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# THE MIGRATION OF HEALTH CARE PROFESSIONALS FROM HUNGARY – GLOBAL FLOWS AND LOCAL RESPONSES

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## **Abstract**

The migration of health care workers is a longstanding process which causes shortages in the sending countries. The Eastern enlargements of the European Union strengthened the East-West migration flows causing serious political controversies and jeopardising medical services. Hungary is also heavily affected by these processes and in the last 10 years; thousands of doctors and nurses left the country. Managing migration processes requires complex policy answers with the involvement of actors from various spatial scales – but most of the studies on medical migration from Hungary focuses on the national scale. To fill this research gap, this study aims to analyse local political responses to the outmigration through the content analysis health care development documents to reveal the role of local scale. On local scale individual needs and preferences, emotional factors can influence the decision on staying or moving. Therefore, local policies, which take local features into account and apply place-based approach, can be useful elements of (re)migration policies in the case of health care workers, too.

Keywords: migration, health care, brain drain, Hungary, policy analysis

# INTRODUCTION

The migration of health care professionals (i.e. physicians, nurses, midwives) is a long-standing global phenomenon. Many countries of Global South have experienced the "medical brain drain", i.e. losing skilled medical workforce due to migration into more developed countries (Bundred & Levitt, 2000; Bach, 2004; Cooper, 2005; Okeke, 2013). Besides these South-North flows, the Eastern enlargement of the European Union increased the East-West migration. After the gradual opening of labour markets, significant number of health care workers have moved from the new member states to the more developed Western countries (Lados et al., 2013;

Botezat & Moraru, 2020). Hungary is also experiencing this problem, which jeopardises health care provision and the well-being of population, thus causes political conflicts (Kovács et al., 2019).

Several researches have analysed the processes and the problems caused by outmigration and medical brain drain: the characteristics of migration flows (Humphries et al., 2019, Domagala et al., 2022), the challenges in health care provision (Apostu et al., 2022; Boboc, Vasile & Ghita, 2011; Zuk et al, 2019), the motivations and preferences of migrant doctors (Humphries et al., 2019; Botezat & Moraru, 2020; Sociu et al., 2017), the possible solutions on national scale, often focusing on wage issues (Witter et al., 2020), etc. However, geographical aspects were often neglected in the previous researches. On the one hand, we can find relatively few examples that peripheral areas are hit more by outmigration of health care professionals, while on the other hand, the importance of locality and identity are neglected during the evaluation of migration motivations. However, according to social concepts of place and space (Soja, 1980; Lefebvre, 1991) places are not only the sites of events or "containers", they are connected with processes and influence the decisions of individuals on migration.

Our main aim is to explore some of the geographical features of medical brain drain from Hungary, and to present the assumed role of place in emigration or stay of doctors (and other healthcare workers) in Hungary from the policymakers' point of view. Thus, the main research questions are the following:

- What is the relevance of the local actors in retention policies aiming at the medical workforce in Hungary?
- How the relation to place (e.g. identity, place attachment) is taken into account in the policies?

The study is based on statistical data and content analysis of development documents. The statistical data is used to reveal the key features of Hungarian medical brain drain and the problems arising from it – thus providing crucial contextual information about the processes. The development documents reveal, how decision-makers interpret the problems; e.g. what are the perceived causes of them. In addition, the approaches reflected in these documents shape policy actions and frame the public opinion as well. Thus, analysing policy documents it is possible to gain a deeper understanding on the processes that affect migration. The COVID-19 pandemic highlights the problems related to the shortage of medical workers; several countries face challenges regarding health care provision thus affecting various aspects of quality of life or economy (see e.g. Morar et al., 2022). The migration of doctors and other health care workers contributed to the evolution of these problems.

# THEORETICAL BACKGROUND

Migration has always been one of the crucial forming factors of population change and labour market processes. However, in recent years the causes, effects, motivations, and even the directions of global migration flows went through significant changes (Docquier & Rapoport, 2009; Nagy, 2010). On the one hand, push and pull factors were intensified, e.g. political instability, lack of job opportunities, or higher pay rates motivate migrants to move abroad, but on the other hand, globalisation has introduced the network factor that might also facilitate migration (Massey et al., 1993; Round, 2008). This change also affected migration research, which mainly was focusing on voluntary migration with a special attention to some subprocesses as the motivations of highly skilled migrants (Carr et al., 2005) and the main characteristics of return migration during the last decades (Cassarino, 2004). Moreover, it is widely accepted that international migration reshapes societies and politics both in origin and destination countries (Castles & Miller, 2009). Hence, the economic approaches of migration were also taken into account (Akay et al., 2013), such as the individual changes (e.g. identity change) that is rooted in the socio-psychological theory (Sussman, 2010).

