laboratories and Ukrainian Institute of Public Health Research.

The formation of regional public health centers was beginning at the regional level in 2016. They were created by combined of regional healthcare centers, medical statistics departments, monitoring and evaluation departments, and laboratory centers of the MOH.

The creation of a network of territorial CDC began in accordance with the Government resolution and order of the MOH in 2021 [11]. They are legal entities of any organizational and legal form and have an independent balance sheet, bank accounts, form with its name, signet. Their material and technical base consists of movable and immovable property transferred to them on the base of operational management right from the MOH. The CDC are being established by combining regional capacities, such as regional public health centers, laboratory centers, health centers, medical statistics units, monitoring and evaluation departments. 25 regional centers subordinated to the MOH vertically by the Chief State Sanitary Doctor. Organizational and methodological guidance will be provided by the PHC.

The CDC includes an operational-dispatching department and an emergency response team. The operational-dispatching department works at regime 24/7 and equipped with a telecommunication network, software, hardware and other instruments means. Response teams are responsible for public health emergencies. They should ensure a rapid response to new challenges, pandemics, and coordinated public health actions on other challenges.

The CDC are responsible for a number of tasks that cover all major operational public health functions. They should coordinate and conduct epidemiological surveillance and analysis; identification of pathogens of infectious diseases that have significant epidemic potential and/or international significance and are subject to International health regulations; respond to public health emergencies together with regional public health centers within the framework of the functional and territorial subsystems of the unified state system of civil protection. Centers carry out sequencing of infectious disease agents in order to investigate the causal links between the occurrence and spreading of infectious diseases, including infections that are transmitted during medical manipulations; inform the MOH about risks in the field of public health and management of such risks according with its competence; develop proposals, action plans and recommendations for the implementation of measures aimed to improve health and well-being of the population and improve the public health system; collect and analyze information for the public health information fund; conduct periodic analysis of health determinants, measures of influence health determinants and measures aimed at preventing, reducing and eliminating health inequalities; monitoring of measures to improve health, indicators of physical activity, sexual and reproductive health, mental health; analyze information on cases of injuries and violence; prepare and publish periodic reports on health status, sanitary and epidemiological situation and environmental indicators. The CDC organize training and conduct informational and educational events on public health topics for central and local executive bodies stuff, local governments officials and other entities of the public health system; perform other functions specified by law and constituent documents. They participate in the development of state health and sanitary standards and rules aimed at maintaining health, efficiency and ensuring sanitary and epidemiological well-being, that's why they provide active work of commissions for the investigation of acute occupational diseases. The centers will be fully responsible for disease control in the region and will realize various functions including routine monitoring

of indicators, forecasting, detecting emergencies, outbreaks and responding to them.

The Chief State Sanitary Doctor of Ukraine, who is the Deputy Minister of Health, heads the management vertical in the public health system according to the draft law of Ukraine «About the Public Health System» [12]. The Chief State Sanitary Doctor of Ukraine is endowed with significant powers. He is responsible for the chief sanitary doctors of the territories, who are the heads of regional CDC. He provides tasks for central executive bodies to reduce risks for the health and well-being of the population; participates in the investigation of cases of infectious diseases, non-communicable diseases, lesions and poisonings; provides extraordinary measures of state supervision (control) over compliance with the requirements of sanitary legislation in the relevant field; submits for consideration the issue of establishing a quarantine regime to the MOH. The Chief State Sanitary Doctor initiates the convening of an urgent meeting of the State Commission on Technogenic and Environmental Safety and Emergency Situations if the results of epidemiological surveillance showed inaction or provided insufficient restrictive anti-epidemic measures by local executive bodies and local governments, which can lead to deterioration of the situation.

The chief sanitary doctors of the territories, heads of the regional centers of disease control and prevention should submit applications to the territorial central executive bodies for the implementation of the measures to eliminate risks for the health and well-being of the population. They participate in the investigation of cases of infectious diseases, non-communicable diseases, lesions and poisonings and submit to the territorial for providing extraordinary measures of state supervision (control) for compliance with the requirements of sanitary legislation in the relevant field. The chief sanitary doctors of the territories submit proposals for the introduction of restrictive anti-epidemic measures to local executive bodies and local self-government bodies when an outbreak of an infectious disease occurs in a separate settlement, children's educational institutions, other educational or health-improving institutions or in the case of unfavorable epidemic situation with spreading of infectious diseases. The convocation of an emergency anti-epidemic commission to make decisions on preventing of the spreading infectious diseases in the territory of the relevant administrative-territorial unit is also one of duties. Also provide freely visit and enter the territory and premises of enterprises, institutions and organizations in response to emergencies of any kind in order to eliminate an emergency situation or prevent harmful effects on human health.

State supervision and control will be carried out by all sanitary doctors. They should create proposals for the inclusion of facilities whose activities pose a sanitary and epidemiological risk in the plan of state control measures. They should carry out unscheduled measures of state control immediately after the notification from the Chief Sanitary Doctor about investigation of cases of infectious, non-communicable diseases, lesions and poisonings.

Considerable attention has been paid to the staff formation in the public health system along with organizational and managerial transformations.

The specialty «public health» was included in the list of fields of knowledge and specialties in which higher education students are trained since 2017.

Educational standards for the training of bachelors and masters of public health were developed by working group of the MOH. The members of the working group prepared draft standards, conducted a functional analysis, which included information collection, list of functions, expert survey, definition of competencies with followed discussion, finalization of projects and their submission for approval.

