

# Current challenges in accessibility to ophthalmological care in Ukraine

Olena S. Skrypnikova, Tetiana P. Yurochko

NATIONAL UNIVERSITY OF KYIV-MOHYLA ACADEMY, KYIV, UKRAINE

## ABSTRACT

**Aim:** The purpose of the study is to identify challenges in the organization and access to ophthalmic services through the analysis of expert opinion of practitioners and government officials.

**Materials and Methods:** Materials developed during expert interviews with practitioners and government officials were used in the study. We also used materials worked out within the project ID 22120107 supported by Visegrád Fund.

**Conclusions:** Despite all the challenges in access to high-quality ophthalmology services, practitioners and government officials have common opinions on how to improve the organization of eye services, how to make care more inclusive and effective, so that the development of blindness and visual impairment does not cause a burden on the state and society.

**KEY WORDS:** organization of ophthalmological care, management of healthcare, ophthalmology, cataract, glaucoma, expert interviews

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## INTRODUCTION

Ophthalmological care in Ukraine has been developing dynamically in recent years, it includes more classical traditional practices in medical care, as well as modern innovative methods of treatment and support of patients. The main components of ophthalmic care in Ukraine still remain diagnosis, treatment and prevention of disorders related to the eyes and visual system. The ophthalmic care network may also vary, depending on the availability of personnel, resources, medical products, medicines and facilities, as well as on the location of the provision of care to the population [1]. For example, coverage of quality ophthalmology services is currently may be limited in rural areas or in regions of de-occupation or close to the demarcation line.

Although Ukraine boasts a greater wealth of medical and quality expertise, the public ophthalmology may still face various challenges, including resource constraints, infrastructure limitations, and possible inequities in access to quality ophthalmology services and care [2]. The national Ukrainian healthcare system has undergone transformations in recent years, creating both obstacles and opportunities for both ophthalmologists and patients [3].

Despite these challenges, Ukrainian ophthalmology is characterized by stability and development. Clinicians across the country are constantly striving to improve diagnostic techniques, surgical procedures, and patient

care protocols. In addition, the joint efforts of medical professionals, researchers and policymakers contribute to the development of ophthalmic services and the dissemination of best practices.

This article examines the organization of the national ophthalmology system in Ukraine via delving into expert review, current challenges, and possible new perspectives for improvement in the field. By examining the healthcare system and specific support and services, we aim to provide insight into the current status of eye care in Ukraine and emphasized the efforts of practitioners and state to improve public ophthalmological care system in Ukraine.

## AIM

The aim of this study is to analyze the existing healthcare system of providing services in ophthalmology in Ukraine to identify gaps in the national system and propose preliminary solutions for their elimination or improvement in further research, in particular in the provision of medical services for cataract and glaucoma.

## MATERIALS AND METHODS

The study included conducting expert interviews with ophthalmologists from the public and private sectors,

managers of public health care facilities and the management of the National Health Service of Ukraine (NHSU) regarding their experience in medical practice and their expert opinion on the organization of ophthalmology care and challenges in the healthcare system. Expert interviews were conducted in accordance with the requirements of qualitative research methods, including interview recording, transcription, protection of the rights of respondents during the interview and were approved by the Scientific Research Ethics Committee of the National University of Kyiv-Mohyla Academy, Resolution No. 3 of from July 7th, 2022. All respondents gave informed consent to process and use the responses for scientific purposes and publications.

This study presented materials that were partially developed within the framework of the project ID 22120107, supported by the Visegrád Fund, and were used in part of the study on Ukraine in agreement with partners.

## REVIEW AND DISCUSSION

Expert interviews are an invaluable tool in the field of ophthalmology research, providing researchers with the first-hand information, perspectives and experiences of thought leaders and practitioners in the field. In the pursuit of deepening knowledge, understanding new trends and solving complex problems, expert interviews offer a unique opportunity to take advantage of the wealth of experience and knowledge possessed by experienced professionals and influential stakeholders.

As quality ophthalmological care in Ukraine still continues to develop, particularly under the influence of technological progress, demographic changes and changing healthcare paradigm and reforming, the need for informed decision-making and evidence-based practical solutions is becoming increasingly important in today's realities. Also, expert interviews serve as a conduit for synthesizing multiple perspectives, fostering interdisciplinary collaboration, and elucidating the nuances of issues that may not be apparent through quantitative research methods.

