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## STUDYING THE NEEDS OF EMPLOYERS TO TAKE GLOBAL HEALTH PROFESSIONALS ON LABOR MARKET EXPECTATIONS

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### Abstract

**Introduction.** Asfendiyarov Kazakh National Medical University introduced an educational program in the specialty "7M10103 - Global Health and Healthcare" scientific and pedagogical direction in 2020 and is successfully implementing it.

**Objective:** In order to further improve the quality of professional training of undergraduates in the educational program "Global Health and Healthcare" of KazNMU and to determine the needs and requirements for the education of competitive world health professionals, study the opinion of employers from the field of practical health care.

**Materials and methods:** A social study was conducted – a survey of the heads of medical organizations, heads of regional and city public health departments in cooperation with the National Scientific Center for Health Development named after Salidat Kairbekova. 339 respondents participated.

**Results and conclusions.** The study showed that employers note the need to increase practice-oriented specialists. Employers' positive responses to the need to develop skills and competencies with a focus on global health, required in the workplace, show the need for development in graduates and the ability to respond quickly in non-standard situations.

**Key words:** global health and healthcare, educational program, KazNMU, employers, master's education.

### Резюме

## ИЗУЧЕНИЕ ПОТРЕБНОСТЕЙ РАБОТОДАТЕЛЕЙ С ЦЕЛЬЮ ОРИЕНТАЦИИ СПЕЦИАЛИСТОВ ГЛОБАЛЬНОГО ЗДРАВООХРАНЕНИЯ НА ОЖИДАНИЕ РЫНКА ТРУДА

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**Введение.** НАО «КазНМУ им. С.Д. Асфендиярова» в 2020 году внедрил и успешно реализовывает образовательную программу по специальности «7M10103 – Глобальное здоровье и здравоохранение» научно-педагогическое направление.

**Цель:** В целях дальнейшего повышения качества профессиональной подготовки магистрантов по образовательной программе «Глобальное здоровье и здравоохранение» КазНМУ и определения потребностей и требований к подготовке конкурентоспособных специалистов мирового здравоохранения, изучить мнения работодателей из области практического здравоохранения.

**Материалы и методы:** Проведено социальное исследование – анкетирование руководителей медицинских организаций, руководителей областных и городских управлений общественного здоровья в сотрудничестве с Национальным научным центром развития здравоохранения имени Салидат Каирбековой. Участвовало 339 респондентов.

**Результаты и выводы.** Проведенное исследование показало, что работодатели отмечают необходимость увеличения практико-ориентированных специалистов. Положительные ответы работодателей о необходимости развития навыков и компетенций с уклоном на глобальное здравоохранение, необходимых в трудовой деятельности, показывает необходимость развития у выпускников и способности к быстрому реагированию в нестандартных ситуациях.

**Ключевые слова:** глобальное здоровье и здравоохранение, образовательная программа, КазНМУ, работодатели, магистратура.

Түйіндеме

## ЖАҢАНДЫҚ ДЕНСАУЛЫҚ САҚТАУ МАМАНДАРЫН ЕҢБЕК НАРЫҒЫНДАҒЫ ТАЛАПТАРҒА БАҒЫТТАУ МАҚСАТЫНДА ЖҰМЫС БЕРУШІЛЕРДІҢ ҚАЖЕТТІЛІКТЕРІН ЗЕРТТЕУ

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**Кіріспе.** С.Ж. Асфендияров атындағы Қазақ ұлттық медицина университеті «7М10103 – Жаңандық денсаулық және денсаулық сақтау» мамандығы бойынша 2020 жылы ғылыми-педагогикалық бағыты бойынша білім беру бағдарламасын енгізіп, табысты жүзеге асыруда.

**Мақсаты:** ҚазҰМУ-дың «Жаңандық денсаулық сақтау және денсаулық сақтау» білім беру бағдарламасы бойынша магистранттарды кәсіби даярлау сапасын одан әрі арттыру және бәсекеге қабілетті әлемдік денсаулық сақтау мамандарын даярлауға қажеттілік пен талаптарды анықтау мақсатында, денсаулық сақтаудың практикалық саладағы жұмыс берушілерінің пікірлерін зерттеу.

