

Original article

The role and understanding of health workers in achieving sustainable development goals

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Abstract

Introduction. The Sustainable Development Goals (SDGs), adopted by the UN in 2015, include Goal Good Health and Well-being, which focuses on ensuring healthy lives and promoting well-being, with Universal Health Coverage (UHC) as a key component.

Aim. The aim of our study is to conduct an in-depth investigation of medical professionals' understanding of these issues.

Materials and methods. A questionnaire was developed based on literature review to assess awareness, perceptions of barriers, and attitudes toward UHC and SDGs among healthcare professionals, and was validated by experts and pilot-tested with physicians and nurses in Kazakh and Russian. It was distributed both online via Google Forms and on paper to maximize participation, with voluntary and anonymous completion and the option to withdraw at any time. Data were analyzed using SPSS and Excel. The chi-square test (χ^2) was used to determine the statistical significance of associations between categorical variables.

Results. The study showed a higher proportion of female doctors than nurses ($p=0.008$), with no significant difference in overall SDG awareness ($p=0.288$). Nurses were more aware of Goal Good Health and Well-being: Good Health and Well-being, while doctors had greater awareness of Goals 10, 4, 6, and 13. Doctors rated Goal 3 as more important for their professional development and more often identified lack

of funding as a key barrier to Universal Health Coverage (UHC). Nurses reported a greater lack of training programs. Additionally, doctors viewed healthcare access as more equal than nurses did (59.5% vs. 40.2%, $p=0.001$), and nurses emphasized issues with accessibility and inequality more frequently. Both groups agreed on major barriers like poor infrastructure and low public awareness.

Conclusion. Doctors and nurses show differing awareness and perceptions of SDGs and healthcare challenges, with nurses emphasizing accessibility and training gaps, while doctors focus more on funding and professional development.

Keywords: SDGs, healthcare, doctors, nurses, Universal Health Coverage, professional development, health inequalities.

1. Introduction

The Sustainable Development Goals (SDGs) are a set of 17 global objectives established by the United Nations in 2015, aimed at addressing pressing issues such as poverty, inequality, climate change, and environmental degradation [1]. Goal Good Health and Well-being of the SDGs aims to ensure healthy lives and promote well-being for all at all ages, recognizing health as both a fundamental human right and a foundation for progress in other development areas. Universal Health Coverage (UHC), a key part of this goal, seeks to provide equitable access to essential health services without financial hardship, thereby reducing disparities and supporting broader goals like economic growth and education [2,3].

For the successful implementation of the SDGs and the expansion of access to health services, it is crucial that both the general population and healthcare professionals understand the importance of UHC and the SDGs [4,5]. Awareness of these goals helps improve public health and well-being and encourages active engagement in supporting related policies and disseminating health knowledge. Communities, encompassing diverse and dynamic groups of individuals and organizations, play a crucial role in identifying health priorities, implementing interventions, and holding health systems accountable, but their complexity, changing nature, and internal power imbalances require inclusive and context-sensitive approaches. To strengthen primary health care, communities must be engaged not just as recipients but as active partners and leaders in all stages—from planning to evaluation—while addressing both internal and external inequities to ensure truly representative participation [6,7].

Healthcare professionals play a central role in the implementation of UHC, as their work directly impacts the quality and accessibility of medical services.

Physicians, nurses, and other medical personnel must understand the interconnection between the SDGs and UHC in order to effectively serve all segments of the population. They should also educate patients about their healthcare rights, promote disease prevention, and encourage healthy lifestyles, all of which contribute to the achievement of the SDGs [8].

Kazakhstan actively supports the implementation of the SDGs and promotes UHC as a core principle in the development of primary health care (PHC). As a signatory of the Alma-Ata Declaration—later reaffirmed in the Astana Declaration—the country remains committed to achieving equity and providing accessible, comprehensive care through strengthened PHC [9]. In recent years, Kazakhstan has increased funding for PHC, which now accounts for over 55% of total health expenditures, while gradually reducing hospital-based funding. This shift reflects a strategic focus on prevention and community-based care.