This article presents the main results and theses of expert interviews with ophthalmologists from the public and private sectors, managers of public healthcare facilities and the management of the National Health Service of Ukraine, analysing the issues of organization of ophthalmological care in Ukraine, coverage of services in Program of Medical Guarantees (PMG) packages [3], early diagnosis and challenges facing practitioners. By providing practical recommendations and examples from experts' experiences, we aim to enable the full potential of expert interviews as a means of generating comprehensive, contextually informed insights and driving significant progress in the field.

During the conducted interviews, a number of important directions in the organization and support of ophthalmic care were revealed, which currently appear to be important for the provision of quality services and their availability.

## FINANCIAL COVERAGE OF OPHTHALMOLOGICAL SERVICES FROM THE STATE BUDGETS

A big discussion with experts considers if the public healthcare system of ophthalmological care fully covers all the costs of patients for treatment, (micro)surgery for eye diseases and the purchase of lenses for cataracts and other diseases [3]. All experts emphasized that PMG covers all costs of primary medical care, most examinations and even surgical intervention in packages. However, if the treatment involves more specific medical devices, medicines or additional supporting or more advanced care and rehabilitation, then these additional costs may be payable by the patient [4]. It was also pointed out that expensive lenses are not covered by government programs, instead mid-range decent quality lenses are. The expert 1 practicing surgery doctor noted in the interview: «Not all services are fully covered by the Programme of Medical Guarantees. Now, some of cataract patients are covered by local budget programmes. The Programme of Medical Guarantees covers examinations, consultations, that is, more at the level of primary medical care. There is a local program «Health of Kyivans» in Kyiv city, which has been operating for several years, and it operates more or less stably. To date, it fully cover all consumables: lenses, knives, and solutions.»

At the same time, the management of NHSU understands the need to expand the capacity of PMG packages to cover the necessary services, in particular ophthalmology. In this way, expert 2 from the management of NHSU noted about the plan of the state institution for the coming years: «Right now, we are preparing a more detailed list, which will, as it were, break down the general services in order to understand that we cannot fully cover by PMG now. And these services will be included in a separate Resolution, supplemented with paid services, where it will be clearly understood what services and medical care we pay for and what we absolutely do not cover.»

## THE USE OF INNOVATIVE TECHNOLOGIES AND PRACTICES IN OPHTHALMOLOGY

Despite the fact that some services are not covered by PMG packages [3], ophthalmic care is still provided in

Ukraine according to modern standards, especially in private facilities that lead in the country in providing ophthalmological services. In one of the interviews of expert 3 practitioner and WHO expert on the fight against blindness in Ukraine, noticed the following: «Our service quality in ophthalmology is already at a high level, both in private and in public clinics, but private ones have slightly more opportunities. If the National Health Service has more funds, they also can cover intraocular lenses, but full or partial reimbursement will not change or encourage the use of the latest technologies. There is a standard - doctors follow it.» In addition, expert 1, a practicing ophthalmic surgeon, said that «Within local public programs, intraocular lenses of average statistical characteristics are purchased. Premium lenses or stigmatic lenses are not covered by government programs or the government budget. This will not increase the use of modern technologies, because we already use the latest practices in Ukraine.»

#### AVAILABILITY OF ADVANCED OPHTHALMIC MEDICINES (ESPECIALLY FOR THE TREATMENT OF GLAUCOMA)

The Affordable Medicines in Ukraine program is an important initiative aimed at expanding the population's access to vital medicines. By reimbursing the cost of essential medications, the program aims to ease the financial burden on patients, promote equitable care delivery, and improve overall health outcomes [5]. Also, the Affordable Medicines program plays a key role in overcoming systemic barriers to access of vulnerable patients to medicines in Ukraine, contributing to the realization of universal coverage of medical services and promoting social integration and inclusion. The Affordable Medicines Program is already well established, but the list of medicines that are reimbursed is limited, especially for original ophthalmic medicines. All interviewed experts agreed that the program should be expanded to ensure equality and access to effective treatment, especially for glaucoma. «Glaucoma patients should be transferred to government programs so that all necessary eye drops are covered by these programs. It is definitely necessary to expand Affordable Medicines Program and National List, because it is very profitable for the state. The drops are very expensive and elderly people and pensioners cannot afford such treatment. Glaucoma leads to blindness and then to the disability, what is a burden on the state. Patients must be provided with all necessary medications without additional payments. Our market of anti-glaucoma medications is very wide, but all effective ones should definitely be added to the National List, because there are generics