Educational standards for the training of masters of public health were approved by the Ministry of Education and Science of Ukraine in 2018. Educational standards for bachelors of public health were approved in 2020. Educational standards for the training of doctors of philosophy in public health are undergoing final examination and were developed in 2021.

Training of bachelors of public health was started in Ukraine since 2018, and training of masters of public health was started since 2019. Bogomolets National Medical University was one of the first educational institution in Ukraine, which received licenses to train bachelors and masters of public health [13,14]. Six higher education institutions had licenses to train bachelors and thirteen education institutions had a license to train masters of public health in 2021. Some amendments had drafted to the National Classifier of Ukraine DK 003: 2010 «Classifier of professions» to include new professions «environmental and health specialist» and «public health specialist» in order to employ graduates of higher education institutions in the field of public health.

The need to build a public health system in Ukraine is due to the socio-economic, epidemiological, environmental factors, real challenges and threats to the health and well-being of the population. The development of the public health system depends on principles of state policy of Ukraine and international documents signed by Ukraine, including the recommendations of the WHO. The development strategy of public health was defined and approved in Ukraine. The processes of developing a legal framework, forming a network of public health institutions, training, cross-sectoral cooperation are continuing now. Improving of the technological and resource provision of the public health service, adoption of the Law of Ukraine “About Public Health System” and implementation of its provisions, development of intersectoral and international cooperation in public health are important tasks for the future.

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FORMATION OF THE PUBLIC HEALTH SYSTEM IN UKRAINE

SUMMARY

The strategic documents of the WHO and national legislation of Ukraine on the public health system development are analyzed. The existing Semashko model of public health system has been critically assessed. The main stages of development of the new public health system in the context of national health care system reforming in Ukraine are described. The main principles of this system, it's role in solving public health problems within the intersectoral cross-sectoral approach are revealed. The organizational structure of the public health system of Ukraine, the functions of individual entities and officials at different levels of government are presented.

Keywords: public health, disease control, functions, organizational structure, network.

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SOCIAL SCIENCES AND PUBLIC HEALTH PERSPECTIVES FOR EDUCATION AND PRACTICE

In this paper we attempt to address our thoughts and ideas around the Public Health and inclusion of Social sciences together with its possibilities of cohabitation and collaboration in future for better results in Georgian healthcare system.

We will try to prove our expression of interpretations based upon some literature and evidence based thoughts.

The request to social science uttered by many leaders in public health has been clear and unequivocal: The Public Health is an applied social science (1, 2). Help us to “close the gaps between scientific techniques and their application for human welfare” (3). The historical reasons why this plea has been made by public health, and how social scientists and specifically sociologists, have been answering this call remains a question up to now.

The term “social science” includes those disciplines committed to the scientific examination of human behavior. Each of these disciplines – sociology, anthropology, political science, social psychology and economics – while sharing the major goals of social science, deals with specific aspects in the study of man. Social scientists engaged in the study of health and disease tend: (1) to apply the existing concepts of their disciplines to specific health problems; and (2) to seek practical solutions to the health problems which they are studying. For example, medical sociology includes studies of the medical profession, of the relationship of

medicine to its public and of the social factors in the etiology, prevalence, incidence and interpretation of disease (4) . Because of their interest in problems of health and their orientation to the application of social science principles, it is this group of social scientists which may make useful contributions to medicine and public health. Writing in this connection about one of these social sciences, Dr. Alexander D. Robertson has observed: "A medical sociologist who can use language intelligible to a layman to explain his concepts, who can at least begin to apply quantitative measurement to social phenomena, and whose life is . . . devoted to the promotion of health and medicine . . . can have a notable influence for good... (5).

What have been the objectives of medicine and public health and what is the relationship between these objectives and the concepts and the skills offered by the social scientist? The code of personal hygiene and health first enunciated by the Greeks, subsequently restated by the philosophers of the eighteenth century like Rousseau, and recently set forth by the World Health Organization is still the major objective of health workers. This ideal is eloquently expressed in the Constitution of the World Health Organization (6).

To achieve the goal of good health for his patient as an individual, the physician or public health worker must have a detailed knowledge of the psycho- logical and social history of the person for whom he is caring. The social scientist who has studied characteristics of patients or specific social groups may provide health workers with such relevant background information (7).

Historically, then, public health workers have been concerned which concern sociologists. These areas of common professional on how groups behave and how behavior may be changed. Both and sociology use methods involved in summarizing and analyzing The social survey has played an integral part in the development of For example, it was such a report by Edwin Chadwick that led to the foundation in 1848 of the General Board of Health in Great Britain. This Board of Health was the first, formally organized modern public health agency. Subsequently, other social surveys, some conducted by reformers like the Booths, others by social scientists like Rowntree have helped to mould the focus of public health programs (7).

Why is there not more collaboration at the present time between the two disciplines? Several factors account for this situation. At most Canadian universities sociologists have been "Johnnies come lately". Small in number, few of these sociologists have been invited, or have been willing, to test the utility of their concepts in research involving public health problems. In addition few Canadian sociologists have been familiar with the content or vocabulary of public health.

Public health workers, on the other hand, have often tended to deal with the social aspects of their work situation on a "common sense" basis. Many of these workers are uncertain and skeptical about the contributions which the social scientists as an academician may make to their work. When faced with the

possibility, one suspects, they may follow one of Stalin's favorite maxims. "You may always walk with the devil till you get to the end of the bridge" (7).

Of the types of theories and skills which the sociologist employs, several could usefully be put to work in the analysis of problems which public health workers frequently encounter. These sociological concepts and techniques are widely discussed as: The concept of culture; The social structure of communities and groups and The assessment of change (10).