Despite these policy commitments, empirical evidence on healthcare professionals' awareness of the SDGs and their understanding of UHC remains limited, particularly at the regional level. Existing research has largely focused on policy implementation and workforce challenges, while comparative data on physicians and nurses in relation to SDGs and UHC are scarce. This gap is especially relevant in health systems undergoing primary health care reform.

The present study examined whether physicians and nurses differ in: (1) awareness of the SDGs, particularly SDG 3 (Good Health and Well-being); (2) perceptions of barriers to achieving health-related SDGs and implementing UHC; and (3) views on equity and accessibility of healthcare services. We hypothesized that observed differences between professional groups would reflect variations in professional roles, access to institutional information, and engagement in continuing

professional development, potentially influenced by socio-demographic factors such as gender and work experience.

2. Materials and Methods

To conduct this study, a structured questionnaire was developed based on a thorough review of relevant literature on UHC and SDGs.

The forward translation into Kazakh was performed by a bilingual public health specialist fluent in both Russian and Kazakh. An independent bilingual expert, who had not been involved in the initial translation, conducted the backward translation into Russian. The two Russian versions were compared to identify discrepancies. Any inconsistencies were resolved through consensus discussion among the research team and language experts. This process ensured semantic, conceptual, and cultural equivalence between the two language versions.

The questionnaire underwent expert review by specialists in health management and public health to ensure its content validity. The experts assessed the clarity, relevance, and comprehensiveness of the items. After expert evaluation, pilot testing was conducted on both language versions. The pilot sample included 30 healthcare professionals (15 physicians and 15 nurses). Participants were given the questionnaire in their preferred language (Russian or Kazakh) to assess clarity, relevance, comprehensibility, and cultural appropriateness. Minor wording adjustments were made based on feedback from the pilot study. Data from the pilot phase were not included in the final analysis. Internal consistency was assessed using Cronbach's alpha ($\alpha = 0.82$), indicating good reliability.

The final validated version of the questionnaire was made available in both Kazakh and Russian.

Sample Size: The study was conducted in the Aktobe region in April and May 2025. The target population consisted of physicians and nurses working in healthcare institutions in the region. A cross-sectional study design was employed. Given that the total number of healthcare professionals in the region exceeds 10,000, the minimum required sample size was calculated using the standard formula for estimating proportions in large populations:

$$n = \frac{Z^2 \cdot p(1 - p)}{d^2}$$

Where:

$Z = 1.96$ (95% confidence level)

$p = 0.5$ (maximum variability assumed)

$d = 0.05$ (margin of error)

Based on this calculation, the minimum required sample size for a population greater than 10,000 is 374 respondents.

A total of 427 healthcare professionals participated in the study, exceeding the minimum required sample size. A stratified convenience sampling approach was used to ensure representation of both physicians and nurses. Two strata were defined according to professional category (physicians and nurses). Within each stratum, participants were recruited from healthcare institutions that agreed to participate. This non-probability sampling approach ensured representation of both professional groups but may limit the generalizability of the findings. Healthcare institutions in the Aktobe region were invited to participate, and eligible professionals were approached within those institutions.

Inclusion and Exclusion Criteria: The study included physicians and nurses who were currently employed in healthcare institutions in the Aktobe region at the time of data collection and who provided informed voluntary consent to participate. Administrative personnel were not directly involved in clinical practice, as well as interns, residents, and students, were excluded from the study. In addition, questionnaires containing substantial missing data (defined as more than 20% incomplete responses) were excluded from the analysis. All returned questionnaires were screened for eligibility and completeness prior to statistical processing, and only those meeting the inclusion criteria and not fulfilling any exclusion criteria were included in the final dataset.

Data Collection Procedure: The questionnaire was distributed in two formats—via the Google Forms online platform and in printed form—to ensure broad accessibility and accommodate participants' varying preferences and technical capacities. Participation in the survey was voluntary and anonymous. Respondents could complete the questionnaire at a time convenient for them and were informed of their right to withdraw from the study at any stage without providing a reason. These procedures were implemented to uphold ethical standards and improve the accuracy and completeness of the collected data.