and there are original ones, and their effectiveness can be different», - expert 4 sharing thoughts regarding the state Program. Another expert 1 also emphasized that some clinics may allow separate direct purchases of expensive medications that are not included in the Affordable Medicines Program or are unaffordable for vulnerable patients: «In general, few medicines are included in this program for macular dystrophy, including VEGF for retinopathy, because these medicines are expensive. We very occasionally have purchases. For example, last year the "Eye Microsurgery Center" bought about 8,000 VEGF vials and they are secured by the free program for vulnerable patients.»

Addressing the challenges of access to medicines requires a multifaceted approach that includes policy reforms, stakeholder collaboration, and continued investment in health infrastructure and human resources. By overcoming these obstacles, the Affordable Medicines Program can realize its potential to provide equitable access to essential ophthalmological medicines, promote equity in health care and improve the well-being of Ukrainian population.

#### DISEASE PREVENTION, EARLY DIAGNOSIS AND OPHTHALMIC SCREENING PROGRAMS

Early detection and screening play a key role in health care, especially in the context of disease prevention and treatment. Early detection through screening allows practitioners quickly intervene early to prevent disease development or complications, improve treatment outcomes, and reduce morbidity and mortality. Early detection and screening are cost-effective for the state, as they can lead to significant cost savings for healthcare system by avoiding the need for more extensive and expensive treatments associated with advanced stages of eye disease [2-3]. Preventing disease progression through early intervention reduces healthcare costs associated with hospitalizations, surgeries, long-term care and rehabilitation. Furthermore, screening programs that identify high-risk individuals for preventive intervention are often more cost-effective than treating late-stage eye diseases, in particular, cataract and glaucoma. Some of the ophthalmological screening measures are included in PMG. Thus, the management of NHSU notes: "It is also included in the scope of PMG. We provide this as part of the outpatient package. Another issue if it is currently covered and reimbursed at a needed rate and volume. State medical institutions want to be motivated by providing early detection measures, that is why the rate should be adjusted. Moreover, the scope of providing this detection in the form of screening is already precisely included in specialized medical care

package, it is precisely included in ambulatory medical care package, as part of the PMG specifications.”

Also, practicing experts are fully united in the idea of paying more attention to the development of issues of early diagnosis in ophthalmology and better advocacy, as noted by expert 1: «Screening programs are needed, because cataract and glaucoma are the diseases that, in suppressed stages, can carry a social burden for the state and increase disability due to blindness. We have international standards of treatment, including following the rules of primary diagnosis, but perhaps the government and the Ministry of Health should pay more attention to screenings and diagnostics.» The same theses were emphasized by the WHO expert «Early prevention is usually more expensive than treatment. It is very expensive for us [Ukraine], we will not fully cover it [expensive treatment] from the state budget, but screening programs are possible.»

Summing up the experts' reflections on ophthalmic care in Ukraine, they emphasize the resilience of medical workers and the main stakeholders to challenges and the potential for transformational changes through the implementation of modern solutions and the development of a network of professional cooperation between practitioners and state. Addressing systemic barriers, key change reformers can achieve universal access to high-quality ophthalmological care and improve the quality of vision for the population, reducing the social and medical burden.

Ophthalmological care in Ukraine covers a number of key topics, starting from the general organization of the healthcare system in Ukraine, the systematic review and implementation of improvements at different levels of medical care, the development of healthcare infrastructure and access to advanced technologies and methods of treatment. Understanding the nuances of these components provides valuable insight into the challenges facing medical practitioners, patients, researchers, and governmental authorities, as well as opportunities for advancement.

Ukraine's health care system has undergone significant reforms in recent years aimed at modernizing infrastructure and improving access to basic ophthalmological services. However, challenges remain, particularly in rural areas where access to ophthalmology care can be limited. For now, the main effort should be to ensure the inclusion of patients by applying the principles of Do No Harm and leaving no one behind. The spread of mobile clinics or mobile health units, the introduction of telemedicine, and partnerships with national non-governmental organizations can serve as such solutions to reach populations that are underserved in hard-to-reach or liberated regions [6].

In addition, there is a need for continued investment in healthcare facilities, equipment and development of qualified human resources to ensure the availability of comprehensive quality ophthalmic services at a broad national level [2].

