

# The Possible Effects of Health Professional Mobility on Access to Care for Patients

Irene A. Glinos

**Abstract** The chapter explains how health professional mobility impacts on the resources and capacity available within a health system, and how this affects service delivery and access. The contrasting experiences of destination countries, which receive foreign inflows of health professionals, and of source countries, which lose workforce due to outflows, are illustrated with country examples. The evidence opens the debate on how EU countries compete for health workforce, what this means for resource-strained, crisis-hit Member States, and whether there is any room for intra-European solidarity. The nexus between patient mobility and health professional mobility is moreover highlighted. This take on free mobility in the EU has received little attention, and while evidence is scarce, it calls for careful analysis when considering the possible effects of free movement on access to care in national health systems. The chapter reformulates the question on ‘who wins’ and ‘who loses’ from freedom of movement in the EU to turn our attention away from those *who go abroad for care* and instead focus on those *who stay at home*.

**Keywords** Health professionals · Mobility · Migration · Health workforce · Service delivery · Access to care

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I. A. Glinos (✉)

European Observatory on Health Systems and Policies, Rue de l'Autonomie 4 1070  
Brussels, Belgium

e-mail: [igl@obs.euro.who.int](mailto:igl@obs.euro.who.int)

## 1 Introduction: Why a Chapter on Health Professional Mobility?

The topic of patient mobility is receiving considerable and growing attention in Europe and elsewhere. As a result of advancements in medicine, transportation, and communication, new options have opened up to patients, and providers around the world are eager to respond to their needs. In the EU, 15 years of supranational jurisprudence and ensuing legislation have put patient mobility firmly on the policy agenda (Palm and Glinos 2010). One intensely debated issue is to what extent public, statutory health systems should pay for planned, non-emergency care obtained in another EU Member State.<sup>1</sup> Advocates of free patient mobility essentially argue that European patients should enjoy the same rights independently of where they live—if providers in another EU country are able to give the ‘best’ treatment, it is fair that patients have access to it within a union built on freedom of movement. Campaigns such as ‘Europe for patients’, launched by the European Commission in 2008,<sup>2</sup> capture this logic.

Arguments in favor of pan-European patient mobility and Europe-wide access to care may be emotively strong however they only tell part of the story. Planned health care received in another country is the tip of the health care consumption iceberg. The bulk of health care is consumed and delivered within the borders of national health systems. Out of 28 European countries, only three (Luxembourg, Cyprus and Iceland) spent more than 1 % of health expenditure on services delivered abroad in 2010 (OECD 2012). In a country like the Netherlands, ‘imported’ care represented 0.8 % of the €36 billion health care budget in 2010.<sup>3</sup> These percentages may well include costs from travelers who need emergency care while abroad. The real question therefore is what happens to the 99 % of patients who receive care within their home system—in what ways does freedom of movement affect access options and care delivery within health systems in the EU?

Patients’ access to the treatment they need depends not only on their entitlements (the focus of patient mobility debates) but on whether the appropriate, qualified health professionals are available to deliver the services. A skilled and sufficient health workforce is the backbone of any health system. The migration of health professionals—as opposed to that of patients—is potentially a much more important issue if the objective pursued is to ensure access to care (Glinos 2012).

The chapter will explain how health professional mobility impacts on the resources and capacity available within a health system, and how this affects service delivery and access. The contrasting experiences of destination countries, which receive foreign inflows of health professionals, and of source countries,

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<sup>1</sup> A distinction is made here between planned care for which the patients travels deliberately to another country, and emergency care which the patient needs while traveling abroad. In this chapter, ‘patient mobility’ refers only to traveling abroad for planned care.

<sup>2</sup> [http://ec.europa.eu/health-eu/europe\\_for\\_patients/about/index\\_en.htm](http://ec.europa.eu/health-eu/europe_for_patients/about/index_en.htm).