We know from various surveys that the prevalence of specified types of illness and specific mortality rates vary by the social and cultural characteristics of the population. Some of these pertinent variables are age, sex, residence, level of education, income, occupation and ethnic affiliation of individuals. In a small Saskatchewan rural community it was found that individuals in upper occupational categories, in contrast to those in lower occupational categories, reported fewer illnesses, visited their doctors more often, and appeared to have fewer unmet medical needs.

Attitudes and knowledge about health and disease, too, vary by social background. In mentioned rural community upper occupational individuals appeared to be more aware of the symptoms of illness than lower occupational individuals, and they visited doctors more regularly when they observed specified complaints than did individuals in lower occupational groups (10).

The culture and structure of groups in communities are closely related to one another. Culture refers to the beliefs and knowledge of a group; social structure refers to the manner in which people organize their activities.

Knowledge of the social structure of groups in a community is pertinent for the integration of health services in the community. The work of public health nurses, nutritionists, psychiatrists and others often depends for initial sponsor ship on local organizations. Laskin in a study of Biggar, Saskatchewan, found that this community of approximately 2,600 individuals had 140 voluntary associations of which 20 were very influential in the community. Few of these voluntary associations had membership which was representative of the total community and the leadership of the key associations was held by a fraction of the population (11).

In the history of public health there were many examples of deep input from social sciences. The power of the social sciences stems in part from their shared focus on detecting and pointing determined social inequalities, as well as a common interest in improving understanding of the social forces that shape the health of the population.

The help of research done in social science towards public health include (not limited with): the health consequences of discrimination, prejudgment, and dishonor, shame and stigma (12, 13); the impact of social and economic position (14), distress (15), social networking (16), society support (17), and place (18) in affecting health and health discriminations; the role of policy, power, and politics

in structuring the health of populations (19–20); and develop and implement multilevel interventions that take into account the social context that improve the health of the population (21–22).

By observation from some scholars there are plenty of chances in social sciences that will continue making revolutionary aid to improving public health, but there are many hindrances and problems on this way too. Strange but sometimes difficulties are coming from academia itself.

In modern world External challenges are coming from political calls for significantly reducing, even eliminating, funding for the social sciences, potentially due to perceptions that the social sciences are too "soft" and too "liberal" (23).

Intimidations are driven, in part, by a growing non-scientific, misuse of non-expertise views through some segments among key Georgian politicians. There has been heightened uncertainty among social scientists about how the social sciences will be valued and funded in light of recent political changes, making this a critical time to examine its value and contribution in public health (24).

We know several way how to integrate the social sciences in public health in academic settings and institutions, universities put less funds in hiring discipline-based social scientists; in opposite, they have relatively more representation from behavioral scientists, some of whom may be trained more generally in social and behavioral science and do not have discipline-specific social science degrees. It is also observed, that, unclear margins exist between the type of trainings. Those tendencies are important implications for how best to train the next generation of social scientists within public health. One approach takes the perspective of advancing scholarship within social science disciplines. According to this line of thinking, it is critical that social scientists are first trained and mentored in their respective disciplinary departments and that disciplinary connections are maintained. Social science departments provide a foundation in the theories and methods that define their disciplines. This disciplinary grounding may allow social scientists to provide insights into how to address important public health issues, while concurrently contributing to the advancement of their respective disciplines. Despite strengths of this approach, there are potential drawbacks.

For instance, traditional social science departments may not perceive public health research as addressing the key questions these disciplines are pursuing, or as advancing discipline-specific

theory or methods. In some cases, maintaining connections with the discipline may impede the ability to address issues that are most relevant for public health. For example, the social sciences outside of public health may focus on more technical disciplinary-specific concerns, which may deflect attention away from tackling the issues most relevant to public health. Addressing this issue may require a return to the roots of the social sciences that focused on addressing persistent fundamental social problems such as poverty and inequality (25-26).

And in the end of our discussion we want to point to more recent publications (27), public health schools are dependent on external grant support. For the social sciences, this poses a serious challenge. In those social sciences with access to NIH support, the current funding environment is still perilous. Because of the current prospects for funding, many public health schools have begun to consider the option of corporate support for research projects. While this may contribute to the resolution of budgetary difficulties, it inevitably raises critical ethical issues about corporations shaping research agendas, the viability of research undertakings that do not obtain corporate support, and the obvious problems of reputational risk, even when conflicts of interest are considered (28). This tension has ramifications for the type of grant-writing taught in formal coursework, training, and mentoring.

The joint studies of public health and social sciences have a long timeline, with the noble intentions of both parties. However, only recently has a formal reunification taken place. We tried to discuss some of the historical factors that contributed to the unification of the interests of those two disciplines. In addition, several ways of applying social science concepts and skills in the field of public health were addressed.

As a modest conclusion, a further deep research at a PhD level must be conducted to understand the polygonic aspects of reciprocality of public health and social sciences in order to preserve and develop their rich history and contributions; it is also essential that social science leaders in the field of public health meet the challenging issues raised in our findings and their impact on the learning of the next generation.

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SOCIAL SCIENCES AND PUBLIC HEALTH PERSPECTIVES FOR EDUCATION AND PRACTICE

SUMMARY

While there are many opportunities for the social sciences to continue to make transformative contributions to improving public health, there are also major challenges to maintaining and expanding these contributions. Problems arise both inside and outside the academy. The request to social science uttered by many leaders in public health has been clear and unequivocal: The Public Health is an applied social science. How we see the objectives of medicine and public health and what is the relationship between these objectives and the concepts and the skills offered by the social scientist? The code of personal hygiene and health first enunciated by the Greeks, subsequently restated by the philosophers of the eighteenth century like Rousseau, and recently set forth by the World Health Organization is still the major objective of health workers. The tensions we have highlighted here are crucial to the structures and learning processes provided in public health schools, to the direction of social science research that will be continued by the next generation of public health sociologists, to disseminate their research and achievements, and to maintain the findings.