The migration of health care professionals affects mainly the highly skilled workers who have prominent labour market positions. The flexibility of their knowledge strengthens their motivation to migrate in a lot of cases. International migration of medical and health professionals is an area of increasing policy interest due to the global health workforce crisis (OECD, 2014). Globally, "the medical brain drain problem" is closely following the general trends of international migration: the movement of health care professionals from developing countries to developed countries is escalating rapidly (Astor et al., 2004; Grignon et al., 2012). This main trend has specific reasons (e.g. demand for health care workers, specialisation of health services, ageing, etc.) in the developed countries – especially, in OECD countries –, but on the other hand, has negative effects in the developing countries (e.g. reducing the size and quality of human resources in health care, larger systemic health challenges, etc.) (Luboga, et al., 2011).

There are many push and pull factors that motivate health professionals to migrate (Rutten, 2009): higher income, better working and life conditions, advantaged career prospects, good educational opportunities, earning money for remittances (Aluwihare, 2005; Watkins, 2005; George et al., 2007; Patay, 2018). These economic and social advantages to those who migrate from source countries to destination countries are very similar in the European Union when comparing EU-15 and EU-12 countries. Increasing mobility of health care workers from post-socialist countries in Eastern Europe to the Western European countries is primarily towards higher-paying, more prestigious, more amenity-rich areas. The negative effects of the migration result in specified spatial inequalities at national and international level. For example, health

professionals migrate from rural to urban areas, from lower to higher income countries, from developed countries with lower wages to those with higher ones.

The migration of health care workers may be a feature of globalised labour markets (Anthamatten & Hazen, 2011). Previous researches on the migration of health care professionals have mainly focused on the migration from underdeveloped African and Asian countries to the countries of Global North. Several researches stressed the importance of human resource and training cost loss using a kind of cost-benefit framework (e.g. Grubel & Scott, 1966; Bhagwati & Hamada, 1974; Bhagwati & Rodriquez, 1975; Johnson, 1979). Other researches pointed out that migration can have positive effects on both sending and target countries by creating and strengthening professional and business connections (Meyer & Wattiaux, 2006) or providing extra motivation for learning in the sending countries (Beine et al., 2001; Clemens, 2006). However, these latter approaches emphasise that migration is not a zero-sum game, in which sending countries experience only negative impacts. Instead, they can also benefit from migration through gaining skills, establishing professional networks.

Since the Central and Eastern European medical migration processes intensified after the Eastern Enlargement of the EU, the number of studies focusing on them is constantly growing. The main argument of these researches is that the problems in the health care service caused by the outmigration of professionals and the structural elements (differences in salaries, situation of health care sector, quality of life in the sending and target countries, policies that were designed to slow down, stop or even reverse outmigration or manage its negative effects, etc.) related to medical migration (Ognyanova et al., 2012; Buchanan et al., 2014; Witter et al., 2020). As the researches show, the motivations of outmigration of medical workforce from the region are complex. Aside from higher salaries abroad, other significant factors have their role as well, such as high level of corruption in the source country, better working conditions and equipment in destination countries or possibilities of professional skill-development (Botezat & Moraru, 2020; Domagala & Dubas-Jakóbczyk, 2019). Furthermore, gender and family status also have their roles in migration attitudes; according to various researches, more male practitioners consider leaving their home countries and singles are more likely to emigrate than those doctors who live in a relationship (Gostautaite et al., 2018). Excessive workload can also contribute to migration decisions. In peripheral regions the lack of medical workforce leads to an increasing workload for those who have stayed – thus increasing their dissatisfaction with their working conditions. This can result in a downward spiral of outmigration, further deepening the crisis of health care provision in the affected regions (Glinos, 2015; Pál et al., 2021; Uzzoli et al., 2020). Work-life balance is important for maintaining productivity, job satisfaction – therefore places that contribute a more balanced life (e.g. through providing better quality of life, providing cultural or educational facilities) can have greater possibility to keep their qualified workforce (Connell, 2020).

So far, relatively few studies (e.g. Connell, 2020; Prilleltensky, 2008; Siankam, 2012; Tankwanchi, 2012) analysed the role of place in the migration of health care professionals as most of the researchers focused on national policies and other macro-level processes, and on work environment or migration preferences on the micro-level (e.g. Matutyte et al., 2020, Sociu et al., 2017). Thus, our research aims to highlight the role of place and local embeddedness in the migration-related decisions of individuals.

European countries use various forms of policies to retain or (re)attract medical workforce: personal or professional support (e.g. family-friendly practices), education interventions (e.g. increasing capacities, internships), regulatory interventions (e.g. changes in job-related regulations) and financial measures (salary increase, incentives to attract workforce to underserved areas). However, the effectiveness of the different measures is rarely assessed. Most of the measures is initiated and executed by central governments (Kroezen et al., 2015). Several countries in the post-socialist region (e.g. Poland, Slovenia, Slovakia) increased their training capacities in order to keep the medical workforce stable despite the outmigration processes. Financial measures were also used in the region: increasing the salaries (e.g. Estonia, Slovakia), loans to start health provision business (e.g. Poland) are the most notable examples (Albreht, 2011; Benusová et al., 2011; Kautsch & Czabanowska, 2011; Saar & Habicht, 2011). However, as the example of Lithuania shows, an adequate mix of research-based policies can contribute more effectively to the retention of medical workforce despite the challenges (Starkiene et al., 2013). However, in some cases, the post-socialist countries suffer from the lack of strategic attitude, appropriate institutions and measures. The cooperation among actors from different sectors and geographic and administrative levels is also a problematic issue (Domagala & Klich, 2018).