Data were analysed using SPSS and Microsoft Excel. Descriptive statistics were calculated for all

variables. Differences between physicians and nurses were assessed using Pearson's chi-square (χ^2) test for categorical variables. Given the number of comparisons performed, statistical significance was interpreted

cautiously to minimise the risk of type I error. A p-value < 0.05 was considered statistically significant.

The research was approved by the local ethics committee West Kazakhstan Medical University named after Marat Ospanov (12-2025/176 HC).

3. Results

A significantly higher proportion of female respondents was observed among doctors compared to nurses ($p=0.008$). While awareness of the SDGs overall did not differ significantly between groups ($p=0.288$), nurses showed greater recognition of Goal 3: Good Health and Well-being (44.1% vs. 28.9%, $p=0.001$), whereas doctors were more aware of Goal 10: Reduced Inequalities (41.0% vs. 24.4%, $p=0.001$), Goal 4: Quality Education (12.7% vs. 23.6%, $p=0.005$), Goal 6: Clean Water and Sanitation (25.4% vs. 16.5%, $p=0.024$), and Goal 13: Climate Action (25.4% vs. 13.0%, $p=0.001$). Regarding the perceived importance of Goal 3 in professional development, doctors rated it as "very important" more frequently than nurses (73.4% vs. 57.5%, $p=0.002$). No significant differences were found in perceptions of whether SDGs on health are being achieved in the

country ($p=0.131$). In terms of barriers to achieving the SDGs on health, doctors and nurses similarly identified lack of funding, poor infrastructure, and low public awareness as major obstacles without significant group differences ($p>0.05$). However, nurses reported a significantly higher lack of training programs for health workers compared to doctors (20.5% vs. 8.1%, $p=0.001$). When addressing challenges to UHC, lack of funding was recognized as a key challenge by more doctors than nurses (61.3% vs. 48.4%, $p=0.009$). Accessibility issues and inequality in healthcare access showed significant differences as well, with nurses more frequently reporting poor accessibility (26.8% vs. 17.3%, $p=0.023$) and inequality in access (29.9% vs. 8.1%, $p=0.001$), (Table 1).

Table 1 - Healthcare Professionals' Awareness of SDGs and Challenges to Achieving Universal Health Coverage

		Doctors n (%)	Nurses n (%)	Total n (%)	P
Gender	Male	56(32.4)	115(45.3)	171(40.0)	0.008
	Female	117(67.6)	139(54.7)	256(60.0)	
	Total	173(100.0)	254(100.0)	427(100.0)	
Have you heard of the Sustainable Development Goals (SDGs) adopted by the UN in 2015 (answered yes)		109(63.0)	147(57.9)	256(60.0)	0.288
Goal 3: Good Health and Well-Being		50(28.9)	112(44.1)	162(37.9)	0.001
Goal 10: Reduced Inequalities		71(41.0)	62(24.4)	133(31.1)	0.001
Goal 5: Gender Equality		57(32.9)	76(29.9)	133(31.1)	0.507
Goal 4: Quality Education		22(12.7)	60(23.6)	82(19.2)	0.005
Goal 6: Clean Water and Sanitation		44(25.4)	42(16.5)	86(20.1)	0.024
Goal 13: Climate Action		44(25.4)	33(13.0)	77(18.0)	0.001
Other		11(6.4)	33(13.0)	44(10.3)	0.027
How do you rate the importance of Goal 3: Good Health and Well-being in the context of your professional development?	Very important	127(73.4)	146(57.5)	273(63.9)	0.002
	Important	43(24.9)	93(36.6)	136(31.9)	
	Not important	3(1.7)	15(5.9)	18(4.2)	
How do you think the Sustainable Development Goals (SDGs) on health are being achieved in your country?	Yes	58(33.5)	64(25.2)	122(28.6)	0.131
	Partially	78(45.1)	120(47.2)	198(46.4)	
	no	20(11.6)	29(11.4)	49(11.5)	
	I don't know	17(9.8)	41(16.1)	58(13.6)	
Lack of funding		100(57.8)	129(50.8)	229(53.6)	0.154

