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Balancing Doctor Mobility and Public Health Delivery: Human Resources for Health in Latvia

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Abstract

Healthcare systems across Europe face increasingly complex challenges that demand innovative responses. Public health is now widely acknowledged as a determinant of population well-being and as a significant contributor to national economies. In Latvia, the large-scale out-migration of healthcare practitioners represents one of the most pressing issues confronting the national health sector. This trend has intensified since the country's accession to the European Union in 2004, as healthcare practitioners leave in search of better working conditions and higher wages abroad. The resulting shortage of medical professionals threatens the stability of the healthcare system as well as the wider economy. The aim of this study is to understand the dynamics and causes of the emigration of healthcare practitioners, particularly medical doctors, and to examine the role of the state in preventing this trend to ensure balanced doctor mobility and effective public health delivery. The article places particular emphasis on the position of young doctors, who are critical to the sustainability of Latvia's healthcare system. It examines Latvia's legal framework requiring medical graduates to work in the public sector for three years following residency and assesses its compatibility with constitutional rights and EU regulations. The discussion considers potential mechanisms for recovering financial resources when this service obligation is not fulfilled, as well as the possibility of introducing alternative models, such as telemedicine, with much fewer resources. In addition to legal measures, the article explores the role of technological innovation, particularly telemedicine, as a potential means of mitigating doctor shortages and expanding access to care. The article concludes that the continued emigration of healthcare professionals poses a serious threat to the effective functioning of the national healthcare system. Without timely and effective action, the country risks failing to provide adequate and timely healthcare services, especially in specialised fields.

Keywords

health policy; medical practitioners; mobility; resident doctor; technologies; telemedicine

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1. Introduction

The principal function of the European Union in health policy is to facilitate, coordinate, and support Member States in attaining collectively agreed objectives anchored in the Treaty on the Functioning of the European Union (TFEU, 2012). The Health in All Policies (HiAP) approach constitutes a guiding principle in EU governance, according to Article 168 of the TFEU (2012), which forces the EU to protect and improve human health and to ensure a high level of health protection across EU policies. HiAP acknowledges that health is substantially shaped by a broad set of social, environmental, and economic determinants (Stahl, 2018, pp. 38–39). Consequently, health considerations should be mainstreamed across diverse policy domains beyond public health, to promote coherent and synergistic outcomes for the health of the population (Green et al., 2021).

The free movement of workers, a fundamental principle of the EU, grants EU citizens the right to seek employment in any EU member state and aligns with the goals of the EU Health Policy concerning the healthcare sector. The conclusion of the 1992 Maastricht Treaty marked a significant turning point in the EU political and legal landscape, as it formally established EU citizenship (TFEU, 2012). This shift enhanced the rights and freedoms of EU citizens and deepened the integration of member states, facilitating greater cooperation and mobility across the bloc. It represented a move toward a more unified Europe, where citizens enjoy rights that transcend national boundaries, contributing to a stronger sense of European identity. The absence of worker mobility could jeopardize the stability of the EU's labour market. In scenarios where certain regions experience high unemployment and low wages, a surplus of labour may develop. Conversely, other regions might suffer from labour shortages, leading to significantly higher wages. This disparity would result in countries with elevated labour costs producing goods and services that are less competitive compared to those from nations with lower labour expenses. Furthermore, EU member states might face challenges in achieving their policy objectives if they lack sufficient human resources. The EU facilitates coordination and generates economies of scale by pooling resources to tackle common challenges, such as the associated risk factors that mobile workers may face (European Parliament, 2019).

The accession to the EU in 2004 significantly impacted Latvia's labour market, leading to an emigration of workers, including healthcare practitioners. Although the shortage of healthcare professionals was not immediately apparent after enlargement, it has become evident that the healthcare system faces considerable challenges. In 2013, the EU enacted Directive 2013/55 (European Commission, 2013), which amended the rules on recognition of professional qualifications to facilitate and standardise medical practice across EU member states, with implications for doctors wishing to work outside their country of qualification.

The aim of this study is to understand the dynamics and causes of the emigration of healthcare practitioners, particularly medical doctors, and to examine the role of the state in preventing this trend to ensure balanced doctor mobility and effective public health delivery.

2. Methodology

The authors examine the availability of healthcare human resources in Latvia, comparing it with other EU member states, and, using survey data, analyse the main reasons behind doctors' emigration.

The study synthesises relevant research and discussions on labour mobility within the EU, with a focus on the movement of medical practitioners. It also analyses normative and legal documents to provide a framework for applying vertical determinants and metatheory methods to health policy formation, and to guide qualitative research methods, qualitative data processing and analysis, and the consideration of secondary and statistical data relevant to Latvia's health system. In addition, the study maps the current health workforce supply in Latvia using data from the European Commission, Eurostat, and the OECD, as well as sources from the State Audit Office in Latvia, the Ministry of Health of the Republic of Latvia, and legal acts and regulations related to the health workforce and its continuous professional development.

Another part of the study investigates the horizontal determinants of health-practitioner emigration from Latvia, using a quantitative assessment of the health system's setting and conditions. A survey of 259 physicians was conducted by the social research company Berg Research. A two-stage sampling method was used. In the first stage, seven hospitals were selected: three major hospitals in the country's capital, Riga, and four regional hospitals, representing a wide range of medical specialties.

In the second stage, a random sample of about 15% of practicing doctors from each hospital was surveyed in a random sample, ensuring that 60% of respondents were under 40 years old.

The questionnaire included 18 questions on the following aspects: description of doctors' current working conditions and remuneration; assessment of workload, opportunities for professional development and further education; training, residency, remuneration, and career opportunities for young doctors; and perceptions of the national healthcare system, including the shortcomings of doctors in their specialties and emigration factors. Responses were measured on a 4-point Likert scale from *strongly disagree* to *strongly agree*. Validity and reliability were tested, and statistical results were obtained using the program SPSS Statistics. Validity, or accuracy, was tested using Pearson correlation (items vs. total, $p < 0.05$), ensuring the survey accurately measured the intended construct. Reliability, or consistency, was tested in SPSS using Cronbach's alpha (analyse > scale > reliability analysis), with values above >0.7 indicating high internal consistency.