Keywords: social sciences, public health, applied, public health workers, concern, sociologists.

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SOCIAL WORK PRACTICE FROM HEALTHCARE FACILITIES' PERSPECTIVE

Social workers are an important and integral part of modern health care system. In health care social work entails beneficiary assessment in the process of providing health care, individual work with them, identifying needs, and planning various measures, or so-called crisis interventions, to meet these needs.Working with the beneficiary includes providing general and/or educational advice, supporting and encouraging healthy behavior, as well as offering psychosocial support and rehabilitation to the beneficiary, protecting the rights of patients, etc.[1][2][3]

Social work in the health care system considers involvement in such areas as public health, behavioral health, oncology, nephrology, palliative care, mental health, multidisciplinary hospitals, children's hospices, and etc.[4]

Merely a few years ago, legislation defined the role of a social worker in Georgia's health care system. The Law of Georgia on Social Work was enacted on June 13, 2018. The document provides detailed definitions of the profession of social worker, target groups, functions and responsibilities, as well as the authorities of Government of Georgia, Minister of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, Ministry of Justice, Ministry

[1] Kiladze Sophio, Pirtskhalashvili Anna, Tbilisi 2018, Social Work Law Guide.
[2] The Australian Association of Social Workers' (AASW) Scopeof Social Work Practice. 2020
[3] Public health and social work: Training dual professionals for the contemporary workplace; Ruth, B. J., Sisco, S., Wyatt, J., Bethke, C., Bachman, S. S., & Piper T. M. (2008).
[4] Wyatt Jamie,Marshall Ruth Betty J, 2017 წელი, A History Of Social Work In Public Health.

of Education, Culture and Sports. A separate place in this law is assigned to social work in the field of healthcare, whereunder social work in the field of healthcare includes social work with a beneficiary in the process of protecting his/her health.

From February 2021, medical facilities were assigned to inform social workers about medical services and encouraging participation in the process.

The aim of the study was to examine the attitudes of health care professionals and social workers towards recent changes, designed to integrate social workers into the health-care system, as well as acceptance of the issue, understanding the role and function of social workers in the health care system.

The quantitative research approach was chosen as the research methodology. The research was carried out in the form of a two-component survey. The target group for the first component of the survey were hospital managers. A random sampling method was used to select 50 hospitals in Georgia's capital, Tbilisi. The social workers of the Agency for State Care and Assistance for the (Statutory) Victims of Human Trafficking(LEPL) were identified second component of the survey identified. The inclusion criterium for both target groups were 18 to 70 years of age. In May-June 2021, the survey was conducted as a face-to-face interview.

To conduct the survey, a special closed questionnaire was developed, which included 22 questions for social workers and 25 questions for managers.The obtained data were processed by SPSS program. The Ethics Committee approved the research (Protocol # 2021-030 / IRB0000215).

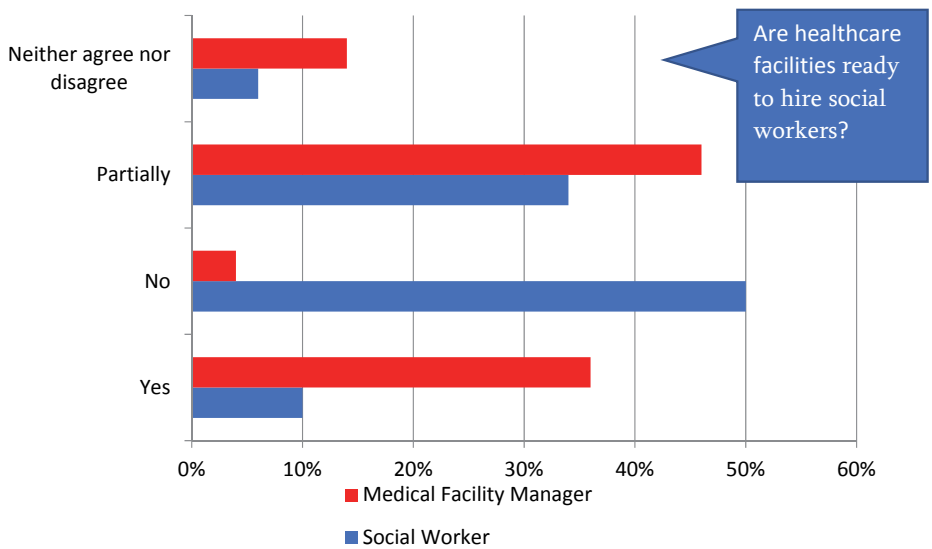
Participation in the survey was offered to75 hospital managers and 125 social workers. In total, 153 respondents took part in the survey (response rate-75%), with 103 social workers and 50 hospital managers. The majority of both groups of respondents were women, namely, 95.1% of female and only 4.9% of male social workers. As for the hospital managers participating in the survey, their 86% were female and 14% were male.

The majority of hospital managers (66%) were between the ages of 36 and 59, whereas 40% of surveyed social workers were between the ages of 25 and 35. All of the survey participants had higher education. The managers were interviewed only in Tbilisi clinics, while social workers – in Tbilisi, Shida Kartli, Kakheti, Imereti, Samegrelo as well.