Major obstacles to achieving the SDGs on health	Lack of training programs for health workers	14(8.1)	52(20.5)	66(15.5)	0.001
	Poor health infrastructure	89(51.4)	136(53.5)	225(52.7)	0.670
	Low level of public wareness	89(51.4)	147(57.9)	236(55.3)	0.190
Major challenges in achieving universal health coverage (UHC)	Lack of funding	106(61.3)	123(48.4)	229(53.6)	0.009
	Lack of qualified personnel	54(31.2)	101(39.8)	155(36.3)	0.071
	Poor accessibility of health care facilities	30(17.3)	68(26.8)	98(23.0)	0.023
	Inequality in access to health care for different segments of the population	14(8.1)	76(29.9)	90(21.1)	0.001

Only 43.4% of doctors reported sufficient information about Universal Health Coverage (UHC) principles in their organizations, compared to 27.6% of nurses (p=0.001). When asked about the most important factors for improving healthcare outcomes, investment in health infrastructure was rated higher by nurses (40.2%) than doctors (29.5%) with a significant difference (p=0.024), while training and professional development were considered more important by doctors (23.1%) than nurses (15.4%) (p=0.042). Regarding social and economic disparities, 62.1% of respondents believed these differences strongly influence access to healthcare, with no significant difference between groups (p=0.862).

However, doctors were more likely to rate access to health services as fully equal (59.5%) compared to nurses (40.2%), showing a significant disparity in perception (p=0.001). The perceived impact of knowledge about UHC on improving equality was moderate, with 42.9% agreeing it directly contributes, without significant difference between doctors and nurses (p=0.421). Accessibility for people with disabilities and elderly individuals was mostly rated as “available but with problems” by both groups (56%), with no statistically significant difference (p=0.070). Lastly, about 44.3% believed accessibility had significantly improved, with no significant group difference (p=0.316), table 2.

Table 2 - Healthcare Professionals’ Views on UHC Awareness, Equality, and Accessibility by Profession

		Doctors	Nurses	Total	P
Do you think there is sufficient information about universal health coverage (UHC) principles among health workers in your organisation?	Yes	75(43.4)	70(27.6)	145(34.0)	0.001
	No	10(5.8)	52(20.5)	62(14.5)	
	I find it difficult to answer	88(50.9)	132(52.0)	220(51.5)	
What do you consider the most important factor for improving healthcare outcomes?	Support from government and management	65(37.6)	93(36.6)	158(37.0)	0.840
	Training and professional development of health workers	40(23.1)	39(15.4)	79(18.5)	0.042
	Investment in health infrastructure	51(29.5)	102(40.2)	153(35.8)	0.024
	Active participation of the population in prevention programs	41(23.7)	80(31.5)	121(28.3)	0.079
	Other	61(35.3)	100(39.4)	161(37.7)	0.390
Do you think social and economic differences affect access to health care in your area?	They influence very much	109(63.0)	156(61.4)	265(62.1)	0.862
	They influence, but not significantly	27(15.6)	38(15.0)	65(15.2)	
	I don't know	37(21.4)	60(23.6)	97(22.7)	
How do you rate equality in access to health services for different segments of the population?	Full equality	103(59.5)	102(40.2)	205(48.0)	0.001
	Not full equality, but there are problems;	10(5.8)	38(15.0)	48(11.2)	

	Significant differences in access	27(15.6)	78(30.7)	105(24.6)	
	Don't know	33(19.1)	36(14.2)	69(16.2)	
How do you rate equality in access to health services for different segments of the population	Knowledge about UHC directly contributes to improving equality	79(45.7)	104(40.9)	183(42.9)	0.421
	Knowledge about UHC has some impact, but it is not enough	24(13.9)	34(13.4)	58(13.6)	
	Knowledge about UHC does not play a significant role in improving equality	37(21.4)	50(19.7)	87(20.4)	
	Don't know	33(19.1)	66(26.0)	99(23.2)	
How do you rate the accessibility of health services for people with disabilities (disabled people, elderly people)?	Very accessible	48(27.7)	46(18.1)	94(22.0)	0.070
	Available, but there are problems	85(49.1)	154(60.6)	239(56.0)	
	Not accessible	20(11.6)	29(11.4)	49(11.5)	
	Don't know	20(11.6)	25(9.8)	45(10.5)	
How do you rate the accessibility of health services for people with disabilities (disabled people, elderly people)?	Yes, significantly	82(47.4)	107(42.1)	189(44.3)	0.316
	Yes, but not significantly	68(39.3)	108(42.5)	176(41.2)	
	No	4(2.3)	14(5.5)	18(4.2)	
	Don't know	19(11.0)	25(9.8)	44(10.3)	