A total of 259 questionnaires were included in the data processing; 57.5% of respondents were under 40 years of age. The representativeness or reliability level of our sample is 94% (6% margin of error). In relation to the number of doctors in the surveyed hospitals, 13.3% of doctors are under 40 years of age, while the corresponding proportion of doctors under 50 years of age is 10.7%.

The analysis of the number and composition of respondents shows that the largest groups are relevant, and it is possible to draw statistically significant conclusions, the best age groups, groups by length of service, by place of work, between doctors and resident doctors, between employees in the capital's hospital and in the regions, as well as by desire to emigrate.

The following research hypothesis assumes that the large-scale emigration of healthcare practitioners from Latvia results primarily from unfavourable working conditions and insufficient state retention measures, and that strengthening legal frameworks and adopting technological innovations, such as telemedicine, can help balance doctor mobility and ensure sustainable public healthcare delivery.

Overall, the study contributes to discussions on how healthcare policies and regulations, including telemedicine, influence the availability of services and the broader management of the public health system.

3. Human Resource Dynamics in the Healthcare Sector

Healthcare is extremely labour-intensive and is one of the most significant sectors of the economy in the EU, employing 9.7% of the EU workforce (Eurostat, 2023). At the same time, healthcare systems in Europe are facing increasingly complex challenges that demand innovative solutions. The restructuring of healthcare both in the EU and in Latvia, coupled with demographic, technological, economic, and institutional changes, has an impact on the desires and wants of healthcare workers as well as on the nature and scope of their work and contributions to the healthcare industry. Furthermore, public health is increasingly recognised as stimulating economic productivity. Several OECD studies analysed the state of human resources in the healthcare system in Latvia before and after the Covid-19 pandemic, which has had a serious impact on the sector (OECD, 2021, 2023, 2025h).

Over the past decade, doctor shortages have become more pronounced. In Latvia in 2019, there were only 3.3 practicing doctors per 1,000 people—well below the EU average of 3.9, while the number of nurses was about half the EU average, making Latvia one of the lowest staffed health systems in the EU (OECD, 2021).

The OECD's 2023 study on the healthcare system and human resources in Latvia notes that, despite the ongoing shortage of healthcare workers, their numbers have not increased significantly over the past decade. In 2021, Latvia had 3.4 doctors per 1,000 inhabitants, which was slightly below the EU average. Nurses numbered 4.2 per 1,000 inhabitants, less than half the EU average of 8.5 per 1,000 (OECD, 2023). To address these gaps, policy measures have included wage increases from 2018 to 2023 and financial incentives aimed at reducing the urban–rural distribution disparity among healthcare workers. The OECD's 2025 report shows virtually no improvement compared with 2021 and 2023. Latvia continues to experience shortages across multiple staff categories. In 2023, there were 3.4 physicians per 1,000 population—well below the EU average (4.3 per 1,000). The density of nurses is concerning at 4.2 per 1,000, about half the EU average of 8.5 per 1,000. Latvia has introduced a new "general care nurse" role, with dedicated funding of EUR 2.8 million (OECD, 2025h). Despite rises in wages in the public sector between 2018 and 2023, many health workers leave the public system for the private sector or migrate abroad, motivated by higher salaries and better working conditions. Within the medical workforce, 23% of physicians were general practitioners in 2023, reflecting ongoing efforts to strengthen primary care. However, shortages persist in rural areas due to comparatively low reimbursement in the public sector and the enticement of private practice. A new initiative to standardise remuneration and improve working conditions, especially outside major cities, is underway to enhance patient access and reduce the urban–rural divide. The Ministry of Health of Latvia has estimated that the health sector currently requires around 4,900 additional nurses. Poor working conditions and low pay are deterrents to both entering and remaining in the public healthcare sector, particularly for nurses. The ageing of medical practitioners and their uneven regional distribution pose further challenges for the sector. The European Commission also points to a serious situation: Latvia has fewer doctors per 1,000 inhabitants than the EU average (European Commission, 2025).

Table 1 provides a brief comparison with other relatively small European Union member states, showing how many doctors there are per 1,000 inhabitants.

Table 1. Number of doctors per 1000 population with relatively small populations.

Latvia	3.4 practising doctors per 1,000 population
Estonia	3.5 practising doctors per 1,000 population
Slovenia	3.5 practising doctors per 1,000 population
Slovakia	3.8 practising doctors per 1,000 population
Denmark	4.5 practising doctors per 1,000 population
Lithuania	4.6 practising doctors per 1,000 population
Portugal	5.8 licensed doctors per 1,000 population

Source: OECD (2025a, 2025b, 2025c, 2025d, 2025e, 2025f, 2025g).

As part of Latvia's recovery and resilience plan, in 2024, the Government adopted the *Healthcare Workforce Development Strategy 2025–2029* (Cabinet of Ministers, 2024a). The strategy seeks to enhance recruitment and retention of health professionals by addressing core areas such as health workforce planning and financing, education and employment pathways, and working conditions and performance. Consequently, it will implement comprehensive measures designed to attract and retain essential medical staff in the public sector.

An extensive report, *Human Resources in Healthcare* (The State Audit Office, 2019), drew sharp and critical conclusions. The report found that the number of medical professionals employed in the healthcare system continued to decline, the workforce was aging significantly, and there were substantial disparities in the distribution of medical professionals between regions, the capital, and metropolitan areas. Key challenges included establishing effective human resource planning, improving wage structures and social benefits, and developing educational systems that meet labour market needs in the healthcare sector. A unified methodology for planning the required number of medical professionals was considered necessary. The conceptual report described the basic principles and criteria for planning and forecasting human resources in the sector. Although the Ministry of Health had already set, in 2005 (after Latvia's accession to the EU), a goal to align the healthcare system's human resources with demand in terms of quantity and qualifications, several challenges persist. First, there is a critical shortage of nurses and midwives in the sector—according to reported estimates, the health sector needs at least 3,598 additional nurses and 295 midwives. Second, while the number of doctors in Latvia compared to the population is near the international average, there is still a shortage of doctors in certain specialties.