All 100% of the social workers surveyed agreed that the medical facility should have a social worker in staff, as did 77% of hospital managers. According to 82.5% of surveyed social workers and 58 % of managers, certified social worker (holding a degree) should be hired as a social worker in a medical facility. Hiring at the position of social workers, adequately trained internal staff with other professions (nurses, doctors) in a medical facility is supported by 7% of social workers and 28% of managers. From the interviewed applicants, 80% of the social workers and 46% of the managers had information about legislative amendments, which came into effect on February 1, 2021 and concerns the employment of the social worker in the healthcare system.

Medical institutions in Georgia are not ready to hire social workers in accordance with the amendments to the law, according to 50 % of the surveyed social workers; 35 % believe they are only partially ready, and just 10% think they are completely ready. According to 36% of medical facility managers the facility where they work is ready to hire social workers, 46% believe that it is partially ready, while 4% believe that it is unprepared (Chart 1). However, the duties and responsibilities of social workers, as well as the criteria for their inclusion in the medical care process, were not defined in the majority of institutions.

Chart 1. The attitude of social workers and managers



The majority of surveyed social workers (50%) believe their employment options in health care facilities are limited. Possible reasons include a lack of information about new legislation in hospitals (55%), intention of hospitals to avoid the costs of additional human resources (45%), mobilization of existing staff (38%), lack of the continuous professional training programs on the role and functions of a social worker in health care system.

CONCLUSION

Both healthcare professionals and social workers are not properly informed about the amendments to the Law of Georgia on Social Work, passed in February 2021, as well as the role and importance of social work in medical facilities, which makes difficult the employment of social workers in the healthcare system.

Employment of social workers in the health care system, in turn, challenges education system and educational institutions in terms of training a sufficient

number of graduates. At this point, it is important to launch continuous professional training programs, illustrating the pervasive issues of health and social work better.

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SOCIAL WORK PRACTICE FROM HEALTHCARE FACILITIES' PERSPECTIVE

SUMMARY

Medical social work is one of the specific forms of social work and an integral part of the health care system. The application of basic social work principles to the healthcare sector has recently become topical in Georgia. Modifications have been introduced to the country's legislation. The Law on Social Work, establishing the role of social workers in the healthcare system, was enacted in 2018. The aim of the study was to was to determine the knowledge and attitudes of health professionals and social workers toward modifications considering social workers' integration into the healthcare system, as well as acceptance of the issue and an understanding of their role and function. A specially designed questionnaire was used to conduct the survey in April-June 2021. Managers of healthcare institutions and social workers of the Agency for State Care and Assistance for the (Statutory) Victims of Human Trafficking (LEPL) were chosen as respondents. The survey revealed that social workers and healthcare facility managers positively assessed the legislation modifications. The level of awareness of social workers regarding legislative changes is higher than that of managers of healthcare facilities.

Keywords: social worker, hospitals, training programmes.

PART 3.

Erasmus + Project: Doctoral Programmes in Public Health and Social Science (DPPHSS)

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ERASMUS + DPPHSS PROJECT: TWO YEARS OVERVIEW IN ARMENIA AND GEORGIA

INTRODUCTION

Internationalization in Higher Education Institutions (HEI) is placed at the top of the reform agenda of many international organizations, namely European Universities Association (EUA), UNESCO, and International Association of Universities (IAU). This process covers different dimensions of education in wide range such as international, intercultural and global, considering at a same time the integration of these dimensions (Knight, 2004, Knight, 2002; De Wit et al. 2015). In this respect higher education and academic research are among the most rapidly growing parts of globalizing systems, in which international experience plays a crucial role (Dirk Van Damme, 2016).

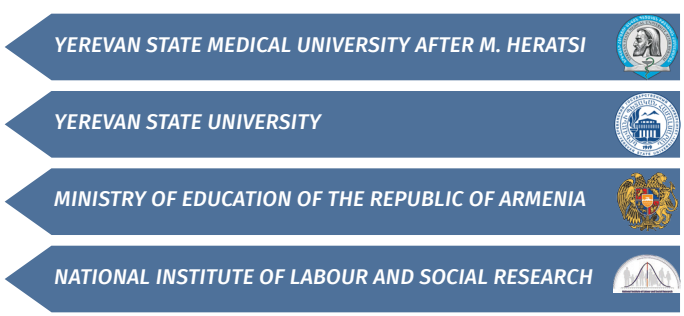
The important part of internationalization in HEIs is development and implementation of international projects. The main purpose of the international

projects is to promote and enforce the development of effective collaboration and professional partnership through program elaboration, enhancement of students and academic staff mobility, training and sharing the best educational experiences. All new challenges of internationalization process are imperative and make a substantial contribution to society, linking the global with the local and opposite. (Brandenburg et al., 2019; Brandenburg et al., 2020; Hans de Wit & Philip G. Altbach, 2020). In this regard ERASMUS+ Program has one of the principal roles that paves the way to enlarge and strengthen this process.