<sup>3</sup> Dutch Health Insurance Board. [www.cvz.nl/zorgcijfers/zvw-lasten/zvw-lasten.html](http://www.cvz.nl/zorgcijfers/zvw-lasten/zvw-lasten.html).

which loose workforce due to outflows, will be illustrated with country examples. The evidence will serve to open the debate on how EU countries compete for health workforce, what this means for resource-strained, crisis-hit Member States, and whether there is any room for intra-European solidarity. This take on free mobility in the EU has received little attention, and while evidence is scarce, it calls for careful analysis when considering the possible effects of free movement on access to care in national health systems. The chapter reformulates the question on ‘who wins’ and ‘who loses’ from free mobility in the EU to turn our attention away from those *who go abroad for care* and instead focus on those *who stay at home*.

## 2 Methodology

The majority of information provided in this chapter derives from the volume ‘Health professional mobility and health systems: Evidence from 17 European countries’ (2011), edited by Wismar, Maier, Glinos, Dussault and Figueras. The volume covers quantitative and qualitative data on health professional mobility from 17 European countries,<sup>4</sup> as well as quantitative data from an additional eight OECD countries<sup>5</sup> (2008 data or latest year available). The data has been complemented with other scientific sources. Grey literature has been used given the scarcity of official information and the broad media coverage of the topic in particular related to the effects of the economic crisis.

## 3 The Link Between Health Professional Mobility and Service Delivery

One of the key ways health professional mobility impacts on the performance of health systems is by changing the composition of the health workforce in both sending and receiving countries. These gains and losses may strengthen or weaken the performance of health systems and, while the numbers of health professionals leaving or arriving may appear negligible, produce visible impacts when numbers increase or when mobility continues over years. Health professional mobility also affects a health system’s skill-mix, i.e. the range of skills and competences of the total health workforce, since skills travel with the mobile health professional. When these skills are rare and essential, outflows of even small numbers of health professionals can impact on service delivery and access. Health professional

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<sup>4</sup> Austria, Belgium, Estonia, Finland, France, Germany, Hungary, Italy, Lithuania, Poland, Romania, Serbia, Slovakia, Slovenia, Spain, Turkey, and the UK.

<sup>5</sup> Australia, Canada, Ireland, New Zealand, Norway, Sweden, Switzerland, and the USA.

mobility can also affect the geographical distribution of health workers in a country. A disproportionately high outflow from a region may cause or aggravate maldistribution, resulting in under-supplied and underserved areas in which the local population is left without sufficient health professionals. Two factors however limit our understanding of the effects of health professional mobility: the scarcity of accurate, comparable and up-to-date data on in- and outflows to and from countries (in particular outflows); and the indirect impact of health professional mobility on service delivery and health system performance where a complex chain of causalities makes it difficult to ascertain what effects are due to what causes (Wismar et al. 2011).

In the following two sections, evidence from destination and source countries respectively will illustrate the importance of health workforce mobility for access to health services.

## 4 The Perspective of Destination Countries

The contribution of health professional mobility to service delivery and access to care in destination countries depends on a series of factors:

- the relative weight of the foreign health professionals compared to the total health workforce;
- the specialized skills foreign health professionals bring with them to the destination system;
- the geographical location where foreign health professionals settle down;
- the role and duties foreign health professionals take on;
- the specific population needs which the foreign health professionals respond to.

While the factors are not clear-cut and do overlap to some extent, they are helpful to understand the different ways in which health professional mobility can match the need for extra capacity in the destination country. The dimensions will be looked below.