As expert discussions with practicing ophthalmologists revealed, they face a variety of eye diseases and conditions, including cataract, glaucoma, diabetic retinopathy, and age-related macular degeneration. These conditions not only affect the quality of life of individual patients, but also create significant problems for public health system. Also, the blindness in recent years shows an increase in prevalence in the younger age group, in particular, cataract and glaucoma [4,7], which may increase the social burden among the working population and for the state. Early detection strategies, screening programs, and patient education in the primary medical care level are essential to mitigate the burden of these diseases and prevent irreversible vision loss. There is also a shortage of qualified ophthalmologists who meet the needs of the population, which may indicate an increase in the incidence of ophthalmosurgical diseases and a decrease in the number of primary diagnoses of the population in various types of ophthalmic medical care [8].

Despite limited and sometimes poor resources, Ukrainian ophthalmologists are able to implement technological advances to improve the accuracy of ophthalmological diagnosis and treatment results. Innovations such as optical coherence tomography (OCT), laser-assisted cataract surgery, and minimally invasive glaucoma surgery have improved and innovated the practice of ophthalmology, enabling more accurate diagnosis and personalized treatment plans that are more patient centralized and focused on the individual patient's health improvement. However, the implementation of these innovative approaches and technologies, their quality of implementation and access to them may differ in different regions of Ukraine, which emphasizes the need for a fair distribution of resources in healthcare facilities and continues professional learning of personnel and patients in order to ensure uniform standards of ophthalmological care [2].

It should also be mentioned that joint efforts between scientific and research institutions, healthcare facilities, private business and industry partners are crucial for the implementation of innovations and quality services in ophthalmology in Ukraine. Research covers a wide range of topics, including new early diagnostic and therapeutic approaches, genetic susceptibility to eye diseases, personalized treatment and health financing, providing recommendations for improving the organization of ophthalmological care in the country.

By promoting interdisciplinary cooperation and knowledge exchange, Ukrainian researchers contribute to the global array of ophthalmological knowledge, meeting the specific needs of domestic population.

While Ukraine overcomes (geo)political and military difficulties and economic uncertainty, the future of ophthalmology depends on sustainable growth and development strategies. Investments in education, training and professional development are critical to building a skilled workforce capable of meeting evolving health-care needs. In addition, initiatives to strengthen primary ophthalmological care, integrate ophthalmic services into the primary medical care network, and mainstream preventive interventions that are important to promote lifelong and stable eye health.

## CONCLUSIONS

To sum, the field of ophthalmology is poised for transformative advancements and meaningful impact on vision health. Moreover, the field of ophthalmology in Ukraine is characterized by collaboration and use of modern practice, as clinicians, researchers, and indus-

try partners work together to push the boundaries of knowledge and technology. The future holds immense promise for advancements that will revolutionize the practice of ophthalmology and improve patient care.

Despite challenges, ophthalmological care in Ukraine is characterized by resistance to challenges and efforts to implement innovative solutions. Clinicians and practitioners seek to improve diagnostic methods, surgical procedures and patient care protocols, and monitoring measures to monitor services and support provided to patients. In addition, the joint efforts of medical professionals, researchers and politicians can contribute to the development and availability of quality ophthalmic services and the dissemination of best practices.

However, amidst the optimism and progress, challenges remain. Access disparities, resource constraints, and the burden of eye diseases continue to pose significant obstacles to achieving universal ophthalmic care coverage and ensuring equitable access to services. Addressing these challenges requires collective governmental and public action, innovative solutions and a commitment to prioritizing eye health on the national agenda.

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## CONFLICT OF INTEREST

The Authors declare no conflict of interest

### **CORRESPONDING AUTHOR**

**Olena S. Skrypnikova**

National University of Kyiv-Mohyla Academy

2 Hryhorii Skovoroda St, 04655 Kyiv, Ukraine

e-mail: o.skrypnikova@ukma.edu.ua

### **ORCID AND CONTRIBUTIONSHIP**

Olena S. Skrypnikova: 0000-0001-5096-6469 **A** **B** **D**

Tetiana P. Yurochko: 0000-0002-9455-9141 **A** **E** **F**

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**A** – Work concept and design, **B** – Data collection and analysis, **C** – Responsibility for statistical analysis, **D** – Writing the article, **E** – Critical review, **F** – Final approval of the article

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