4. Discussion

We found that more female doctors participated compared to nurses, and overall awareness of the SDGs was similar between the two groups. Nurses were more aware of the health-related goal, while doctors had greater knowledge of goals related to inequalities, education, sanitation, and climate action, and placed higher importance on health goals in their professional development. The differences in awareness and priorities between doctors and nurses could be due to their distinct roles and responsibilities within the healthcare system. Nurses, often being directly involved in patient care, may naturally focus more on health-related goals like Good Health and Well-being [10-12]. Additionally, variations in training, professional development opportunities, and access to information could also influence these differences in awareness and emphasis [13-15].

Our study highlights key barriers like funding shortages, poor infrastructure, and lack of training, reflecting global health workforce challenges. Current clinical-focused training is disconnected from health system needs, limiting progress toward UHC. A shift to a modern, demand-driven education framework with fair, gender-sensitive employment and private sector involvement is crucial. This change is essential to achieve UHC, create jobs, and support economic growth [16].

In our results doctors reported having more sufficient information on UHC principles within their organizations than nurses. This difference may stem from doctors generally having greater access to formal

training, professional development, and organizational communications about UHC, whereas nurses might receive less targeted information and fewer resources related to these principles. Universal access to essential health information is crucial for achieving UHC and broader health-related SDGs, as it empowers individuals, carers, and frontline health workers with the knowledge needed for effective self-care and patient support [17]. Evidence shows that increased access to reliable health information, especially through digital tools like mobile phones, improves health behaviors and outcomes, such as higher use of oral rehydration therapy and better maternal and child health practices. Consequently, ensuring timely and equitable access to practical, actionable health information can accelerate progress toward UHC and other key health targets by addressing knowledge gaps and promoting informed decision-making [18-20].

In our study, nurses prioritized investment in health infrastructure, while doctors placed greater value on training and professional development, with both groups recognizing social and economic disparities as key factors influencing healthcare access. These differing priorities and perceptions between nurses and doctors reflect broader global challenges related to health workforce capacity. In 2019, significant shortages of health workers—particularly nurses and midwives—were reported worldwide, with many regions falling below the necessary thresholds to achieve effective UHC

[21-23]. This highlights the urgent need to expand and better support the health workforce through increased investment in both infrastructure and training to reduce disparities and improve health outcomes globally.

Limitations and Future Steps: The study's findings are limited by its regional scope, being conducted only in the Aktobe region, which may affect the generalizability to other regions or countries. The use of self-reported questionnaires may introduce response bias, including social desirability bias. Additionally, the cross-sectional design restricts the ability to infer causality or observe changes over time. The sample size for pilot testing was small, which might limit the refinement of the questionnaire. Although, content validity and internal

consistency were assessed, full construct validation through exploratory or confirmatory factor analysis was not conducted, which may limit the psychometric robustness of the instrument.

Future research should expand the study to multiple regions and include larger, more diverse samples to enhance generalizability. Longitudinal studies could help assess changes in awareness and perceptions over time. Qualitative approaches, such as interviews or focus groups, may provide deeper insights into the barriers and facilitators experienced by healthcare professionals. Further interventions targeting training and awareness, especially among nurses, should be developed and evaluated for effectiveness.

5. Conclusion

These findings suggest that policy efforts should prioritize tailored educational programs and increased training opportunities, especially for nurses, to address existing knowledge and capacity gaps. Improving access to information about UHC principles for all healthcare workers is essential to foster a unified approach. Policies must also focus on strengthening collaboration between doctors and nurses to enhance understanding of healthcare accessibility challenges and inequalities. Addressing systemic barriers such as funding shortages and infrastructure deficits remains critical. Overall, targeted resource allocation and workforce development

are key to advancing health equity and achieving the SDG in the healthcare sector.