In countries where foreign health professionals make up a considerable share of the total health workforce they visibly contribute to maintaining service levels. This is the case in Belgium, Portugal, Spain, Austria, Norway, Canada and Sweden where foreign medical doctors represented 10–20 % of the workforce. In four countries (Switzerland, Slovenia, Ireland and the UK) this share reached between 22 and 37 % (Maier et al. 2011). Just as importantly, some countries rely on foreign health care professionals to replenish their workforce. Out of 17 European countries, the UK (42 %) and Belgium (25 %) saw the highest proportions of foreign inflows to the medical workforce in 2008 (ibid). Spain recognized 40 % more foreign degrees (5,383) in medicine than Spanish universities produced (3,841) (López-Valcárcel et al. 2011). In Finland, 43 % of newly licensed dentists in 2006–2008 were foreign-trained, with similar proportions in Austria. One in

three nurses entering the nursing workforce in Italy (2008) and one in five in Spain (2007) were foreign-trained or foreign-nationals (Maier et al. 2011). In other health systems, foreign health professionals are particularly numerous in certain specialties. In France, foreign medical doctors make up 3.5 % of the medical workforce but the proportion rises to 9.5 % for anesthetists for whom there is high demand (Delamaire and Schweyer 2011). These data clearly show the importance of health professional mobility for certain health systems; service delivery appears to be dependent on the workforce coming from abroad.

In many health systems, foreign health professionals fill not (only) a general need for increased capacity but (also) fill vacancies in under-served and under-supplied areas. Geographical maldistribution of health workforce is a problem across Europe, leading to the phenomenon called 'medical deserts' (Wismar et al. 2011; Delamaire and Schweyer 2011). Health professional mobility can provide a solution when foreign health professionals settle down in these areas. Germany is a notable example where inflows mainly from eastern European Member States to the sparsely populated and less affluent federal states in the former German Democratic Republic have tripled the number of foreign medical doctors between 2000 and 2008. In particular the German hospital sector has become dependent on the services provided by foreign medical doctors (Ognyanova and Busse 2011). In a peripheral region of the southern Netherlands, Maastricht university hospital employs some 1,050 nurses of which 40 % come from neighboring Belgium. Belgian nurses help alleviate recruitment problems in a region perceived as less attractive than other parts of the Netherlands but is within easy reach from Belgium.<sup>6</sup> In north-eastern Estonia, the small number of doctors and dentists arriving from Russia and Ukraine provide services to the Russian-speaking population and help reduce workforce shortages (Saar and Habicht 2011). In the UK, during the 2003 GP workforce crisis, unfilled posts remained vacant for months and existing GPs had to provide care to 1.5 million extra patients (Blitz 2005). In southeast London, facing a 10 % vacancy rate, 89 general practitioners were recruited mainly from France and Spain to fill some of the 103 open posts (Ballard et al. 2004). In France, non-EU medical doctors are instrumental in maintaining service levels and quality in underserved zones, mainly small cities and poor areas with socio-economic problems (Delamaire and Schweyer 2011).

Foreign health professionals taking up work which is less favored by the domestic workforce and/or which responds to an unmet need of the population is also visible in the tasks and duties performed. In France, many non-EU medical doctors are recruited as associate practitioners (so-called 'PAC' who work under the supervision of a senior doctor) and often take on heavier duties such as night shifts (ibid). Elsewhere, it is the need for elderly and home care services which foreign health workers respond to. In Italy, estimates suggest that between 500,000 to a million undocumented foreign care workers from countries including

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<sup>6</sup> Interviews with representative from nursing staff association (28 March 2012) and HR advisor (3 April 2012), Maastricht University Hospital.

Moldova, Ukraine, Romania and Peru look after the nation's aging population, particularly in the wealthier northern regions (Bertinato et al. 2011). In Germany (est. 100,000) and Austria (est. 40,000) undocumented care workers also provide services in elderly people's private homes and offer an alternative to nursing homes which families often cannot afford (Ognyanova and Busse 2011; Offermanns et al. 2011). In these cases, undocumented foreign health workforce responds to patient needs which are not met by the official health system.

Finally, it also recognized that foreign health professionals bring cultural and linguistic diversity to the health workforce which as a consequence better reflects the make-up of increasingly multi-cultural societies, as e.g. noted in Spain and the UK (López-Valcárcel et al. 2011; Young 2011). On the other hand, it is also recognized that destination systems may need to invest in acclimatising foreign health professionals to ensure their smooth integration into the system (Lupieri 2013).