ERASMUS + PROJECT

The CBHE 597977-EPP-1-2018-1-AM-EPPKA2-CBHE-JP Erasmus + project "Doctoral Programmes in Public Health and Social Science" (DPPHSS) was launched in November 2018 with 36 months duration. The project involves four universities from two beneficiary countries (Armenia and Georgia): Yerevan State Medical University after M. Heratsi (YSMU, Armenia, Project Coordinator), Department of Social Work and Social Technologies at Yerevan State University (YSU, Armenia), Faculty of Medicine at Ivane Javakhishvili Tbilisi State University (TSU, Georgia) and School of Health Sciences of the University of Georgia (UG). Four HEIs from EU countries are members of consortium to share their expertize with partner universities in Armenia and Georgia: University of Gothenburg represented by School of Public Health and Community Medicine (Sweden), Babes-Bolyai University by the Center for Health Policy and Public Health (Romania), University of Applied Sciences Upper Austria (Austria) and Slovak Medical University represented by Faculty of Public Health (Slovakia). The following Associate Members in partner countries are supporting to implementation of the project: Ministry of Education (Armenia), National Center for Disease Control and Prevention (Armenia), National Institute of Labour and Social Research (Armenia), L. Sakvarelidze National Center for Disease Control and Public Health (Georgia), Ministry of Education, Science, Culture and Sport of Georgia (Georgia).

Armenia



Georgia

- IVANE JAVAKHISHVILI TBILISI STATE UNIVERSITY
- UNIVERSITY OF GEORGIA
- MINISTRY OF EDUCATION AND SCIENCE OF GEORGIA
- NATIONAL CENTER FOR DISEASE CONTROL AND PUBLIC HEALTH

Europe

- UNIVERSITY OF GOTHENBURG
- BABES-BOLYAI UNIVERSITY
- UNIVERSITY OF APPLIED SCIENCES UPPER AUSTRIA
- SLOVAK MEDICAL UNIVERSITY

The goal of the project "Doctoral Programmes in Public Health and Social Science" (DPPHSS) is to design and develop a PhD program, aiming at advancing knowledge, research and analytical skills in public health in general, and strongly interconnected with social sciences. Mainly the project aims at supporting modernization of health and social services in Armenia and Georgia through the development of postgraduate program, targeting capacity building and training of highly specialized professionals in these fields, able to assess needs, develop programs and carry out activities and research in public health and social sciences. A number of complementary modules will be developed to meet the requirements of particular universities and country needs, and flexible for combining.

There are several components of the project that are new and innovative for higher education in all partner countries:

– The whole idea itself to create an interconnected postgraduate research program in Public Health and Social Sciences is novel for Easter partnership countries. To this date none of the academic institution has used a method of cross-teaching as a method of training of specialists at the crossroads of multiple disciplines. This approach allows not only provide a quality education to future professionals in public health and social sciences, but also establishes a strong network of professionals that can catalyze development of Public Health and Social Sciences further.

– There are no e-learning components or online resources available for PhD students in partner universities, thus blended learning is not incorporated in postgraduate education. Hence, developing online education resources will be one of the biggest and innovative contribution of this project. Within the framework of project these important components of education advancement will be developed and implemented.

As a long-term impact, project will help to increase competitiveness of involved universities in the global educational arena, will contribute to better health care and social services provision in country, and improve health and social services management and increase career perspectives and job opportunities for prospective graduates.

PROJECT ACTIVITIES

The kick-off meeting was held in Tbilisi on February 16-17, 2019, when consortium members – project representatives from partner universities met in person to discuss the work plan, actions, responsibilities, timeline, coordination, resources, development and implementation tools, etc.

During the subsequent two years (2019 – 2020), partner HEIs followed the objectives of project and arranged several activities, accordingly. The academic staff from Armenia and Georgia attended trainings organized by EU partner universities in Romania and Sweden in 2019. The training in Babes-Bolyai University was designed to identify research projects combining public health and social work, organization of PhD programs, their legal and administrative structure, to meet with stakeholders working with vulnerable groups, and transfer knowledge between all the partners. The training organized by University of Gothenburg was oriented on the advanced biostatistical analysis, their application and teaching in biomedical research.

ACTIVITIES IN ARMENIA

As a result of dissemination and stakeholder meetings, as well as internal research, discussions and previous experience, catalogue of needs was developed and sent to EU partner universities that reviewed and made recommendations considering the data.

Both beneficiary universities in Armenia – Yerevan State Medical University and Department of Social work at Yerevan State University have then developed interdisciplinary PhD course structure respectively for public health and social sciences, which was again discussed with EU partners. Further development of contents of separate courses is in progress.

Equipment for e-learning recourse center is purchased and installed already, the identification and development of course content is planned in 2021. YSMU has also acquired new lab equipment that can be used by both university for collaborative research projects as part of PhD education.

The biggest challenge in Armenia remained the administrative and bureaucratic issues of registration of a new PhD code of specialty in public health and social sciences by the Supreme Certifying Committee (as per educational system still existing in some of the Post-Soviet countries). For that several discussions were organized at Universities level, roundtables with officials of Ministry of Education and Science, and Supreme Certifying Committee. Discussions are still ongoing with a very little progress. Nonetheless, there is a draft of new Law on Higher Education. Circulating now among interested organizations which complicates and slows down this process even now. The adoption of this document anyway will significantly change the situation and will require new revisions of existing approaches to PhD coding process.

ACTIVITIES IN GEORGIA

The dissemination meeting/seminar with local stakeholders, represented by the heads of universities academic programmes, National Center for Disease Control and Public Health, hospitals and insurance companies, was held on March 3, 2019. During the meeting a survey was conducted to gather information on needs for modification of current doctoral programmes in public health to meet appropriate requirements of labor market and increase employability of potential graduates as well. As a result, the Catalog of needs for Georgia was elaborated.