Based on the results of previous researches, the starting point of this research was that decisions and motivations to outmigration and return migration overlap the aforementioned factors such as different wage level or better living conditions (Christens & Perkins, 2008; Botezat & Moraru, 2020). Previous researches were focusing either on the micro level individual factors (e.g. Wolpert, 1965; Crawford, 1973) (behaviourist approaches) or on the macro level structural factors (e.g. Zelinsky, 1971; Blythe et al., 2009). On the other hand, other, less commonly used approaches, such as the perspective of Eco-Psychopolitical Validity Framework (used mainly in psychological research) aims to incorporate several factors influencing individual migration-related decisions (Christens & Perkins, 2008; Prilleltensky, 2008; Siankam, 2012; Tankwanchi, 2012). These factors contribute to the to a better understanding of the role of different decision-making levels, factors, actors through identifying

the various conditions helping and hampering the wellbeing of individuals – thus affecting one's willingness to migrate or not. According to this analytical framework, individuals seek to overcome the negative state (state of oppression) which is caused by various elements from different geographical scales and by different actors, elements, and processes. According to the researches on the migration of medical workers, low wages, institutional problems, social processes, and political problems all can be behind oppression (Tankwanchi, 2012). According to the Eco-Psychopolitical Validity Framework, these factors all can contribute to the decision to migrate. The process through this happens is called liberation or empowerment: this gives the opportunity to handle difficulties, to solve problems which cause oppression (Siankam, 2012; Tankwanchi, 2012).

As Domagala & Dubas-Jakóbczyk (2019) and Domagala et al. (2022) emphasise in relation to the formation of Polish policies, that modifiable factors, such as physician satisfaction should also be taken into account. Thus, a more complex, holistic approach is needed to deal with the frustration and dissatisfaction of medical professionals – as other researches in the post-socialist countries have also demonstrated (e.g. Apostu et al., 2022). In our research, we interpreted localities (i.e. geographical places) as a possible sources and actors of liberation and satisfaction. Place attachment, identity, feeling home, being integrated into a social network, the feeling to be important in a community all can be sources of liberation a satisfaction. Furthermore, successful policies have to be context sensitive, more participatory, thus creating a more favourable environment and providing flexible answer to the challenges (Kroezen et al., 2015; Kuhlmann et al., 2018). Through the analysis of health care development documents, we investigated whether they use this potential role of localities or not.

# **DATA AND METHODS**

The study is based on the analysis of statistical data on medical migration and a qualitative content analysis of policy documents. The statistical data serve to present the context and the magnitude of the processes, while the documents provide insights to the policy answers; the approaches, aims and tools of the policymakers.

As the first step of the empirical phase of the research, statistical data related to the migration of health care professionals was analysed, in order to reveal the context of medical migration to Hungary. It is important to note that usually statistical analyses of migration usually do not provide a comprehensive and accurate picture of the process because of the free movement principle of the EU as the labour force can move without barriers within the unified labour market. However, the case of doctors is a slightly different as they have to register themselves at the Office of Health Authorisation and Administrative Procedures (OHAAP) of to get an

official recognition of their specialisation – which makes their job seeking easier. Therefore, this can provide us a dataset on those who plan to migrate, however, its limitations must be taken into account. The first one is that the intention of migration (i.e. registration) is not equal with actual migration. The second one is related to the registration. There are outmigrants who do not register themselves (e.g. for nurses this method is not applicable or doctors can also skip the registration and irrespectively of that apply for a job abroad). Furthermore, the number of registrations is different from the number of actual migrants, since the data shows the number of registrations for different specialisations, not the individual doctors. As physicians' can have multiple specialisations, thus, for example, a doctor with three specialisations could appear in the statistics three times (once for each specialisation) if all of his/her specialisation is registered. Last, but not least, the statistics do not show if a doctor had a job abroad but returned to Hungary or those ones who only have a part-time job abroad (e.g. works abroad at the weekend for additional income). In this case, they could be in the statistics if they registered themselves at the OHAAP, but in reality, they are not working abroad – therefore, the statistical data could be misleading.