**Материалдар мен әдістер:** Салидат Қайырбекова атындағы денсаулық сақтауды дамытудың ұлттық ғылыми орталығымен бірлесіп әлеуметтік зерттеу – медициналық ұйымдардың басшылары, облыстық және қалалық қоғамдық денсаулық сақтау басқармаларының басшылары арасында сауалнама жүргізілді. Зерттеуге 339 респондент қатысты.

**Нәтижелер мен қорытындылар.** Зерттеу жұмыс берушілер тәжірибеге бағытталған мамандарды көбейту қажеттілігін атап өткенін көрсетті. Жұмыс берушілердің жұмыс орнында талап етілетін жаңандық денсаулыққа назар аудара отырып, дағдылар мен құзыреттерді дамыту қажеттілігіне оң жауаптары түлектердің даму қажеттілігін және стандартты емес жағдайларда жылдам әрекет ету қабілетін көрсетеді.

**Түйінді сөздер:** жаңандық денсаулық және денсаулық сақтау, білім беру бағдарламасы, ҚазҰМУ, жұмыс берушілер, магистратура.

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### Introduction

According to the Astana Declaration (on Primary Health Care), governments agreed to take bold health decisions for all pathogens and UHC sanitation. It also envisages taking action on the economic, social and environmental factors that determine health and reducing the impact on the consequences of the impact of systemic implementation, based on the inclusion of a component of health in all policies. Due to form human resources – new generation specialists in the field of global health and healthcare, Asfendiyarov Kazakh National Medical University introduced in 2020 an educational program in the specialty "7M10103 - Global Health and Healthcare" scientific and pedagogical direction and is successfully implementing it.

The educational program at KazNMU is a program of professional postgraduate education that has fundamental, educational, methodological and research training and in-depth study of disciplines in the relevant field of science, allowing you to get the highest academic degree in the specialty of the masters. Responsible for the implementation of this program is the Department of Health Policy and Management.

The educational program (EP) was developed taking into account the mission of the university and is aimed at preparing highly qualified, competitive health professionals who will contribute to the service of society, reflecting social responsibility through the prism of values and principles in the field of global health and healthcare, by conducting

research and presenting their results to hosts. solutions to ensure equal access, continuity of care and health promotion throughout the life cycle for different age groups.

EP aims to train qualified specialists who are ready to carry out the professional activities of a global health specialist and who are able to work effectively in the field of healthcare in conditions of limited resources; be guided by regulatory and legal aspects related to health at the global level; contribute to the improvement of health outcomes and systems in different countries and regions; evaluate and measure health indicators; to ensure research in the field of global health; navigate the cultural and ethical characteristics of countries in the context of global health. In the field of public health management, countries are interdependent, an example is the situation with the COVID - 19 pandemic [5]. Thus, when training undergraduates, it is necessary to pay attention to bridging the gap between the production of knowledge and its application in the decision-making process [4], which will affect the improvement of health and the achievement of health equity in Kazakhstan, Central Asia and around the world.

Since the mission of the educational program is formulated in accordance with the requirements of state education standards, the needs of the state and the market, the strategy of the university, the requests of employers and the wishes of students, is based on the study of problematic issues of theoretical and practical health care, discussions with stakeholders are held regularly. To correct and update the content of the educational program, information is systematically collected by organizing meetings and a survey is conducted to receive feedback from stakeholders after each graduation of undergraduates.

New needs for professionally trained specialists in global health is one of the key issues of the Ministry of Health of the Republic of Kazakhstan in the field of international health. An important indicator of the level of training of a specialist is the level of his practical training, because. modern employers are reconsidering the requirements for personnel in terms of their competence. Knowledge, skills and abilities are now considered in the context of the ability and willingness to effectively apply them in practice, to meet quality standards in the provision of services.