At TSU, PhD Program "Public Health and Epidemiology" and at the UG PhD Program "Public Health" were adjusted and adopted to a modern needs. Moreover, several teaching courses were updated and new courses were elaborated. The DocLab for PhD students was renovated and equipped in TSU and new equipment, including for the distance learning was purchased by the UG. Both PhD Programmes got program accreditation by the National Center of Education Quality Enhancement and the admission was announced in both Universities. Overall, 8 PhD students were enrolled in the newly developed doctoral programmes, 5 at TSU and 3 at the UG.

DISSEMINATION

For Project dissemination different tools were used: the project official web-page was created http://dpphss.am/; project relevant information and activities were made available on main websites of all partner universities, as well as the information on PhD admission is available on TSU main page.

Information week dedicated to accredited PhD Program at TSU was organized for the master students and public on 16-19 November 2020 via ZOOM platform. The book "Medical Education at University" was published in Georgia by TSU University Press and "Health-Education-Society" in Poland. Both books include information on DPPHSS Project. Additionally, abstracts reflecting success story of this project was selected for the e-poster presentation at the Consortium of Universities of Global Health (CUGH) annual virtual conference and in ORPHEUS (Organisation for PhD Education in Biomedicine and Health Sciences in the European System) Annual online conference 2021.

WEB-Page of the project

http://dpphss.am/

MONITORING

Intermediate outcomes were reported to representatives of The National Erasmus+ Office (NEO) of Armenia and Georgia on monitoring meetings in 2019, in 2020 and in 2021. Meantime, project was presented at the cluster monitoring in Georgia in 2020.

Covid-19 and future steps

Covid-19 pandemics has significantly delayed the implementation of project activities. Namely, two trainings for academic staff planned to be held in University of Applied Sciences in Austria and Slovak Medical University in Slovakia. Due to pandemics, they were postponed until it will be allowed to travel again. All universities in consortium were switched to remote work, which slowed down the content development process and made impossible the implementation of certain activities, among them purchasing the equipment via tender by TSU, as a state university, and pilot call for PhD students. The extension of the project is planned in order to fulfil all planned activities.

CONCLUSION

"Doctoral Programmes in Public Health and Social Science (DPPHSS)" is a large multi country capacity building project funded by Erasmus+ program aimed to bridge closely related fields of public health and social sciences, facilitate the integration process of PhD education in Armenian and Georgian Universities into European higher education area, strengthen Universities capacities, enhance their competitiveness and financial stability. The successful implementation of project will support internationalization in higher education of partner countries, increase

their visibility, built strong long-lasting partnership between all partner universities involved in the project.

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ERASMUS + DPPHSS PROJECT: TWO YEARS OVERVIEW IN ARMENIA AND GEORGIA

SUMMARY

The article discusses the activities, challenges and achievement of four universities from two beneficiary countries (Armenia and Georgia): Yerevan State Medical University after M. Heratsi (YSMU, Armenia, Project Coordinator), Department of Social Work and Social Technologies at Yerevan State University (YSU, Armenia), Faculty of Medicine at Ivane Javakhishvili Tbilisi State University (TSU, Georgia) and School of Health Sciences of the University of Georgia (UG, Georgia) in the framework of EU Erasmus + DPPHSS project (Doctoral Programmes in Public Health and Social Science). The successful implementation of project will support internationalization in higher education of partner countries, increase their visibility, built strong long-lasting partnership between all partner universities involved in the project.

Keywords: doctoral programme, public health, social sciences, Erasmus + programme

Staff Training, Babes-Bolyai University, Romania, 2019

Staff Training, University of Gothenburg, Sweden, 2019

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FOURTH DIMENSION OF PUBLIC HEALTH DOCTORAL PROGRAM DEVELOPMENT AT TBILISI STATE UNIVERSITY

MODELS OF CURRICULUM DEVELOPMENT

Historically, in the process of developing curricula for the health professional education system, preference was given to several conceptual models, including: Ralph Tyler's Behavioral Model (Tyler, 1949), Hilda Taba's Linear Model (Taba, 1962; Portillo, 2020), Galen Saylor, William Alexander and Arthur Lewis' four-step Deductive Administrative Model (Saylor, Alexander&Lewis, 1981), Kornhauser's Competency Based Approach (Hodge, 2007), Ronald Harden (Harden, 1986) and Mayer's (Mayer, 1999) Outcome-based Education, William Bergquist Six-dimensional Approach (Bergquist, 1981; Toombs, 1993), as well as Bernstein (Bernstein, 1971) and Ball's (Ball, 1990) Four-dimensional framework.

The Taylor model focuses on the purposes of an educational institution, the experience required for attaining these purposes, organizing the experience, and evaluating the experience (Lunenburg, 2011). Hilda Taba paid particular attention to the identification of community needs and expectations, formulation of learning objectives and selection of content and learning experiences, evaluation of objects and tools (Lee, 2013).

The major components of most of the models established in the health professional education are the following: knowledge, competencies, learning outcomes, teaching and learning methods, assessment methods. However, some

models include another dimension, encompassing such organizational and administrative issues, without which it is impossible to develop and introduce a curriculum.

The aim of the article is to review the activities carried out to achieve the main goal (updating public health doctoral programmes and syllabi, developing new syllabi) of the EU Erasmus + DPPHSS project (Doctoral Programmes in Public Health and Social Science) at Ivane Javakhishvili Tbilisi State University in the context of the "fourth dimension" of the Bernstein and Bali model.

DEVELOPMENT OF DOCTORAL CURRICULUM

In 2020, the Doctoral Programme in Public Health and Epidemiology was accredited and admission for the programme was announced, which is the most important outcome of the ongoing Erasmus + project. It was a very labour-intensive and time-consuming process. Likewise, much effort has gone into the organizational dimension of curriculum development.