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References

1. United Nations. (n.d.). *Sustainable Development Goals*. <https://sdgs.un.org/goals>
2. Arredondo, A., Recamán, A. L., & Castrejón, B. (2020). Universal health coverage in the framework of the 2030 global agenda for sustainable development: Agreements and challenges. *Journal of Global Health, 10*(1), 010316. <https://doi.org/10.7189/jogh.10.010316>
3. Ranabhat, C. L., Acharya, S. P., Adhikari, C., & Kim, C. B. (2023). Universal health coverage evolution, ongoing trend, and future challenge: A conceptual and historical policy review. *Frontiers in Public Health, 11*, 1041459. <https://doi.org/10.3389/fpubh.2023.1041459>
4. Macdonald, V., Verster, A., Seale, A., Baggaley, R., & Ball, A. (2019). Universal health coverage and key populations. *Current Opinion in HIV and AIDS, 14*(5), 433–438. <https://doi.org/10.1097/COH.0000000000000570>
5. Hogan, D. R., Stevens, G. A., Hosseinpoor, A. R., & Boerma, T. (2018). Monitoring universal health coverage within the Sustainable Development Goals: Development and baseline data for an index of essential health services. *The Lancet Global Health, 6*(2), e152–e168. [https://doi.org/10.1016/S2214-109X\(17\)30472-2](https://doi.org/10.1016/S2214-109X(17)30472-2)
6. George, A. S., Mehra, V., Scott, K., & Sriram, V. (2015). Community participation in health systems research: A systematic review assessing the state of research, the nature of interventions involved and the features of engagement with communities. *PLoS ONE, 10*(10), e0141091. <https://doi.org/10.1371/journal.pone.0141091>
7. Sacks, E., Schleiff, M., Were, M., Chowdhury, A. M., & Perry, H. B. (2020). Communities, universal health coverage and primary health care. *Bulletin of the World Health Organization, 98*(11), 773–780. <https://doi.org/10.2471/BLT.20.252445>