In the healthcare sector, it is important that a doctor with certain qualifications is available where the patient needs them; however, the report concluded that the activities of the Ministry of Health in implementing the human resources development policy have not significantly improved the availability of healthcare services in Latvia's capital region and its other territories. However, the Ministry of Health intended to attract residents to work outside Riga, which did not significantly change the availability of doctors in the regions, and the Ministry did not succeed in attracting a sufficient number of new specialists to the healthcare sector.

However, the report has highlighted that the indicator is met by the fact that 92% of doctors who have completed their residency start working in the health sector, while in the case of other professions, the criterion has not been met—only 52% of nurses and 54% of midwives start working in Latvia after completing their studies. In total, only 65% of young specialists who have acquired qualifications remain in the Latvian labour market after receiving their diplomas. Although a significant problem in healthcare is the

rapid aging of medical personnel, the criteria set by the Ministry of Health for the replacement of generations of medical personnel have not been fully achieved, and the Ministry also does not have effective solutions to solve this problem. The data analysis conducted during the audit shows that 55% of medical and support personnel are over 50 years of age. In several medical specialties, the situation can be considered critical because, for example, 65% of the country's practicing doctors with a surgical specialty are over 50 years old, including 21% of specialists who have reached the age of 65.

To improve the situation, new specialists must be trained, and measures must be taken to ensure that they continue working in the healthcare sector. Moreover, demographic data shows that in 2025, more than 8,000 medical professionals were aged 60 to 64. In turn, only 7,000 staff in the health sector are from the younger generation, under the age of 29. Latvia faces a looming healthcare workforce shortfall driven by an aging trained health professionals and insufficient growth in the number of young professionals. Current demographic indicators suggest a gap of about 1,000 doctors and more than 4,000 nurses (Ministry of Health, non-official information from 2026), with projections indicating that Latvia could face a shortage of about 2,400 medical professionals by 2030, a figure likely to be higher (Lukjanska, 2025). Addressing these challenges requires expanding training for new specialists and implementing retention strategies, alongside robust workforce planning and incentives to keep healthcare workers in the sector.

4. Key Factors Behind Medical Migration

Among healthcare professionals and the general public, there is a prevalent perception that remuneration is the primary motivation for doctors who choose to emigrate; while this used to be widely accepted a decade ago, the authors suggest that other factors have gained importance in recent years. The survey of doctors reveals that considerations such as social guarantees, job security, and access to advanced medical technologies and career opportunities are increasingly influencing their decisions to relocate.

The authors conducted a survey in 2025 in collaboration with experts from Berg Research company, targeting medical doctors and early-career physicians to gain insights into the primary factors influencing emigration from the country. The survey is based on the responses of 250 participants, and the following sections present the analysis of their answers.

The distribution of responses to the question "In your opinion, what should the net salary be after taxes for new doctors in Latvia after completing residency, so that the new specialist does not consider emigration due to the salary?" shows that 32.7% of respondents indicate a wage within the EUR 2,501–3,500 range, and a sufficiently large proportion indicate a wage within EUR 3,501–4,500 (Figure 1).

The following picture opens up for comparison with both clinical university hospitals: The page for Pauls Stradins Clinical University Hospital (2026) states that the average wage for a doctor per full-time workload is EUR 4,424 gross, which corresponds to about EUR 3,100 net.

This expectation reflects their desire for competitive compensation that acknowledges their extensive training and the demanding nature of the profession. Additionally, many young doctors expressed concerns about the rising cost of living and the need to secure financial stability as they began their careers, emphasising that adequate remuneration is crucial for attracting and retaining talent in the healthcare sector.

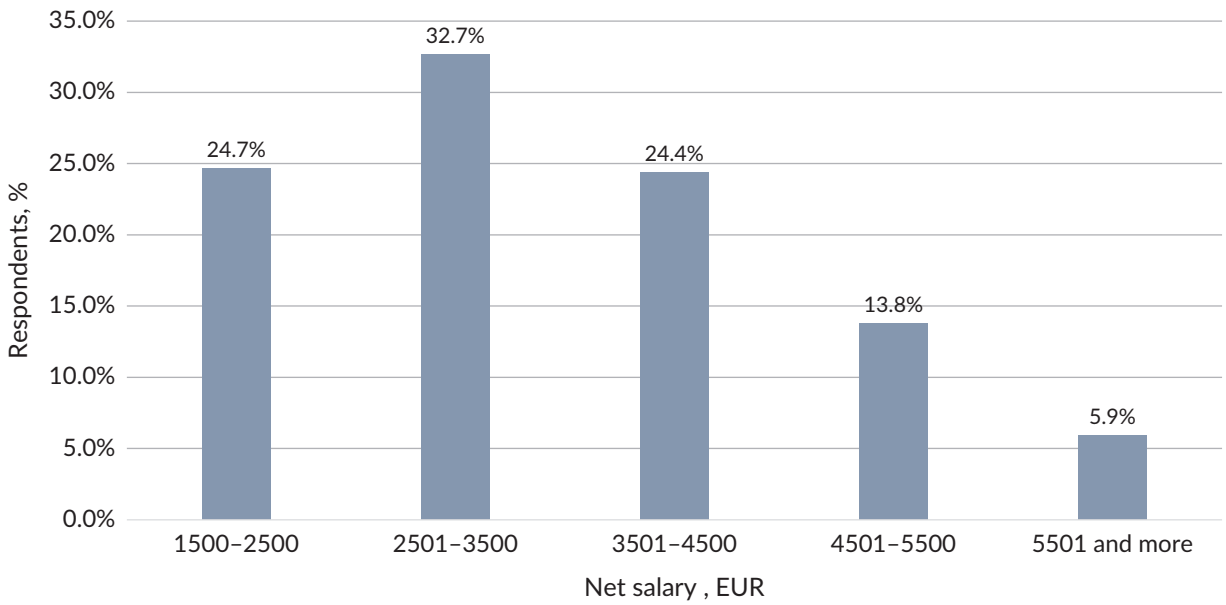

Figure 1. Minimum expected net salary for doctors after completing residency (EUR).