Necessary activities for the development of a Public Health Doctoral Programme was designed based on a meeting with all interested parties and the processing of survey results within the DPPHSS project in March 2019.

CHANGES AT UNIVERSITY LEVEL

On July 22, the TSU Academic Council approved the resolution №100/2019 on Planning, Designing, Evaluation and Development Procedures of Educational Programmes of LEPL Ivane Javakhishvili Tbilisi State University, which was preceded by the resolution[1]December 27, 2018 №245/2018 on the approval of the Minimum Standard for Doctoral Programme. Both resolutions provided the basis for the necessary changes in the process of developing a Doctoral Programme in Public Health immediately at the level of Faculty of Medicine. [2]

ORGANIZATIONAL (FOURTH) DIMENSION OF CURRICULUM DEVELOPMENT

Special working group was established at the Faculty of medicine, with participation of Dean, representatives of Quality assurance Department and Scientific Research Department, the head of the doctoral programme and the academic personnel involved in the implementation of the programme, together with the participants of the Erasmus + DPPHSS project. For effective management modified ADDIE design

[1] https://old.tsu.ge/ge/juridical/axad_council_resolutions/2018acad/2452018/
[2] https://old.tsu.ge/ge/juridical/axad_council_resolutions/2019/1002019//

model was used, which was very convincing tool for planned activities (Dick & Carey, 2014). This stage demanding analyses of existing regulation and guidelines, design and development of new or modified documentations, constant formative evaluations to ensure that documentations at the Faculty of Medicine are aligned with national requirements and University updated regulations and guidelines.

As a result of intensive activities of the working group, the were updated Regulations on Doctoral Studies of the Faculty of Medicine, which provide indispensable terms and conditions for the implementation of a public health doctoral (PhD) programme and awarding the academic degree of Doctor of Public Health. These regulations cover issues such as: eligibility for doctoral studies, admission criteria to doctoral studies, scientific supervisor, educational components, PhD thesis, PhD thesis submission procedure, the description of the obligation to publish research articles in international peer-review journal, defense of the PhD thesis, PhD thesis assessment, defense committee, etc. The same regulation determines the ratio of the supervisor and doctoral students with an active status (1:7).

Simultaneously with the Regulations on Doctoral Studies of the Faculty of Medicine, there were updated Statement of Doctoral Education on the TSU Faculty of Medicine with two new annexes (criteria of applicants evaluation and guideline for PhD Thesis).

The regulations of doctoral (PhD) studies of the Faculty of Medicine were approved by the TSU Academic Council on September 6 by the resolution №112/2019 on Approval of the regulations of doctoral (PhD) studies of the Faculty of Medicine, LEPL Ivane Javakhishvili Tbilisi State University.

The doctoral programme “Public Health and Epidemiology” was developed, updated and amended based on Resolution №100 of the TSU Academic Council. The Curriculum Committee consisting of 8 members involved in the Erasmus + project. There were prepared and assessed description (structure and content) of the doctoral programme, learning outcome evaluation map, compliance map of educational and research components with learning outcomes, compliance map of the objectives with the learning outcomes according to the annexes to the Resolution №100 of the TSU Academic Council. Besides, course syllabi were developed and evaluated, the functions and responsibilities of the heads/deputy heads/coordinators of the PhD programme were defined, recommendations regarding the evaluation of programme learning outcomes, description of the Infrastructure and equipment were elaborated.

The amendment to the minimum standards of TSU doctoral studies was reflected in the structure of the Doctoral Programme in Public Health and Epidemiology. Content, definitions and workload of the educational and research components have been updated. A plan for the preparation of a sectoral workshop and the workshop assessment protocol were drawn up. Besides, there were prepared assessment protocols of the research projects (№1 and №2) and the plagiarism

detection application form were also prepared.

The committee for management of Doctoral Programmes was established in different directions, among them in the direction of Public Health. Statement of this Committee was elaborated and implemented with newly developed several instructional forms for activities reporting for PhD students, for evaluation PhD thesis by supervisor and experts, among them:

- The form of the final report on the research and educational activities, perfomed by the doctoral (PhDc) student;
- Recommendations on the structure of the dissertation thesis;
- Supervisor' conclusion form;
- Forms of reviewers' conclusions;
- PhD thesis defense protocol form.

The organizational dimension was a important prerequisite for the development of the Doctoral program in Public Health.

CONCLUSION

Curriculum development is very complex and dynamic process. All dimensions of the four-dimensional structure of curriculum development are equally important. Organizational dimension is very important stage alongside with curriculum design for development of the Public Health Doctoral Programme, the successful completion of the accreditation process and, as a result, to the achievement of the goals set by the Erasmus + DPPHSS international project.

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FOURTH DIMENSION OF PUBLIC HEALTH DOCTORAL PROGRAM DEVELOPMENT AT TBILISI STATE UNIVERSITY

SUMMARY

This paper presents an example of development of Public Health Doctoral Curriculum at TSU in 2019-2020 within the Erasmus + DPPHSS project, emphasis is done on the organizational dimension of the Curriculum Development Framework. Paper overviews deliverables of the activities done in the frame of forth dimension. The development of a Public Health Doctoral Programme curriculum can be described as a very complex and dynamic process for which all dimensions of the four-dimensional framework of curriculum development process are equally important. Organizational dimension was very important stage for development of the Public Health Doctoral Programme at Tbilisi State University, for successful completion of the accreditation process and, as a result, for the achievement the goals set by the Erasmus + DPPHSS international project.

Keywords: doctoral programme, public health, curriculum development, organizational dimension.

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