## 5 The Perspective of Source Countries

Source countries tell the other side of the story. In the health professional mobility equation, what destination countries win source countries lose. These losses can be measured in terms of the number and share of health professional mobility leaving the country; the associated financial costs related to the education and training of health workforce; and the gaps in service delivery and access caused by emigration. Outflow data are by nature patchy because emigrating health professionals do not have to de-register when leaving a country. Despite important data limitations, figures from source countries clearly show that emigration is a non-negligible phenomenon: 9,000 Romanian doctors requested certificates to move to another EU Member State between 2007 and 2010 (Galan et al. 2011); around 2 % of doctors in Estonia and in Hungary have done so annually since 2004 (Saar and Habicht 2011; Eke et al. 2011). By 2008, 6.5 % of Polish doctors and dentists had received certificates to migrate (Kautsch and Czabanowska 2011). 2,650 Slovak nurses (8 % of nursing workforce) went to work in Austria in 2003–2008. It is estimated that around 100 Slovak health professionals leave Slovakia every month which only exacerbates the shortage of 2,000 medical doctors reported by the Slovak hospital association (Beňušová et al. 2011). For source countries, losing even 1 or 2 % of the workforce is not marginal; it accumulates over the years and may damage service delivery and access where shortages already exist (Glinos et al. 2011).

One needs to zoom in on the level of specialities and individual hospitals to understand how these trends translate into shortages which hamper access to care. In Romania, one of the largest hospitals in Bucharest reported that ca. 10 % of its nursing staff had been recorded as leaving the country to work abroad, and many other hospitals report similar problems. Moreover, the emigration of medical doctors disproportionately touches the north-east of the country which is the most

economically deprived region and where medical coverage is the lowest (Galan et al. 2011). In Lithuania, emigrating specialist doctors are often from disciplines with the highest number of vacancies such as gynecology and surgery (Padaiga et al. 2011). Similarly in Poland, emigration contributes to workforce shortages as more doctors from specialties with shortages apply for certification to work abroad: while on average 5.5 % of Polish practising medical doctors had made the administrative requests by late 2008, 19 % of doctors in anesthetics and intensive care and 13 % in emergency care had done so (Kautsch and Czabanowska 2011). In Hungary it is reported that the specialties with highest emigration intentions— anesthetics, intensive care, and general practice—are those most likely to create major bottlenecks in the delivery of health services. It is also noted that if emigration concerns specialties where total numbers are limited but the services crucial (such as pathology) it can seriously jeopardise access to care in a given locality (Eke et al. 2011). Another consequence of emigration is the larger workload and lower work morale among remaining staff which may negatively affect service delivery and access.

Important outflows of health professionals may put the sustainability of a health system at risk, in particular when combined with other workforce challenges such as shortages and attrition (i.e. health professionals leaving the public system or the health sector to work elsewhere). It should also be borne in mind that due to patchy outflow data, we only have a partial picture of the actual numbers of health professionals which source countries lose (Maier et al. 2011).

## 6 Increasingly Interdependent Countries

The data from destination and source countries show that health professional mobility is a widespread phenomenon which has direct as well as indirect consequences for patients' access to care. Yet the evidence becomes even more compelling when considered in the general health workforce context of shortages and demographic aging. In Wismar et al. (2011), 16 out of 17 European countries face current and/or forecasted workforce shortages either in all professions or in particular specialties (GPs, specialized nurses, anesthesiologist, pediatrician, psychiatrists, internists and general surgeons), whether nationwide or in particular regions or hospitals. And the trend is global. With the Affordable Care Act, an additional 32 million US citizens will be entitled to medical insurance (Wilson 2012). Projections suggest a shortfall of 130,600 doctors in the USA by 2025 and almost a million nurses by 2020 (Association of American Medical Colleges 2010). China is said to currently lack 5 million nurses (Yun et al. 2010). Almost one in two nurses in the UK is expected to retire within the next 10 years. According to European Commission estimates, the EU will lack 230,000 doctors and 590,000 nurses by 2020 (EC 2012). As populations age, so does the health care workforce reinforcing pressures on demand for and supply of care. In 14 out of 17 countries, aging of the health workforce is considered a challenge for the health

system. Several countries report difficulties in filling posts whether due to retirement, attrition, emigration or underproduction of health professionals (Wisnar et al. 2011).