The page of one of the largest medical institutions, Riga Eastern Clinical University Hospital (2026), indicates that the average salary for a full-time doctor is EUR 4,541, including taxes: approximately EUR 3,200 net.

Results above 2.5 indicate participants mostly agreed and gave positive assessments, while results below 2.5 confirm a mostly negative assessment. From the results of the answers, it can be concluded that, in the opinion of doctors, too little experience exchange and internships abroad are provided, and the workload is indicated as being high. This is consistent with the fact that information about physician "burnout" often appears in the mass media, which is relevant to the author's opinion (Table 2).

The survey conducted by the authors proved that more than one-third of the doctors surveyed exhibited high levels of emotional exhaustion and depersonalisation, along with low levels of personal achievement. This is especially relevant to the Covid-19 pandemic period, when, for example, emotional exhaustion of operating room nurses working in hospitals has reached a very high rate—89% of respondents. This is reflected in an important study on "burnout" syndrome and professional deformation conducted at the Traumatology and Orthopaedics Hospital, where it was concluded that 29% of respondents observed aggressive behaviour during work, 18% observed authoritarian traits, 31% demonstrative behaviour, indicating serious problems in the mental well-being of specialists and, consequently, in the quality of healthcare services provided (Nagle et al., 2023). Common risk factors have been reported, such as increasing bureaucratic requirements, long working hours, lack of respect from colleagues, remuneration not commensurate with the work done (lack of balance between input and reward), lack of clinical autonomy, as well as (as strange as it may seem) the increasing use of information technology (electronic medical records) in practice. The above problem was pointed out by former President of the Latvian Medical Association, Pēteris Apinis, who has said that doctors in Latvia often "burn out" due to excessive bureaucracy, unjustified reforms, and heavy workload (Apinis, 2017).

Table 2. Satisfaction with working conditions by age groups.

	All answers	Age groups				
		Until 29	30–39	40–49	50–59	60 and over
My workplace has good and safe working conditions, with an organized workspace.	2.9	3.0	2.8	2.9	3.0	3.1
The employer properly ensures workplace safety (for example, your protection against potential patient aggression)	2.7	2.9	2.6	2.5	2.8	2.9
The employer is understanding/supportive	2.9	3.1	2.8	2.8	2.9	2.9
The employer provides training opportunities (courses)	2.8	3.1	2.8	2.6	2.7	2.9
There is successful professional collaboration with colleagues at the workplace	3.1	3.3	3.0	3.1	3.2	3.2
I have good personal relationships with my colleagues	3.4	3.4	3.3	3.3	3.5	3.5
I manage to find a balance between work and personal life	2.5	2.8	2.3	2.2	2.7	2.9
The employer offers foreign business trips (experience exchange, internships abroad, conferences, etc.)	2.3	2.6	2.3	2.2	2.2	2.1
How, at present, thinking about the last 3 years, has your workload affected your mental health?	2.0	2.1	1.8	1.9	2.1	2.3

Notes: Arithmetic means calculated from Likert scale ratings from 1 (*completely disagree*) to 4 (*completely agree*), without considering the answers *difficult to answer*.

In Latvia, many doctors work at multiple workplaces, which can contribute to "burnout." This, in turn, may affect the quality of medical care, patient safety, and interactions with patients and colleagues. Regarding the question "In your opinion, what is the main reason for the emigration of medical professionals from Latvia?" the following responses were recorded.

Inadequate remuneration is consistently cited as the main reason in all age groups. It is most highlighted in the youngest age group, up to 29 years. As an "other answer," more often mentioned are "all reasons," "chaos in healthcare," and "overload." Moreover, among those contemplating emigration, many expressed concerns about their current working conditions, social stability, and career prospects in their home country, suggesting that a range of motivations drives this intent to explore opportunities abroad (see Figure 2).

When examining the responses in more detail, opinions are divided according to the respondent's indicated workplace (medical institution).

Figure 3 shows the difference in opinions when separating the answers provided by medical doctors in medical institutions and in regions of the country. Opinions differ by region and by physician type: remuneration and career opportunities are top concerns in less-developed areas, whereas working conditions are more prominent in large hospitals.