As the second step of our analysis, we analysed local, regional, and national policy documents and strategic plans to explore the role of localities in the decisions related to migration or staying. "General" development documents usually present a general description of health status and health care provision of the areas concerned. Therefore, these do not provide sufficient information on the local efforts to manage the migration of medical workforce. Thus, the main body of this material was constituted by a special kind of documents called local health care development plan/strategy. The importance of these strategies is that they serve as a basis for fostering local initiatives using local knowledge and implementing bottom-up development logic in order to improve local health care and quality of life (Füzesi et al., 2001; Beke, 2019). We collected all the publicly available documents from the homepages of local, regional and national authorities. The reason behind the decision to search online these materials is that authorities have to make their development documents available online - therefore, theoretically, the majority of the completed and still valid plans and strategies should be available online. Based on this, at first, we checked the homepages of the largest towns and county seats for the documents. Thereafter, we searched the internet using the terms of "Egészségfejlesztési Terv" (Health Care Development Plan) and "Egészségfejlesztési Stratégia" (Health Care Development Strategy), but the general development documents and the special health related ones (e.g. drug strategies) were excluded from our analysis. Consequently, 57 development documents (from local, micro-regional, regional and national

scale) were selected and analysed altogether, the earliest was adopted in 1998, while the most recent was in 2013. Thus, the timeframe of the document analysis is 1998-2013.

In the content analysis the following aspects were examined: the role of place and local actors in the documents, the target group of proposed measures (e.g. residents, doctors, other health care worker, etc.), problems mentioned (e.g. aging medical staff, outmigration of professionals, wages in health care sector, etc.), areas of proposed intervention (e.g. renewal of buildings, equipment, trainings for staff, training for residents). In other words: how the analysed documents deal with the problems highlighted by the statistical analysis?

## **RESULTS**

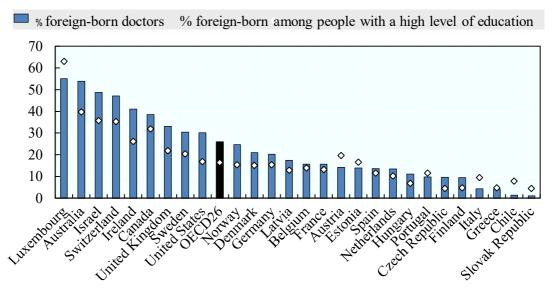
# The migration of health care professionals – global processes and the Hungarian context

Because of various economic, demographic, and political reasons, the global migration of health care professionals is a long-standing process. The training of doctors is an expensive and time-consuming process requiring a lot of expertise, therefore, it is not possible to react to the growing demand promptly without attracting foreign workforce. The ageing societies of Western countries increase the need for human resources for health (HRH) – which causes a favourable situation for migration. The growing demand and the shortage of health professionals make it easy for nurses and doctors from underdeveloped regions to find a job in more developed countries. Moreover, the global economic crisis (2008-2009) has led to austerity policies in a lot of countries, which resulted in decreasing funding for the health care sector causing decline in working conditions and in wages (Solberg et al., 2013). As push factors, these elements contributed to the strengthening migration flows of HRH from the crisis-hit countries. Therefore, medical brain drain represents a significant transfer of resources and knowledge from underdeveloped, crisis-hit countries towards more developed countries (Blacklock et al., 2012; Groenhout, 2012).

Some of the countries of Global North are heavily reliant on the immigration of health care workers from abroad (Forcier et al., 2004; Cooper, 2005) (Fig. 1). For example, the ratio of foreign-born physicians in the United States is 24.4%, New Zealand, Australia, Ireland, Canada or the United Kingdom have even higher numbers. The most obvious policy answers in the source countries are to restrict international mobility with legal measures. However, these policies are not successful - as previous researches highlighted - because of the problems of arising from the side of administration and implementation (Reid, 2001; Dovlo, 2003). Furthermore, the free movement principle of the European Union aims to eliminate such

measures which are considered to hinder common labour market, thus jeopardisingeconomic development.

Figure 1 Ratio of foreign-born physicians in some OECD countries, 2019



Source: OECD

As mentioned earlier, the outmigration of medical workers has serious impact on human resources, finances, and health service provision. In addition, the migrants are possible role models, potential entrepreneurs, employers, and trainers of under- and postgraduate students thus their movement also decreases the average educational level in the sending countries (Aluwihare, 2005; Cooper, 2005). Therefore, it is understandable, that sending countries try to slow down or stop the migration of doctors and other skilled health care workers and convince those to return who have already moved to other countries. Several forms of policy answers can be found regarding these issues in developing Asian, African and Latin-American countries. In Ghana, for example, policy makers thought that the increased capacities in health workers' training could be a solution – this strategy is used in Central Eastern European countries as well. However, it turned out that because of the strong pull factors, it was not an efficient tool, either. The demand for health professionals is so strong, that target countries attract the increased number of health workers, even so (Dovlo, 2003; Hagopian et al., 2005). Furthermore, the expansion of training capacities also increases the training costs on national scale, while the economic return (i.e. the staying professionals who contribute to the national economy) would not grow significantly in the same way. Besides, in several countries incentives and income raise were introduced to keep the workforce, however, this also resulted in mixed results: in some cases, the system of incentives has led to growing dissatisfaction because of the perceived disadvantage in some professions or geographical areas. This dissatisfaction could also lead to increasing outmigration. Other solutions were also implemented such as community-based training of doctors to provide locally relevant knowledge, or extended retirement age to fill the gaps in labour market caused by outmigration while changing the language of education from English to Thai in Thailand decreased the attractiveness of Thai health workers in target countries (Dovlo, 2003). However, changing the language of training could have negative effects, as the quality of education may fall since the most recent research materials and literature are available in English (Hussey, 2007).