In this context of local and international shortages, countries become increasingly interdependent. By drawing on a global pool of health workforce which is finite but increasingly mobile, countries compete for health professionals. Actions and policy measures taken in one country have repercussions in other.

For destination countries, the risk is to compromise self-sufficiency. Systems which face under-production of health professionals, wrong skill-mix, geographical maldistribution of health professionals and/or general health workforce shortages may easily become dependent on retaining foreign workforce or on attracting new foreign inflows into the domestic system. Yet reliance on foreign health workforce is not to be a sustainable solution. With EU and global competition for health workforce growing, systems become susceptible to changes in the direction and volumes of flows. Mobility patterns are hard to predict so to be reliant on them is no safe option (Glinos et al. 2011).

When a country fails to plan for and produce the health workforce it needs, someone else picks up the bill. For destination countries, international recruitment can present huge cost savings. It has been estimated that Ireland spent just under €7,000 per internationally recruited medical doctor; by comparison, Irish medical schools receive a state-subsidy of €50,000 per undergraduate medical student (Humphries et al. 2013; Cullen 2012; Irish Medical Organisation 2006). For source countries, outflows of health professionals constitute a major budget drain and lead to a set of problems: gaps in service provision; disruptions to health workforce planning; and a net financial loss considering what it costs to educate and train health professionals. Slovakia spends €59,000 to educate and train a specialist doctor (Beňušová et al. 2011). It is estimated that the losses for Serbia and Montenegro due to medical specialists leaving the country is between US\$ 9 and 12 billion (Jekic et al. 2011). Emigration is particularly costly for the country of origin when young health professionals migrate, as noted in Estonia and Hungary, because it hampers the replenishment of the workforce and the home country's return on investments.

## **7 Crisis and Competition: Is There a Role for Solidarity?**

How do health care workforce issues and professional mobility resonate in a context of economic austerity? According to recent data, many EU countries have reduced national health care spending (Mladovsky et al. 2012). In Greece, the 2011 health budget was cut by 1.4 billion EUR, with hospitals and salaries being the hardest hit (Kaitelidou and Kouli 2012). The Irish health sector witnessed a similar cut over the 2 year period 2010–2011 (Thomas and Burke 2012). Romania reduced public health care sector salaries by 25 % and froze all new public sector recruitments in 2010 (Galan et al. 2011). France, Ireland and Lithuania have also



reduced health care professionals' salaries. Data (2009 or 2010) from Romania, Hungary and Estonia show an increase in numbers of doctors and nurses leaving (Maier et al. 2011), and anecdotal evidence suggests an increase in Greek medical doctors emigrating e.g. to Germany.

If health professionals move to where salary levels and working conditions are best, how do poorer countries compete? At the international level, Member States of the World Health Organization signed in May 2011 a code on the ethical international recruitment of health professionals. Symbolically this was a huge achievement, but within the EU the logic of free mobility prevails. This leads to a situation where it may be 'unethical' for a destination country such as the UK to recruit from say India but not from Romania. A nurse in the UK can expect to earn around €2,500 per month while the average monthly income of nurses in Romania in 2007 was ca. €364 (Galan et al. 2011; Lupieri 2013). With up to tenfold salary differentials between Member States, it can be a huge challenge for poorer countries to compete. Existing salary differences may widen further—between Member States and between the public system and commercial sector within countries, encouraging health care professionals to leave the country or the public sector. Competition between countries may develop into a concrete concern in particular for medical specializations where there are widespread shortages. anesthesiologist are e.g. in high demand across Europe (shortages noted in France, Austria, Spain, Hungary and Poland) and general practitioners are scarce in some countries (shortages noted in Finland Slovakia, and parts of England) (Wismar et al. 2011).