In order to further improve the quality of professional training of undergraduates in the educational program "Global Health and Healthcare" of KazNMU and to determine the needs and requirements for the education of competitive world health professionals, studie the opinion of employers from the field of practical health care.

**Materials and methods:**

The study was conducted on a sample of healthcare organizers with a cross-sectional design. The study was applied according to the type of target audience, which were heads of medical organizations, heads of regional and city public health departments of the Republic of Kazakhstan.

In order to cover a large number of employers in different regions of the country, an online questionnaire survey of employers was conducted in cooperation with the National Scientific Center for Health Development named after Salidat Kairbekova. The first contact was by email to review the study. 339 respondents agreed to participate in

this research. Employers were informed that the survey should be conducted by the person in the organization who is the first manager and his immediate deputies, who best understands the requirements of the workplace and therefore can give high-quality answers; in most cases, these were deputy chief physicians and deputy heads of state organizations.

Period: February-March 2022.

Form of holding: online, on the platform google forms.

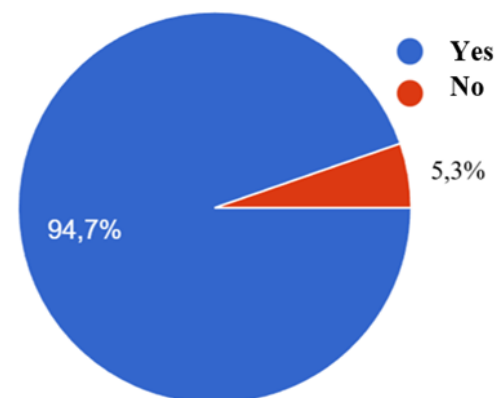
The questionnaire offered to employers was developed by the faculty of the department on the basis of international requirements for the competencies of a global health specialist. The competencies designed are in line with the global competency framework adopted by Consortium of Universities in Global Health, which was developed based on research conducted among employers, donor organizations, international organizations, program alumni and global health and healthcare workers around the world.

The questionnaire consisted of 9 items and has both open and closed questions. Open-ended questions allowed respondents to offer their own answers.

All analyses were performed using the MS Excel program. For questions with more than two answers, for the needs of further research and the research methods used, the answers were recoded into two categories. The characteristics of the questions in terms of the level of necessary competencies were assessed on a five-point scale (from "not needed at all" to "very needed"). The separation used was justified by previous analyzes by the research team.

**Results.**

94.7% of managers (abs. 321) believe that the healthcare system needs specialists with skills in disease prevention and public health promotion in accordance with global health programs (Fig. 1). Achieving Universal health coverage (UHC) is one of the targets set by countries when adopting the sustainable development goals [3]. Countries that make progress towards UHC will also make progress towards other goals, including those related to health.



**Figure 1. In your opinion, does the healthcare system need specialists with skills in disease prevention and public health promotion in accordance with global health programs (%)?**

More than half - 68.1% of respondents (abs. 231) believe that the strategy of universal health coverage is applied in the country. And 31.9% (abs. 108) of employers answered that the strategy is not applied.

Perhaps the above explains the distribution of answers to the following question: "Is your organization interested in participating in international projects?", where 70.5% (abs. 239) answered positively. Participation in international projects is aimed at developing a new generation of global health researchers and preparing them for leadership in this field [4]. Participation in projects such as "Healthy Schools" provides for universal health coverage of target populations. 24.4% (abs. 83) of negative answers to the question shows the need for explanatory work on the role of international cooperation in practical healthcare. Knowledge of programs used in other countries, as well as knowledge of documents and the role of international organizations such as WHO, UNICEF, the Global Fund, etc. in the field of human health and human rights, the International Ethical Guidelines for Biomedical Research will allow us to analyze the best practices and use them in our country [7].