Most of the above-mentioned measures were implemented on national scale by governmental actors and their main aim was to reduce the negative effects of outmigration on a macro-scale. The locally embedded initiatives seem to be less prevalent. Moreover, it is important to highlight, that migration can have significant negative effects on the individuals' family relations, well-being, integration in the host country, professional and social status, etc. (Hnatiue, 2011).

Aforementioned, the EU enlargement in 2004 and 2007 and the liberalization of the labour market in EU15 facilitated the migration of health care professionals from post-socialist countries. In terms of maintaining health systems, outmigration of qualified workers is harmful for the sending countries in Central and East Europe, moreover, emotional and financial loss of the country is significant, as well. Besides, lack of health professionals enhances the so called "health paradox in East Central Europe"; the health status of societies is worse than it could be expected based on the economic development level of the countries concerned (Pál & Uzzoli, 2008).

The above-mentioned phenomena could be experienced in Hungary, as well. According to the Office of Health Authorisation and Administrative Procedures and previous researches, more than 10 000 health care professionals left Hungary until 2014 (Balázs, 2009, 2012). According to surveys (e.g. Gyorffy, Dweik & Girasek (2018), around 40% of Hungarian resident doctors plan to migrate. The number of doctors moving abroad equals the number of graduates in every year. The most important destination countries are the United Kingdom, Germany, and Austria (Fig. 3), because of the higher wages and the acquired language skills of doctors (i.e. most of them speak English or German as foreign language, therefore they can be easily integrated into the local labour market).

For the sake of reducing outmigration, several initiations were implemented by the Hungarian government with slight results. Among the implemented measures the most important ones were: (i) restriction of mobility, (ii) enhancement of working conditions, (iii) increased salaries, (iv) grants and other incentives. The restriction of mobility was manifested the most visibly in the so-called student contracts, as university students have to stay and work in Hungary after their graduation for a certain time. As the part of the enhancement of working

conditions, new equipments were bought and several hospitals were renewed. The problem of salaries is considered as one of the main issues in the Hungarian health care. To solve this problem, the Hungarian government increased the salaries of medical workers – however, the earnings are still lower than the salaries in Germany, Switzerland, Austria, United Kingdom, or other Western European countries. Last but not least, grants were introduced to attract doctors to peripheral regions or to keep resident doctors in these areas to prevent the further outmigration and keep younger generations of doctors.

Several researches were implemented because of the relevance and consequences of doctors' migration in Hungary. On the one hand, they were mainly based on statistical databases focusing on the size, statistical features and geographical directions of migration (Eke et al., 2009; Girasek et al., 2013), on the other hand, the possible deficiencies in measurement were investigated (Balázs, 2009; Girasek, 2012). In addition, some researches were focusing on one specific target group of health care professionals (Fejérdy et al., 2004) using questionnaire surveys to reveal migration motivations of medical university students about to graduate, and trying to provide estimations about migration tendencies in the nearest future (Girasek et al., 2009; Girasek, 2012). These researches revealed the complex nature of migration decisions and the high level of willingness to migrate.

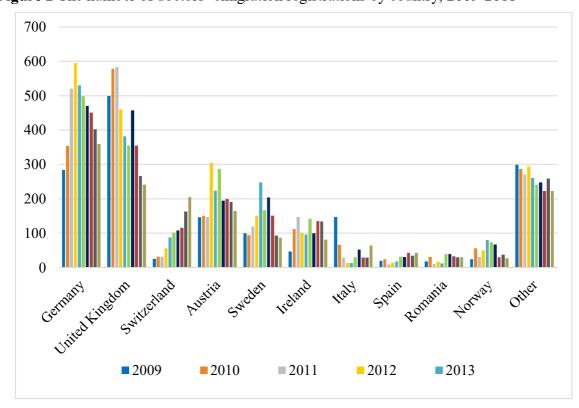


Figure 2 The number of doctors' emigration registrations by country, 2009-2018

Source: OHAAP

The statistics on the migration of physicians reveals the most popular destination countries. According to the number of registrations, the most popular destination for Hungarian doctors is Germany since the opening of German labour market in 2011 (Fig. 2). The number of physicians who plan to move to the United Kingdom shows a slight decrease since 2011 because the British labour market was open for Hungarian doctors since the Accession to the European Union (2004), while other countries (e.g. Germany) opened their labour market gradually. Thus, with the widening accessibility of new destination countries resulted that emigration was divided between more countries.

The outmigration of health care professionals causes problems in health care provision in Hungary. The lack of doctors hits harder the peripheral and lagging behind regions – deepening their social problems (Fig. 3). Thus, managing outmigration could be crucial element in enhancing quality of life in these regions.