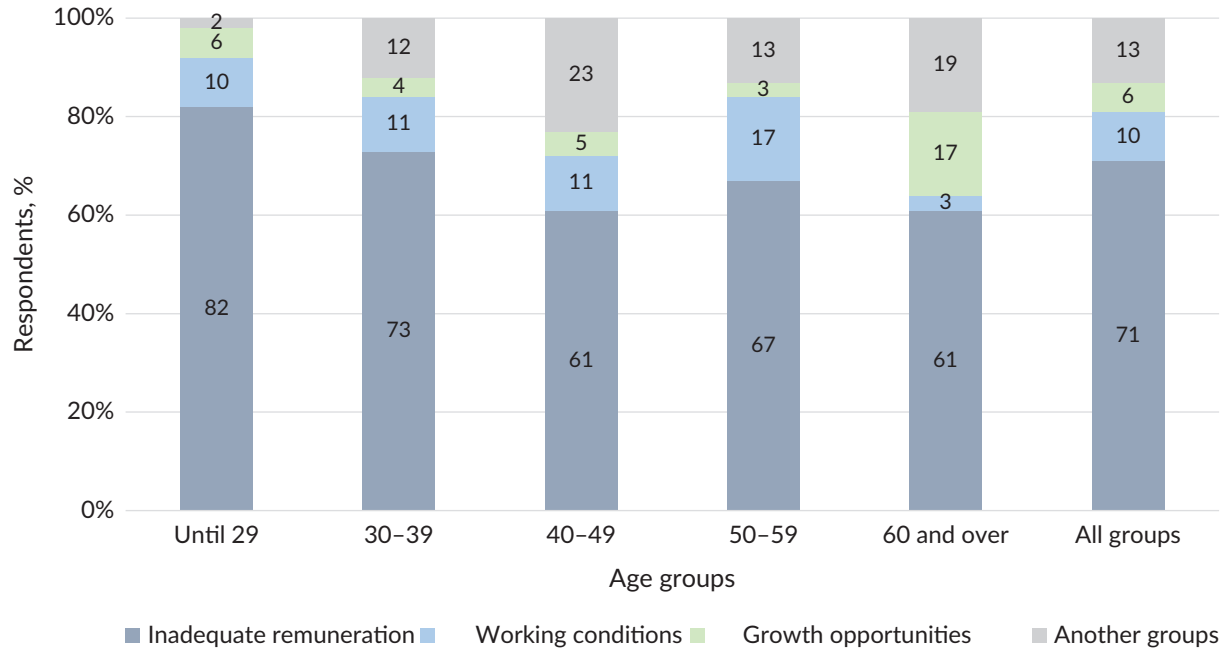

Figure 2. Reasons for emigration by age groups.

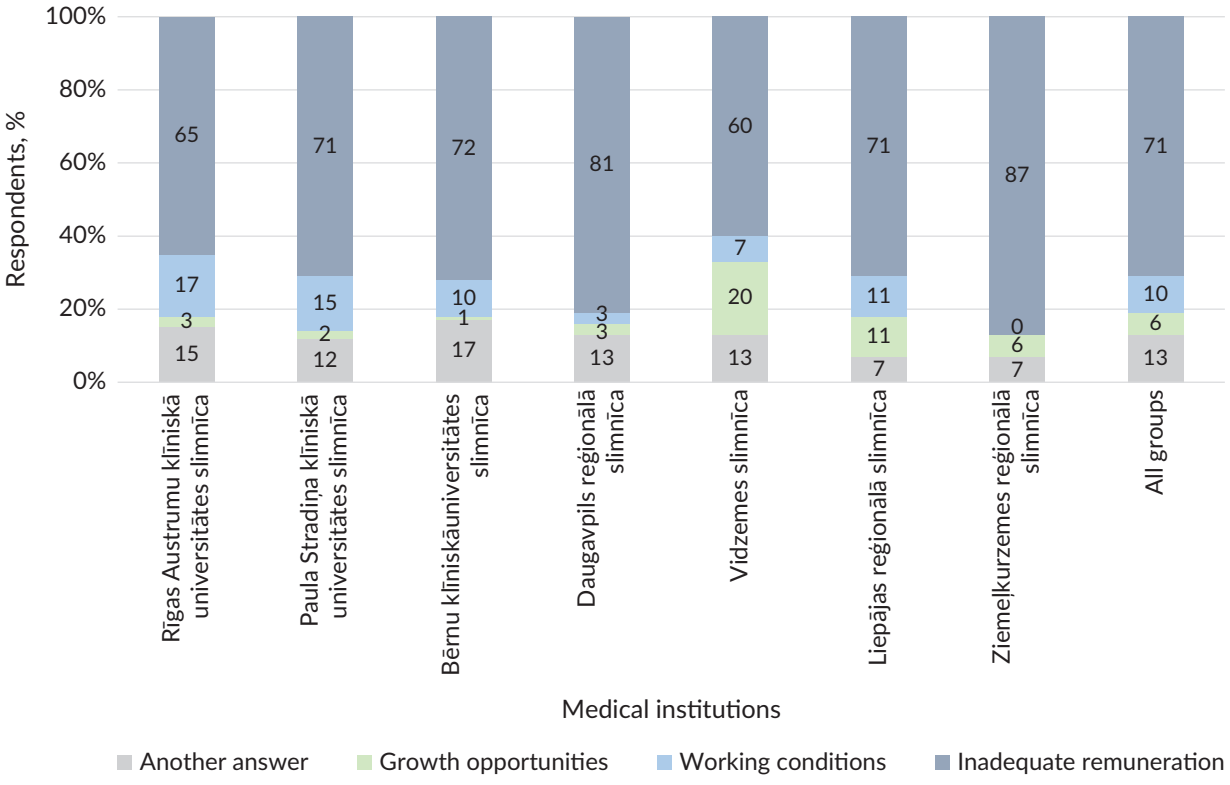

Figure 3. Reasons for emigration by medical institutions.

Figure 4 shows the difference in opinions between doctors and resident doctors.

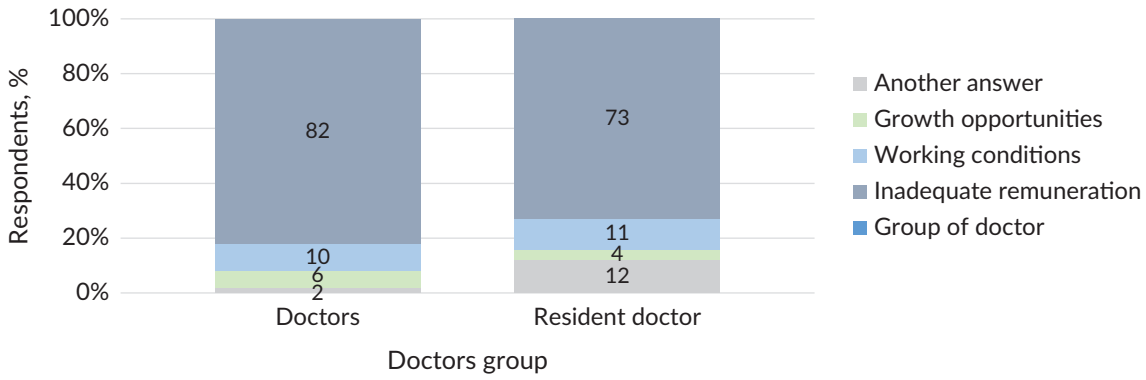

Figure 4. Reasons for emigration by groups of doctors.