8. Renganathan, E., & Davies, P. (2023). Sustainable Development Goals and the role of and implications for primary care physicians. *Malaysian Family Physician*, 18, 54. <https://doi.org/10.51866/cm0005>
9. Kluge, H., Kelley, E., Birtanov, Y., Theodorakis, P. N., Barkley, S., Aidossov, S., & Valderas, J. M. (2019). Implementing the renewed vision for primary health care in the Declaration of Astana: The time is now. *Primary Health Care Research & Development*, 20, e137. <https://doi.org/10.1017/S1463423619000719>
10. National Academies of Sciences, Engineering, and Medicine. (n.d.). *The future of nursing 2020–2030 project*. <https://www.nationalacademies.org/projects/HMD-HCS-18-11>
11. Flaubert, J. L., Le Menestrel, S., Williams, D. R., et al. (2021). *The future of nursing 2020–2030: Charting a path to achieve health equity*. National Academies Press. <https://www.ncbi.nlm.nih.gov/books/NBK573910/>
12. Kwame, A., & Petrucka, P. M. (2021). A literature-based study of patient-centered care and communication in nurse–patient interactions: Barriers, facilitators, and the way forward. *BMC Nursing*, 20, 158. <https://doi.org/10.1186/s12912-021-00684-2>
13. Zhang, M., Wu, S., Ibrahim, M. I., Noor, S. S. M., & Mohammad, W. M. Z. W. (2024). Significance of ongoing training and professional development in optimizing healthcare-associated infection prevention and control. *Journal of Medical Signals and Sensors*, 14, 13. https://doi.org/10.4103/jmss.jmss_37_23
14. Royston, G., Pakenham-Walsh, N., & Zielinski, C. (2020). Universal access to essential health information: Accelerating progress towards universal health coverage and other SDG health targets. *BMJ Global Health*, 5(5), e002475. <https://doi.org/10.1136/bmjgh-2020-002475>
15. Shiri, R., El-Metwally, A., Sallinen, M., Pöyry, M., Härmä, M., & Toppinen-Tanner, S. (2023). The role of continuing professional training or development in maintaining current employment: A systematic review. *Healthcare*, 11(21), 2900. <https://doi.org/10.3390/healthcare11212900>
16. Evans, T. G., Araujo, E. C., Herbst, C., & Pannenberg, O. (2017). Transforming health workers' education for universal health coverage: Global challenges and recommendations. *World Health & Population*, 17(3), 70–80. <https://doi.org/10.12927/whp.2017.25304>
17. Pakenham-Walsh, N., & Godlee, F. (2020). Healthcare information for all. *BMJ*, 368, m759. <https://doi.org/10.1136/bmj.m759>
18. Linguissi, L. S. G., Ouattara, A. K., Ntambwe, E. K., et al. (2017). Mobile applications: Effective tools against HIV in Africa. *Health and Technology*, 7(1), 1–8. <https://doi.org/10.1007/s12553-016-0165-3>
19. Lee, S. H., Nurmatov, U. B., Nwaru, B. I., et al. (2016). Effectiveness of mHealth interventions for maternal, newborn and child health in low- and middle-income countries: Systematic review and meta-analysis. *Journal of Global Health*, 6, 010401. <https://doi.org/10.7189/jogh.06.010401>
20. GBD 2019 Human Resources for Health Collaborators. (2022). Measuring the availability of human resources for health and its relationship to universal health coverage for 204 countries and territories from 1990 to 2019: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 399(10341), 2129–2154. [https://doi.org/10.1016/S0140-6736\(22\)00532-3](https://doi.org/10.1016/S0140-6736(22)00532-3)
21. McPake, B., Dayal, P., Zimmermann, J., et al. (2023). What steps can improve and promote investment in the health and care workforce? Enhancing efficiency of spending and rethinking domestic and international financing (Policy Brief No. 54). *European Observatory on Health Systems and Policies*. <https://www.ncbi.nlm.nih.gov/books/NBK594108/>
22. OECD & European Commission. (2024). *Health at a glance: Europe 2024: State of health in the EU cycle*. OECD Publishing. <https://doi.org/10.1787/b3704e14-en>

Тұрақты даму мақсаттарына қол жеткізудегі медицина қызметкерлерінің рөлі мен түсінігі

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Түйіндеме

Кіріспе. 2015 жылы БҰҰ қабылдаған тұрақты даму мақсаттарына (ТДМ) салауатты өмір салтын қамтамасыз етуге және әл-ауқатты жақсартуға бағытталған денсаулық пен әл-ауқат мақсаты кіреді. Оның негізгі құрамдас бөлігі денсаулық сақтауды жалпыға бірдей Қамту (ДЖБҚ) болып табылады.

Мақсаты. Біздің зерттеуіміздің мақсаты - медицина қызметкерлерінің осы мәселелерді түсінуіне терең зерттеу жүргізу.

Материалдар мен әдістер. Әдебиеттерді шолу негізінде денсаулық сақтау мамандарының хабардарлығын, кедергілерді қабылдауын және ТДМ мен ДЖБҚ -ға деген көзқарасын бағалау үшін сауалнама әзірленді, оны сарапшылар растады және дәрігерлер мен медбикелердің қатысуымен қазақ және орыс тілдерінде пилоттық сынақтан өтті. Ол қатысуды барынша арттыру үшін Google Forms арқылы да, қағаз жүзінде де онлайн режимінде таратылды, ерікті және анонимді түрде толтырылды және кез келген уақытта бас тарту мүмкіндігі болды. Деректер SPSS және Excel көмегімен талданды. Хи-квадраттық тест (χ^2) категориялық айнымалылар арасындағы ассоциациялардың статистикалық маңыздылығын анықтау үшін қолданылды.