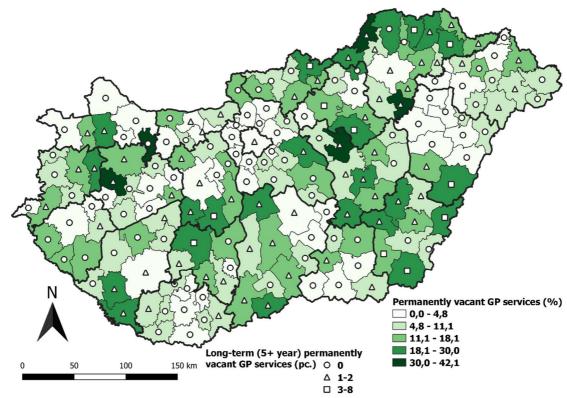


Figure 3 Long-term vacancies in general practices in Hungarian micro-regions, 2018.

Source: NPHI

Since mostly the young and middle-aged physicians move abroad, the average age of doctors and the ratio of doctors approaching their retirement age are both increasing. In half of the Hungarian counties, the percentage of doctors over the age of 60 is higher than 25% (Fig. 4). As a consequence, doctors have to work after retirement (otherwise there would not be a

substitution for them), and health care services are going to be further jeopardised in the near future because of the ageing workforce.

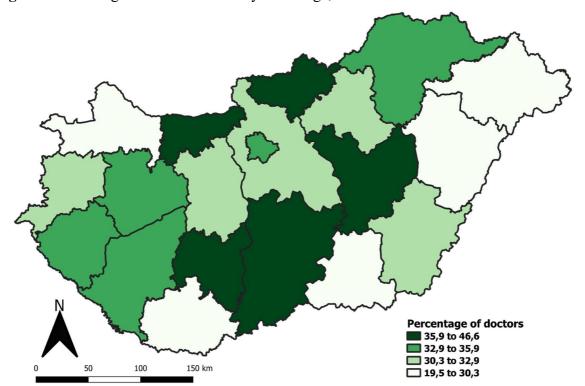


Figure 4 Percentage of doctors over 60 years of age, 2018.

Source: CSO

The number of job vacancies is growing since 2009. In 2009, the last major reorganisation and capacity cut took place in the Hungarian health care, which resulted in a sudden decrease in vacancies in this year. However, this was only an administrative move, which did not stop the growth in job vacancies and the outmigration of physicians. Furthermore, since some of the doctors has more jobs (in some cases even 4-5 different positions), the overall number of vacancies does not seem to be extremely high. However, it is a result of overwork of physicians – which influences the quality of health care provision. Thus, the 'real' situation is worse than the statistics show.

Immigration could be a solution to the problems caused by medical brain drain and incoming doctors from other countries could be a substitute for the ones who left Hungary. This is a common solution and is often utilised to handle labour shortages, as for example, richer African countries (e.g. South Africa, Namibia) do so, and recruit international migrant health care workers from other poorer African countries (Dovlo, 2003). However, according to the data provided by OHAAP (Fig. 5), the number of incoming doctors is less than those of the outmigrating ones. Because of the language barrier, the immigrant doctors are mainly ethnic

Hungarians from the neighbouring countries (Romania and Slovakia being the most prominent ones in this case) who do not have problems communicating with patients. According to some results, a lot of incoming doctors see Hungary as an interim destination and plan to move to Western Europe after spending a few years in the Hungarian health care system. Therefore, Hungary is rather a sending than a target country for incoming medical workers.

Figure 5 The number of incoming doctors to Hungary by nationality, 2009-2018.

Source: OHAAP

# Locality and medical migration – policy answers

In this section the Hungarian policy answers to medical migration are analysed. The basis of this part is the content analysis of local health care plans prepared and adopted by local governments. In addition, documents from other spatial scales are also analysed, in order to understand better the policy framework. Local health care development plans and strategies show a great variety in terms of length and structure. The shortest one was only 8 pages while the longest 268. Interestingly, the size of locality for which the plan or strategy was compiled, does not correspond to the length of the material: e.g. in the case of Budapest, it was 53 pages, while in the case of some villages (with a few thousand inhabitants) was more than 100 pages. The authors themselves – who wrote these plans - also show great variety: among them were local doctors, independent development agencies, departments of the local governments, local

development experts, or consortia of various professionals who worked out the health care development plans and strategies. Thus, the approaches used and structures can vary from one document to another.

Having analysed these documents, we found that the problem related to the outmigration of doctors, nurses, or any other medical staff are rarely discussed topics in local development documents. Instead, local health conditions, infrastructural issues, medical equipment or legal conditions were discussed in more detailed manner. Only one of the documents mentioned the problem of the ageing of health care workers as a possible threat to medical services;

"5 dentists among the owners of 31 praxes are older than 60 years. The law describes the conditions of transfer of praxes; currently one transfer is ongoing." (County seat in Eastern Hungary)

According to this document national initiatives - grants provided for resident doctors by national government - are the potential solutions for the lack of doctors and finding replacements for retired physicians.