Based on the survey, it can be concluded that remuneration is not the only factor the state should address to motivate medical doctors to stay in Latvia; this applies to both respondent groups. Critical aspects also include improving working conditions, providing ongoing professional development opportunities, ensuring job security, and strengthening the overall healthcare infrastructure. Additionally, addressing workload and access to resources can significantly influence doctors' decisions to remain in the country, creating a more attractive and supportive environment for healthcare professionals.

Table 3 shows, in percentage terms, the respondents' opinions on which specialty they believe has the greatest and most noticeable shortage of specialists.

Table 3. Most common answers to the question: In which medical specialties do you think there is the greatest shortage of doctors in Latvia (public sector)?

Specialty	Total responses (%)
Family doctors	12.3
All specialties	8.0
Pediatricians	5.0
Psychiatrists	4.5
Internists	3.8
Emergency medicine	3.8
Rheumatologists	3.5
Neurologists	3.5
Oncologists	3.0
Anesthesiologists	2.8
Surgeons	2.8

The largest proportion of respondents, when asked in which specialty they think there is the greatest shortage of doctors, indicated that it is in general practise. This is a very worrying trend, because a family doctor is the primary healthcare specialist, usually the first person a patient turns to understand what to do next, and to which specialist the patient should be referred.

The largest share of respondents identified family doctors as the specialty with the greatest shortage. This is of particular concern because family doctors are primary healthcare specialists and usually the first point of contact for patients, guiding next steps and referrals to other specialists.

Current data show there are 1,200 family doctors in Latvia, more than 400 of whom are already of retirement age. The greatest concentration of family doctors is in Riga (more than 500), while the Latgale region has the smallest number (141). Across the country's regions, there are fewer than 200 family doctors in the territories of the country: Vidzeme, Kurzeme, and Zemgale (Zalamane & Ozola, 2025). In the capital (Riga) and the metropolitan area, the share of retirement-age doctors is also the highest.

Addressing the shortage and the aging workforce, particularly through targeted recruitment, retention, and regional workforce planning, is crucial to maintain timely, effective primary care across the country.

5. Discussion on Telemedicine in Latvia

In recent years, the Latvian healthcare system has faced significant challenges, primarily in the availability of publicly funded healthcare services and workforce issues. A major reason for doctors leaving the country is salary; therefore, the government must secure funding to increase healthcare personnel's remuneration. However, it's important to note that the significance of salary as a reason for emigration has diminished over time. Based on the survey's results presented above, it could be said that the decision to emigrate may be influenced by such factors as social security benefits, state guarantees, better access to childcare, improved healthcare quality, mortgage loan availability for families, professional development opportunities, and access to advanced technologies. Addressing these challenges is essential for retaining young professionals. However, to find solutions to the above-listed issues requires time.

As it was already underlined, there is a shortage of medical doctors, especially general medical specialists, in rural areas. In the authors' view, expanding the use of telemedicine could help alleviate this problem. Telemedicine uses telecommunications technology to deliver medical services remotely, and includes phone calls, video chats, emails, and text messages. It is also known as telehealth, digital medicine, e-health, or m-health. Telemedicine is defined and regulated in Latvia by the 1997 Medical Treatment Law: the provision of remote healthcare services using information and communication technologies. It encompasses the secure transmission of medical data and information necessary for treatment in text, sound, images, or other formats.

Telemedicine offers several advantages: accessibility, by providing care to patients in remote regions; cost reduction for both patients and providers; experience sharing, which facilitates knowledge exchange among professionals; and remote consultations for patients with disabilities. Moreover, telemedicine includes the use of artificial intelligence and advanced technologies.

The main benefits of robotics in medicine:

1. Surgical precision and safety: Robots allow complex surgeries to be performed with high precision, smaller incisions, less blood loss, and a lower risk of infection.

2. Faster recovery: Thanks to minimally invasive surgery, patients recover faster after operations, shortening hospital stays and post-operative pain.
3. Rehabilitation and mobility: Robotic exoskeletons and assistive devices help patients with movement disorders regain mobility and perform rehabilitation exercises.
4. Pharmacy automation: Robots accurately prepare and dose medications, reducing the risk of errors and freeing up pharmacists' time for other tasks.
5. Support in daily care: Robots can help hospital staff perform routine tasks, such as transporting materials, thereby improving work efficiency.

By incorporating robotics and artificial intelligence into healthcare, medical staff can be relieved, allowing them to perform other duties. Artificial intelligence is increasingly entering medicine, helping to achieve better patient care outcomes and a higher quality patient experience. However, along with many benefits, it also creates challenges—the need for qualified specialists to work with artificial intelligence, and the desire of patients and medical staff to include artificial intelligence in the care process.

Traumatologist and orthopedist Professor Jumtiņš from Riga Stradins University argues:

> The possibilities for improving artificial intelligence are endless and are not yet fully understood. But the most important thing is that artificial intelligence is only an assistant, because it will not be able to replace a doctor, especially a surgeon, or a teacher, 100%. AI is absolutely objective data; its interpretation, while in treating patients, we often have to approach it subjectively, sometimes even intuitively. This is what gives the result. (Ričika et al., 2025)

The current Latvian Minister of Health, Hosams Abu Meri, points to the prospects of telemedicine: "As a partial solution to the lack of human resources, the wider use of telemedicine, which could also be used in rehabilitation" ("Hosams Abu Meri telemedicīnai," 2023).