This might be contributing to a widening asymmetry in Europe. The research carried out by Wismar et al. (2011) showed that most destination countries are in EU15: whereas all EU countries experience health workforce emigration, in EU15 the outflow of health professionals is to a large extent compensated by inflows. New evidence however suggests that in addition to this east-west asymmetry, mobility flows are changing as a result of the economic downturn. Countries which until recently had been net importers of foreign health professionals—such as Spain and Portugal—have seen outflows overtake inflows as a result of worsening employment and working conditions. In Spain, 948 medical doctors requested certification to work abroad in the first 6 months of 2012, compared to 650 requests in all of 2007 (Dussault and Buchan 2014 forthcoming; Lopez-Valcarcel et al. 2011). In Portugal, the number of nurses requesting similar documentation almost doubled. Between January and October 2012, the Portuguese Nursing Council received 3,202 requests compared to 1,724 for the entire 2011 (Dussault and Buchan 2014 forthcoming). On the other hand, the UK has seen a sudden marked increase in nurses from Portugal and Spain (Buchan et al. 2014). One of the effects of the crisis may be to reinforce the 'east to west' and 'south to north' direction of health professional mobility in the EU. Destination countries thus have two characteristics: they appear to be in the EU15 group, and to be those least hit by the economic crisis.

The crisis context also reinforces *the nexus between patient mobility and health professional mobility*. Two important factors tend to put a limit to patient mobility

in the EU: patients' overall preference to be treated in their home system by providers they are familiar with and close to their relatives mean that EU citizens generally are reluctant to travel for health care (Glinos et al. 2012). Second, legislation at national and EU levels determine the very specific circumstances under which patients have the right to receive health care abroad paid for by the home system following prior authorization (Regulation 883/2004)<sup>7</sup> or be reimbursed by the home system after obtaining health care abroad (Directive 2011/24/EU)<sup>8</sup>. This relatively strict legal framework does not generally encourage patient mobility. There is however one exception where patient motivations and legal entitlements combine to create a context prone to patient mobility. Earlier studies show that *availability* of care is one of the key drivers which makes patients seek treatment outside their home country, e.g. in the event of waiting times and waiting lists at home (Glinos et al. 2010). The Directive makes clear that EU patients are entitled to receive prior authorization from their home system “when [the specific] health care cannot be provided on its territory within a time limit which is medically justifiable” (Art. 8(5)). This means that countries which experience significant delays in the delivery of health services are at higher risk of seeing outflows of patients seeking treatment abroad. Even more importantly, however, is that *health professional mobility may trigger patient mobility*: if the emigration of health workforce leads to declining service delivery and to delays (e.g. in elective surgery), patients may use their EU entitlements to seek those treatments in another EU Member State with the home country paying for it. This places crisis-hit countries in a particularly vulnerable position—at the risk of health professionals, patients and health care funding leaving the system.

The question then is what consequences cross-border mobility may have for solidarity between EU countries. The stakes are high for both destination countries, which benefit from health professional mobility, and source countries, which bear the costs. While hypothetical at this moment, it seems that the current context of widening asymmetries, workforce shortages and aging has the potential of leading to a hierarchy of European systems where poorer systems face a vicious circle of budget cuts, health professionals leaving the country, and patients experiencing access constraints—whether in the form of lower service levels, delays, higher out-of-pocket expenditure, or being forced to seek health care abroad. With the effects of the economic downturn expected to last for some years to come, one way to address intra-EU solidarity would be for EU Member States to acknowledge the multiple disadvantages which crisis-hit source countries face and set up compensation mechanisms to alleviate their burden. Such measures would

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<sup>7</sup> Regulation (EC) No 883/2004 of the European Parliament and of the Council of 29 April 2004 on the coordination of social security systems, OJ 23.04. 2004, L166/1 (formerly Regulation EEC No 1408/71).