Most of the documents focus on the residents, for example, highlighting the most important health problems among them. The most prominent element of the plans proved to be the emphasis on health and lifestyle education, as the following quotes demonstrate:

"The aim is to promote knowledge on healthy nutrition" (County seat in a peripheral region)

"We have to decrease the prevalence of addictions" (small town in a peripheral region) "To encourage health conscious attitudes, raising the awareness to preventive measures. These aspects should be emphasised in education as well. (small town in a Western Hungary)

"To acknowledge health as a value." (County seat in Western Hungary)

According to the results of the analysis, the decision-makers were focusing mainly on aspects of quality of life and health awareness. In this manner, the actors of change (i.e. health care professionals) were considered as given elements of the system and their tasks were defined. But the role and the situation of the doctors, nurses and other health care workers were both completely neglected. To sum up, most of the local health care development documents do not pay much direct attention to medical workforce and the threats on human resources of health care. In some cases, the content of documents was too general as they do not focus exclusively on health care issues but on broader development problems.

Only 4 out of 57 analysed documents mention the role of place. One of them (a county seat with 100 000 inhabitants) present place as a container, as a place where health related issues

occur. Two others (one of them is from a middle-sized town while the other is a county-level document from Western Hungary) apply a more active interpretation of place, presenting it as a possible resource for health care provision. But neither of them specifies the opportunities in detail. The last one is discussing a micro-region and in its health development strategy, the place is presented as the first place for intervention and an assemblage of processes and relations. Only four out of the analysed documents propose initiatives which target medical workers. The proposed measures are not detailed – the general principles are laid down instead, as the following quote demonstrates:

"The local authority has to support the migration of doctors into the town with the creation of favourable conditions for them and their families." (Small town in Northern Hungary)

The migration of health workers was mentioned only in one local development document – from a peripheral town in Eastern Hungary. Therefore, there were no local initiatives proposed to deal with the problems caused by migration or to keep medical workforce. At the same time, migration trends of the concerned region or town were usually discussed without any reference to the medical workforce – as if they were outside of the general social processes.

The doctors and nurses are usually mentioned when the document is presenting the medical infrastructure of the towns or villages. They sum up how many general practitioners and specialised doctors, pharmacies are available locally and what centres of medical services are nearby. Usually, the number of cases treated by local doctors is also presented to describe the typical health problems. In several cases, other institutions which are not directly connected to health care provision (e.g. community centres, schools etc.), are also presented as possible locations for activities to enhance local health awareness.

At the same time, the problem is much more discussed in documents on national level but only those ones which were adopted after 2004. The earliest analysed document (Béla Johan Programme, 2002) surprisingly neglects the threat of medical brain drain, in spite of being adopted only two years before the EU accession. The document adopted in 2011 (Semmelweis Plan) have identified the problems and possible threats of outmigration. This plan interprets migration as a structural process, which is driven by higher wages and other factors in Western and Northern European countries;

"The lack of resources has resulted in low wages. Together with the instability and the lack of professional perspectives, the outmigration of doctors and other medical workers is increasing. This could lead to difficulties in health care provision."

Therefore, the proposals made in it focus on material elements and higher wages, better medical equipment, renewed or new offices and hospitals are identified as the most important tools to manage the threat of outmigration. The Semmelweis Plan also highlights the threat of outmigration and proposes the continuation of earlier governmental programs (grants, increase of wages). At the same time, gender and family status are both neglected in the analysed documents. These factors are usually not mentioned or considered significantly less important compared to the wages or working conditions.

To sum up the above, the role of place seems to be marginal in health care development documents and the dominant discourse is the traditional/nationalist one which emphasises the loss of human resources, training costs and the threat on the quality of life of residents. Wages are considered as the most important motivation of migration, therefore, the proposals usually focus on the improvement of material conditions. Documents from sub-national and national scale seem to be more sophisticated and contain more concrete and more relevant analyses and proposals. Place attachment, identity, local working conditions or embeddedness in local social networks are mostly neglected in the development plans.

# **DISCUSSION**

The migration trends of Hungarian health care professionals are similar to those experiences in African or Asian countries: doctors and nurses leave the country in great numbers which endanger health care provision. The policy answers to this phenomenon are also similar to the previously experienced ones (e.g. Robinson, 2007; Witter et al., 2020): restriction of mobility through legal bonds and gradual improvement in salaries or in working conditions. Since the demand for health care workers is still high and the gap in incomes is still significant, these measures cannot solve the problems. A more active role of localities and local actors could be used to increase the efficiency of migration policies; i.e. improving local conditions or focusing on the emotional factors (e.g. local identity, emotional bonds) of migration decisions.

According to the available data, the outmigration of Hungarian doctors is a significant problem. It causes problems in the health care provision – especially in peripheral areas. Thus it is crucial to understand of local (and national and national) preparedness to migration processes – which is reflected in the development documents. The results show that the role of local scale is marginal in the public discourse and the management of outmigration – thus the policy answers lack the necessary context sensitivity and the cooperation between stakeholders is also weak. This corresponds with the experiences in other countries (e.g. Romania, Poland

from the region): the most popular approaches regarding medical brain drain are the traditional ones with cost-benefit analyses and most of the measures are taken on the national scale. At the same time, due to the rapid changes (and the associated problems), those approaches which try to emphasise the possible benefits of migration are missing. Moreover, due to the importance of the issue, debates on the migration of doctors can be both ideological and political, and the political side determines the points of view.