There are also disadvantages to telemedicine, for example, there is an increased risk of errors, as remote consultations may lead to misunderstandings; telemedicine cannot replace physical examinations, as important diagnostic elements may be missed; regulatory changes are needed, as current laws may need to adapt to reflect telemedicine operation; and the time burden on doctors, as managing remote consultations can be challenging for healthcare providers.

Many doctors believe that direct contact with patients is preferable to remote consultation, especially for children who may have difficulty articulating their problems. Older people are often reluctant to use modern technology. Looking ahead, there will likely be many complex legislative issues that need to be addressed, such as accountability if a robot makes a mistake during an operation and determining who will be responsible.

For example, Madara Kalve, who is a physical and medical rehabilitation physician from Riga Stradins University, Faculty of Residency, conducted a study on the opinion and attitude of Latvian residents towards the use of telemedicine in healthcare (Kalve, 2024). The conclusion of the study confirms the potential of telemedicine, which is enormous, and its thoughtful integration with in-person services can improve conditions for both medical professionals and make services more accessible to patients, thus improving the healthcare system as a whole. The results indicate a positive opinion and readiness to use telemedicine

services among residents of all age groups, which confirms that the time is right for the implementation of telemedicine on a comprehensive level. In order to fully realise the potential, it will be necessary to address technical, legal, and ethical challenges, which may differ for each specialty.

According to the authors' view, another potential solution to the workforce problem is to consider shortening residency programmes in certain specialties. Furthermore, this proposal should be thoroughly evaluated by the Ministry of Health in collaboration with relevant stakeholders, including medical associations.

6. Empowering the Future: Approaches for Attracting and Training Young Resident Doctors

It is important for the country to train young resident doctors, who study in an accredited professional residency training programme in medicine to obtain a speciality and who secure an employment relationship with the medical institution that implements their training programme, whereupon they provide healthcare services under the supervision of a doctor who holds a certificate and is registered in the Register of Healthcare Practitioners.

"Residency" is the education of a doctor in an employment relationship with a medical institution providing an educational programme in order for that doctor to acquire a speciality in accordance with an accredited professional residency training programme in medicine. An essential part of medical education and a prerequisite for obtaining a medical certificate, residency entitles a doctor to practice fully and independently in their speciality.

The legal status of a resident is determined by the Cabinet of Ministers Regulation No.617 of 24 September 2024: "The competence of medical practitioners and students studying medical education programmes in medical practice and the extent of theoretical and practical knowledge of these persons" (Cabinet of Ministers, 2024b). Clause 7 of these regulations stipulates: a resident who is studying a basic specialty, in the first and second years of residency, in accordance with the educational program, exercises a set of professional independence and responsibility under the direct supervision of a specialist certified in the relevant specialty, documenting the clinical experience gained. Clause 8 of these regulations stipulates that a resident, under the guidance of a certified specialist in the relevant specialty, in accordance with the educational program, implements a set of professional independence and compliance, documenting the acquired clinical experience—8.1.: starting from the third year of study, a resident who is studying a basic specialty; or 8.2.: a resident who is studying a subspecialty or additional specialty.

According to this Regulation, the scope of residents' independent work shall be determined by the head of the medical institution on the basis of an assessment of the theoretical knowledge and professional skills acquired by the resident during a study programme, conducted by the head of the relevant residency study programme and a specialist certified in the relevant speciality with at least five years' experience in that speciality after obtaining a medical practitioner's certificate. Following the administrative framework, it could be stressed that the minimum duration of a residency training programme for a person who has already acquired the profession of "doctor" to be eligible for authorisation to practice medicine independently, in accordance with their chosen competence, and after completing a full-time medical study programme, is set separately for each basic speciality of the medical profession. The scope of a resident doctor's independent professional work shall

be determined by the head of the appropriate medical institution based on an assessment of the theoretical knowledge and professional skills acquired by the resident doctor, which is conducted by a certified, trained specialist in the relevant speciality (Slokenberga et al., 2015, p. 277).

The procedure for financing a doctor's residency and the procedure for recovering the associated funding shall be determined by Cabinet Regulation No. 685 of 30th August 2011, being the Procedure for the Admission, Distribution, and Funding of a Residency. Paragraph 3 of Regulation No. 685 states the following:

> The Ministry of Health shall calculate the number of residency places to be financed from the State budget based on the following data: (1) information provided by medical institutions on the number of doctors needed, (2) the number of doctors not working in their main job, (3) the number of unemployed doctors, (4) the number of doctors expected to reach retirement age within the next five years, (5) a mutual analysis of statistical data on the provision of doctors in European Union Member States, (6) the demographic situation and development projections, and (7) projections of the number of healthcare practitioners for full-time workloads. (Cabinet of Ministers, 2011)

Paragraph 28 of these regulations provides that a person whose residency training was financed from the state budget shall, within five years after completing the residency, be in an employment relationship in the relevant medical specialty for three years within the framework of normal working hours (including the sum of the years) in a medical institution established by a public body within the territory of Latvia: in a family doctor's practice, in the Health Inspectorate, or in the Centre for Disease Prevention and Control. Alternatively, they may be employed by a higher education institution in pedagogical or scientific work in the field of the relevant specialty, continue their doctoral studies, or carry out scientific work in a state scientific institute in the field of the relevant specialty.