Нәтижелер. Зерттеу көрсеткендей, әйел дәрігерлердің үлесі медбикелерге қарағанда жоғары ($p=0,008$), ТДМ туралы жалпы хабардарлықта айтарлықтай айырмашылықтар жоқ ($p=0,288$). Медбикелер денсаулық пен әл-ауқат -мақсат туралы көбірек білді: денсаулық пен әл-ауқат, ал дәрігерлер 10, 4, 6 және 13 - мақсаттар туралы көбірек білді. Дәрігерлер денсаулық пен әл-ауқат - мақсатты олардың кәсіби дамуы үшін маңыздырақ деп бағалады және қаржыландырудың жетіспеушілігін жалпыға бірдей медициналық сақтандыруға (УНС) негізгі кедергі ретінде жиі анықтады. Медбикелер оқу бағдарламаларының жетіспеушілігі туралы хабарлады. Сонымен қатар, дәрігерлер медициналық көмекке қол жетімділікті медбикелерге қарағанда тең деп санады (59,5% қарсы 40,2%, $p=0,001$) және медбикелер қолжетімділік пен теңсіздік мәселелерін жиі атап өтті. Екі топ та инфрақұрылымның нашарлығы және халықтың хабардарлығының төмендігі сияқты негізгі кедергілер туралы келісті.

Қорытынды. Дәрігерлер мен медбикелер ТДМ және денсаулық сақтау мәселелері туралы әртүрлі хабардарлық пен түсініктерді көрсетеді, медбикелер қолжетімділік пен оқытудағы олқылықтарға баса назар аударады, ал дәрігерлер қаржыландыру мен біліктілікті арттыруға көбірек көңіл бөледі.

Түйін сөздер: ТДМ, денсаулық сақтау, дәрігерлер, медбикелер, жалпыға бірдей медициналық қызмет, біліктілікті арттыру, денсаулық теңсіздігі.

Роль и понимание работников здравоохранения в достижении целей устойчивого развития

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Резюме

Введение. Цели устойчивого развития (ЦУР), принятые ООН в 2015 году, включают цель хорошее здоровье и благополучие, которая направлена на обеспечение здорового образа жизни и повышение благосостояния, при этом ключевым компонентом является всеобщий охват услугами здравоохранения (ВОУЗ).

Целью нашего исследования является проведение углубленного изучения понимания медицинскими работниками этих вопросов.

Материалы и методы. На основе обзора литературы был разработан опросник для оценки осведомленности, восприятия барьеров и отношения к всеобщему медицинскому образованию и ЦУР среди медицинских работников, который был утвержден экспертами и апробирован в пилотном режиме с врачами и медсестрами на казахском и русском языках. Анкета была распространена как онлайн через Google Forms, так и на бумаге, чтобы обеспечить максимальное участие, с добровольным и анонимным заполнением и возможностью отказаться от участия в любое время. Данные были проанализированы с помощью SPSS и Excel. Для определения статистической значимости ассоциаций между категориальными переменными использовался критерий хи-квадрат (χ^2).

Результаты. Исследование показало, что доля женщин-врачей выше, чем медсестер ($p=0,008$), при этом нет существенной разницы в общей осведомленности о ЦУР ($p=0,288$). Медсестры были лучше осведомлены о цели хорошее здоровье и благополучие: крепкое здоровье и благополучие, в то время как врачи были лучше осведомлены о целях 10, 4, 6 и 13. Врачи оценили цель как более важную для своего профессионального развития и чаще других указывали на нехватку финансирования как на ключевое препятствие на пути к всеобщему охвату услугами здравоохранения (ВОУЗ). Медсестры сообщили о большей нехватке программ обучения. Кроме того, врачи считали доступ к медицинским услугам более равным, чем медсестры (59,5% против 40,2%, $p=0,001$), а медсестры чаще подчеркивали проблемы доступности и неравенства. Обе группы согласились с такими основными препятствиями, как плохая инфраструктура и низкая осведомленность общественности.

Выводы. Врачи и медсестры демонстрируют разную осведомленность и восприятие ЦУР и проблем здравоохранения, при этом медсестры подчеркивают доступность и пробелы в обучении, в то время как врачи уделяют больше внимания финансированию и профессиональному развитию.

Ключевые слова: ЦУР, здравоохранение, врачи, медсестры, всеобщий охват услугами здравоохранения, профессиональное развитие, неравенство в отношении здоровья.