In the Hungarian development documents, healthcare professionals were regarded as "components" that are easy to replace, but not actors of change. Strategy documents and healthcare development plans do not deal with space and place and do not try to utilise it. There are three interrelated reasons of this situation. The first is the centralised political structure which was strengthened in the last couple of years (Loewen, 2018; Hoffman, 2018; Szatmári & Hoffman, 2020). The second one is also related to the centralisation as most of the local authorities have very limited resources which prevent them to actively contribute to policies aimed at dealing with outmigration (Somlódyné Pfeil, 2017; Szabó, Józsa & Gordos, 2021). The third reason is the following: according to decision makers, the migration of physicians, nurses, midwives, and other medical workers are considered as a process driven exclusively by the higher wages in destination countries. Therefore, decision on migration is interpreted as a rational choice – which is a narrow interpretation of the process and ignores the emotional factors. As a result, local responsibilities and possibilities are also missing from the answers provided by local decision-makers.

However, income is not the only one oppressing factor for health care workers. General well-being, trust or distrust towards colleagues, politicians, local and national actors, identity and local embeddedness (or the lack of it) etc. all have their role. According to various theories (e.g. Massey et al., 1993; Nagy, 2021; Forcier, Simoens & Giuffrida, 2004; Siankam, 2012) focusing only one, hence crucial element of decisions to migrate or not, the long-term efficiency of policies is questionable. As other researches in the region demonstrate the motivations of migration decisions cumulate; thus multi-dimensional responses can be more successful (Botezat & Moraru, 2020).

These results may also have a wider geographical relevance since they can be also interpreted in the context of social production of space, place, and geographical scales, as documents made on local and national scales both consider migration as a problem to be managed on national scale. Thus, they contribute to the predominance of national scale (Sági, 2022). Local policy makers and other actors give up the possibility to influence migration processes among health care workers. As a consequence, there are new local health development plans since the

adaptation of the ones analysed in this study. However, despite the above-mentioned factors, local authorities still have the legal basis to implement local policies to retain or re-attract health care workers, e.g. through differentiated wages, financial help for settling in or starting a practice. Furthermore, other instruments which do not require significant financial support could also be applied, e.g. local appreciation of health care workers, strengthening their motivation, local identity or local embeddedness. Still, the analysed development documents neglect these opportunities – which is rooted in their approach, which focuses on the material and rational elements of decision-making. Space and place are considered as passive elements of socio-spatial processes as locations or containers which do not have influence on health care provision or migration decisions.

## **CONCLUSION**

The outmigration of Hungarian doctors and nurses remains a problem in the future. To give more appropriate and effective policy answers, policy makers should mobilise resources in other scales besides the national one. According to our results, the active role of place and local factors are not appreciated in local and national health care policy. As a result, place-based policies are rarely formulated, the generalised solutions are widespread. In our point of view, effective policies should consider the diversity of motivations, actors, life situations which all influence migration decisions.

Obviously, local conditions alone cannot slow down, stop or reverse outmigration processes. As our analytical framework suggests, the decision on staying or moving is a result of the interplay of various actors, scales, processes, rational and emotional elements. On local scale, rational and emotional elements both can have significant effects on migration related decisions. As several previous researches demonstrate, the migration-related behaviour of medical workers is shaped by various elements. Better working conditions, place attachment, strong local identity can all contribute to keeping the skilled workforce in health care. Of course, medical brain drain is a national (or even international) problem, but various actors from different scales could contribute to more efficient and nuanced policy answers.

Last, but not least, different actors of health care policy influence social production of place, space, and scale. Local actors, through their passive role they strengthen the power asymmetry and also may strengthen those processes which are parts of the oppressive elements in positions of health care professionals.

Like any piece of research, this study has certain limitations that need to be highlighted. The analysis was limited to Hungary; thus the findings cannot be generalized. The efficiency of the policies cannot be evaluated based on the policy documents: the implementation process should be analysed as well. The policies only reveal the approaches and intentions of decision makers but it remains to be seen which elements of these documents were implemented? The analysed timeframe is also limitation, since several political and other factors had effect on migration decisions of medical professionals — for example, the challenges related to COVID-19 pandemic or the governmental reforms in health care. The effects of these factors are yet to be analysed.

The study revealed several various directions for future research. First, the analyses should focus on the comparative aspects, aiming to reveal the similarities and differences in the policy approaches of various countries. Second, the implementation of the strategies should be also analysed; which elements were implemented, and which ones were not? The effects (e.g. increased workload, risk, governmental reactions to the pandemic etc.) of the COVID-19 pandemic should be investigated as well. Last, but not least, the effects of policies should be also analysed through surveys among health care professionals; how the policy actions affected their migration attitudes? These surveys also could offer opportunities to compare the assumptions reflected in the policies and the motivations of health care professionals.

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