The pandemic has filled the entire meaning of global health with new elements that were previously more associated with the agenda of international relations, and updated the discourse of globalization from the perspective of the topic of health [1]. There was a consolidation of the existing political challenges of international relations in the space of combating the pandemic and international communications on the topic of global health. The survey revealed that in 53% (abs. 180) cases, organizations do not cooperate with international organizations of the UN system, WHO, international associations, foundations, NGOs, etc. and in 43.5% (abs. 147) they cooperate. The rest of the respondents found it difficult to answer this question.

The crisis has clearly demonstrated the invaluable role of health and social workers and the importance of

increasing investment in this area [8]. Over 18 million additional health workers need to be mobilized to meet the health workforce needs to achieve the SDGs and UHC by 2030 [9,2].

Thus, the majority of respondents - 94.8% (abs. 321) believe that the healthcare system needs specialists with skills in disease prevention and public health promotion in accordance with global global health programs.

82.8% (abs. 269) answered that they are interested in specialists with analytical competencies in the field of global health and healthcare. 17.1% (abs. 58) answered negatively and attribute this to the need to deal with their problems in health care at the republic level and the acute shortage of general staff.

According to more than a third part (37.5% - abs. 127), employers believe that the need for personnel in this specialty in the Republic of Kazakhstan is up to 50 specialists; 34.8% (abs. 118) - 100 or more specialists.

78.9% (abs. 255) of respondents believe that specialists are needed in the regions to implement the Astana Declaration. 21.1% (abs. 68) of respondents answered "No".

88.8% (abs. 285) of respondents believe that competent specialists are needed in the regions to promote universal health coverage and implement the WHO sustainable development goals; 11.2% (abs. 36) answered in the negative.

Table 1 presents answers to the question: "Specialists with what competencies in the field of health care does your organization need?", Which shows the level of need for the development of certain knowledge and competencies among specialists.

Table 1.

**The level of need for the development of certain knowledge and competencies among specialists (absolute quantity).**

Knowledge and competencies	Not needed at all	Not needed	Neutral	Need	Very needed
1	2	3	4	5	6
Analysis and study of data on the global burden of disease	23	63	57	<b>81</b>	19
Globalization of health and healthcare	25	45	59	<b>88</b>	17
Social determinants of health	25	43	69	<b>72</b>	15
Human resources in global health and healthcare	31	41	54	<b>92</b>	21
Multidisciplinary Collaboration and Communications in Global Health	26	41	49	<b>97</b>	19
Biomedical Ethics in Global Health and Public Health	24	42	64	<b>81</b>	15
Program Management	27	41	42	<b>106</b>	21
Social justice and equality in the field of health, access to medical care	36	38	42	<b>102</b>	27
Socio-cultural and political characteristics in global health and healthcare	27	50	59	<b>72</b>	16
Strategic analysis of programs and policies in regional and global health and healthcare	28	42	65	<b>83</b>	15

Continuation of Table 1.

1	2	3	4	5	6
External migration (near abroad) and programs in global health	26	55	<b>69</b>	67	14
Dealing with big data in global health and healthcare	27	45	65	<b>82</b>	16
Research in economics and outcomes in global health and healthcare	26	50	58	<b>85</b>	14
Analysis and evaluation of technologies in global health	24	44	54	<b>96</b>	15
Analysis of prevention programs and PHC in the field of global health and healthcare	35	33	47	<b>103</b>	20
Reproductive health and family planning	37	37	38	<b>107</b>	29
International law	32	41	47	<b>94</b>	21

As we can see in the table, all the competencies presented received more answers under the “need” mark. The highest number of such competencies and knowledge was gained in the areas of Reproductive health and family planning (abs. 107), Program Management (abs. 106), Analysis of prevention programs and PHC in the field of global health and healthcare (abs. 103), Multidisciplinary Collaboration and Communications in Global Health (abs. 97), Analysis and evaluation of technologies in global health (abs. 96).