The mechanism that prepares young doctors in Latvia is good enough for the purpose. However, many young doctors do not end up in the public sector after their residency; they end up in the private sector instead. The Young Doctors' Association underlines the above regulatory framework as a reason for emigration, which stipulates that young doctors must work for three years in the public sector after completing a residency. In this regard, the opinion of the Young Doctors' Association states:

> This violates the free movement of labour and severely restricts a young doctor's choice of future workplace. For example, if a young doctor decides to go for an internship or further research abroad after their residency, they will have to reimburse [the state for] their residency expenses. The Latvian Young Doctors' Association believes that such attempts to forcibly keep young specialists in the country only encourage the current and future emigration of residents and exacerbate the shortage of doctors in Latvia. These Cabinet Regulations have been in force for several years, and reality has shown that such coercive restrictions do not work in the long term and will not retain young professionals in the country. ("Jauno Ārstu asociācija," 2019)

However, when young professionals, faced with the prospect of having to refund the state budget for the investment spent on their education or to work for a certain period, believe that their right to freedom of choice of occupation is being violated, and could in fact even be considered as forced labour. Furthermore, according to Article 106 of the Constitution of Latvia (The Constitution of the Republic of Latvia, 1922):

> Everyone has the right to freely choose the occupation and workplace that suit their abilities and qualifications. Forced labour shall be prohibited. Involvement in the elimination of disasters and their consequences and employment in accordance with a court ruling shall not be considered forced labour.

The Constitutional Court (2012) concluded that the regulatory framework established by the Cabinet of Ministers complies with the Constitution:

> The Concluding statement: "First, according to Regulation No. 120 and Regulation No. 972, a person could choose the means for funding their studies during their residency. The Constitutional Court emphasises that the regulatory enactments do not impose an obligation on a person, but only the right to conclude a contract governed by public law on the payment of the individual's training in residency from the State budget funds. An individual can also pay for their residency training themselves or use the resources of other natural or legal persons, without being obliged to work for a specific medical institution for three years after completing their residency or to reimburse the state budget for the funds spent on their training. Secondly, if an individual has chosen to study in a residency at public expense, they are given the opportunity to choose which of several medical institutions to work in for the next three years. Thirdly, if an individual wishes to work in another medical institution in Latvia or to leave Latvia, they can reimburse the state budget funds spent on their residency training. In addition, these funds shall be repaid over five years, in monthly instalments and without a penalty, instead of being repaid in full immediately. Persons enrolled in a residency program who freely choose to enter a training contract for the payment of training from the State budget funds simultaneously assume certain obligations towards the State. This contract, governed by public law, is a win-win situation: on the one hand, the State commits to paying for the individual's training during their residency, and, on the other, the individual commits to working in the public health system for three years after completing their residency. Thus, the term 'Harm to the rights of the individual' should only be used conditionally in this case. The State has the right to require a person to fulfil the obligations they have undertaken. However, the benefit of this restriction on the right of an individual for the whole society is the possibility to receive healthcare services guaranteed under Article 111 of the Constitution or to recover the State budget funds for the investment in the training of the individual. Consequently, the benefit to society outweighs the fundamental right of the individual contained in the contested regulation."

This judgment of the Constitutional Court notwithstanding, there is an opinion that, in any event, the obligation to work in the public sector for three years after completing one's residency, as laid down in Cabinet of Ministries Regulation No. 685, is contrary to European Union law, which provides for the free movement of labour within the EU. On the one hand, one could agree that there is a certain contradiction with European Union law, which provides for the free movement of labour (Jirgensons, 2024, p. 159). However, on the other hand, it is reasonable for the state, having funded an individual's education, to oblige the individual to work for a certain period in the public sector in a critical field such as medicine. Article 111 of the Constitution provides that the state shall protect human health and guarantee a minimum level of medical assistance to everyone. The framework established by Regulation No. 685 is one of the mechanisms by which the State seeks to ensure the existence and accessibility of medical practitioners and the services they provide to the population. In the author's view, the 3-year compulsory employment period should not be regarded as disproportionately long.

7. Conclusions

The EU legal framework facilitates free movement of labour and recognition of professional qualifications, enabling cross-border labour flows from lower-wage to higher-wage regions. Latvia's 2004 EU accession has significantly affected its labour market, including the emigration of healthcare professionals, which challenges the delivery of healthcare services.

The authors' analysis of horizontal determinants of emigration reasons indicates that it is driven by financial considerations, search for better career opportunities, access to advanced technologies, social security, and more favourable working conditions. These pressures are intensified by insufficient public funding and an aging workforce, with additional strain stemming from regional disparities in the distribution of health services.

The assessment of vertical determinants of the Health Policy implications in Latvia requires proactive government action to strengthen the health system and adopt preventive measures to reduce outward flows. Government strategies should balance mobility with the maintenance of human resources by aligning training with labour market needs and promoting sustainable practices. According to the authors, this includes reconsidering residency requirements to improve retention while ensuring compatibility with EU labour mobility rules and carefully evaluating proposals to adjust repayment of study costs and reimbursement in health service shortage areas. The legal mechanism, where residents who have studied with state budget funds must work for three years in the public sector, is a way for the state to address the availability of human resources in medicine and ensure people have access to medical services.

Given human resource constraints, expanding telemedicine, which is considered one of the possible solutions for securing human resources, and responsibly integrating robotics and artificial intelligence can mitigate regional shortages and improve health care. Public and private funding should ensure these technologies support, rather than replace, high-quality care, while maintaining equity and accessibility.

The restructuring reforms of healthcare both in the EU and in Latvia, coupled with demographic, technological, economic, and institutional changes, have an impact on the desires and wants of healthcare workers as well as on the nature and scope of their work and contributions to the healthcare industry.

The authors' research hypothesis is correct, and the large-scale emigration of healthcare practitioners from Latvia results primarily from unfavourable working conditions and insufficient state retention measures. Strengthening legal frameworks and adopting technological innovations, such as telemedicine, can help balance doctor mobility and ensure sustainable public healthcare delivery.

The study confirms that without timely, evidence-based interventions that address remuneration, working conditions, professional development, and regional distribution, Latvia risks compromising universal access to timely, high-quality healthcare for the population. A comprehensive, coordinated strategy that combines financial investment, retention incentives, workforce planning, and responsible adoption of digital innovations is essential to stabilise and strengthen the health system.

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Conflict of Interests

The authors declare no conflict of interest.

Data Availability

Data is available from the corresponding author upon reasonable request.

LLMs Disclosure

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