**Discussion**

Global health implies the mutual participation of scientists, politicians and international independent experts in the discussion of how various health services should be financed and distributed in a global interaction. The introduction of the concept of global health involves the introduction of new ethical and moral values that recognize public health as the highest value. Therefore, it is proposed to involve health system managers in the implementation of educational programs in the direction of global health, to develop projects and start-ups in this area with the participation of specialists from practical and international health care [2].

In our country, a study of identifying the needs of employers to orientate global health professionals to the expectation of the labor market is being carried out for the first time. This is due to the fact that the direction of global health in Kazakhstan is relatively new trend.

The limitation of our study is the mathematical description of the process. At the same time, its mathematical model has the form of a regression equation found by statistical methods based on an experiment. However, the main advantage of this study is that it aims to explore different approaches to health care delivery at the global level, which are likely to lead to fundamental changes in the skill set and organization of health workers. Productivity gains can also be achieved through technological advances, which can reduce the overall number of health workers in demand and/or shift demand more towards other categories of health workers.

The analyzed literature data indicate that the problem of employment of young specialists in health specialties have common characteristics throughout the world. The 2019

GBD Health Human Resources (HHR) staff estimates a global physician density of 16.7 (12.6–21.6) per 10,000 population. GBD super-regions of sub-Saharan Africa, South Asia, North Africa, and the Middle East have been found to have the lowest HHR density. It is estimated that achieving an effective UHC coverage index of 80 out of 100 per 10,000 population would require at least 20.7 doctors, 70.6 nurses and midwives, 8.2 dentists and 9.4 pharmacists. In total, the national health workforce fell short of these minimum thresholds in 2019 by 6.4 million doctors, 30.6 million nurses and midwives, 3.3 million dentists and 2.9 million pharmacists [3]. Achieving high levels of effective universal health coverage requires a significant increase in the global health workforce. The gaps are greatest in low-income countries, highlighting the need for increased funding and coordination for training, recruitment and retention in the health sector of Kazakhstan.

Jenny X. Liu et. al. showed in their study opportunities to change the trajectory of the number and types of health workers that are available to meet public health goals and the growing demand for health workers in order to reduce the paradoxical phenomenon of unemployed health workers in many low-income countries [6]. However, these countries may face challenges in securing a sufficient supply of health workers to meet this demand.

The modern needs of society, the priorities of the national healthcare system, medical science and education in Kazakhstan are taken into account for the need to update or restructure the EP and the content of the disciplines. The participation of stakeholders in the evaluation of the EP, as well as the role of other stakeholders in the evaluation of the educational program and the introduction of changes that affect the improvement of its quality, are carried out at the stage of development of the EP during the meeting of the working group, representatives of employers, as well as reviewing the EP by representatives of employers.

Thus, when training undergraduates, it is necessary to pay attention to bridging the gap between the production of knowledge and its application in the decision-making process, which will affect the improvement of health and the achievement of health equity in Kazakhstan, Central Asia and around the world. The educational program will be regularly studied and evaluated annually by obtaining

feedback not only from undergraduates, teaching staff, but also from stakeholders, including employers. Improving the quality of the educational services provided and the curriculum is also ensured through strategic planning, which leads to continuous improvement.

#### Conclusion

The study showed that employers note the need to increase practice-oriented specialists, in general, with knowledge of industry specifics. Employers' positive responses to the need to develop skills and competencies with a focus on global health, required in the workplace, show the need for development in graduates and the ability to respond quickly in non-standard situations.

Kaz NMU will continue its activities in improving the quality of educational programs through cooperation with professional associations, which includes conducting "guest" lectures for students, holding round tables with employers on the compliance of educational programs with the needs of practical healthcare, analysis of the state compulsory education standards in the specialty with proposals for changing the content of curricula.

#### Authors contribution:

**Kosherbayeva L.K.** initiated the study.

**Sidorkina Y.S. and Bralov A.** collected data.

**Kosherbayeva L.K. and Kumar A.B.** designed the study and wrote the manuscript together.

**Abikulova A.K. and Seiduanova L.B.** contributed to statistical analysis. All authors read and approved the final manuscript.

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