<sup>8</sup> Directive 2011/24/EU of the European Parliament and of the Council of 9 March 2011 on the application of patients' rights in cross-border health care. Official Journal of the European Union 2011; 54; 45–65. <http://eurlex.europa.eu/JOHtml.do?uri=OJ:L:2011:088:SOM:EN:HTML>

be in line with the spirit of the WHO code on ethical international recruitment, but be politically contentious and difficult to negotiate at EU level.

## 8 Conclusions

The current and forecasted shortages of health professionals, the aging of the health workforce and of the population, and the growing asymmetry between resource-rich and resource-strained EU Member States, and the significant effect health professional mobility can have on service delivery are all good reasons to place the mobility of health professionals firmly on research and policy agendas. The pressures and tensions European countries face will likely intensify as health care professionals increasingly move between EU Member States rather than between the EU and third countries (Glinos et al. 2011).

The notion of EU-wide solidarity is often mentioned when patient mobility advocates argue that all EU patients should be entitled to the same quality and range of health services. Yet the evidence presented in this chapter makes a clear case that if we worry about all EU citizens having access to adequate levels of health care, then a good place to start would be to acknowledge the importance of health professional mobility in providing health systems with sufficient and adequate workforce. In the absence of any compensation mechanism between ‘winning’ and ‘loosing’ countries, this would mean for destination countries to give up their reliance on foreign inflows and instead produce a sufficient health care workforce. For source countries this would mean taking measures to encourage their health care workforce to stay in the country (Glinos 2012). For all EU countries, the important role health professional mobility plays in health system performance calls for better monitoring of inflows and outflows to inform policy priorities and processes. As the vast majority of Europeans receive treatment in their home health system, the mobility of health care professionals may lead to much larger problems with access to health services than ever envisaged in patient mobility debates.

## References

- Association of American Medical Colleges. (2010). *The impact of health care reform on the future supply and demand for physicians updated projections through 2025*. Washington: AAMC Centre for Workforce Studies.
- Ballard, K. D., Robinson, S. I., & Laurence, P. B. (2004). Why do general practitioners from France choose to work in London practices? A qualitative study. *British Journal of General Practice*, 54(Oct), 747–752.
- Beňušová, K., et al. (2011). Regaining self-sufficiency: Slovakia and the challenges of health professionals leaving the country. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European*

- countries. *Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- Bertinato, L., Glinos, I. A., Boscolo, E., & Ciato, L. (2011). Oversupplying doctors but seeking carers: Italy's demographic challenges and health professional mobility. In M. Wismar et al. (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series No. 23*. European Observatory on Health Systems and Policies/ World Health Organization.
- Blitz, B. K. (2005). 'Brain circulation': The Spanish medical profession and international recruitment in the United Kingdom. *Journal of European Social Policy*, 15(4), 363–379.
- Buchan, J., May, F., & Dussault, G. (2014). Nursing workforce policy and the economic crisis: A global overview. *Journal of Nursing Scholarship*, 45(3), 298–307. doi:10.1111/jnu.12028, <http://onlinelibrary.wiley.com/doi/10.1111/jnu.12028/abstract>.
- Cullen, P. (2012). Nearly €2m spent on recruiting doctors in India and Pakistan. *The Irish Times*, 16 Feb.
- Delamaire, M. L., & Schweyer, F. X. (2011). Nationally moderate, locally significant: France and health professional mobility from far and near. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- Dussault, G., & Buchan, J. (2014 forthcoming). The economic crisis in the EU: impact on health workforce mobility. In J. Buchan, M. Wismar, I. A. Glinos, & J. Bremner (Eds.), *Health professional mobility in a changing Europe: New dynamics, mobile individuals and policy responses (working title). Observatory Studies Series*. Copenhagen: European Observatory on Health Systems and Policies.
- EC. (2012). *Commission staff working document on an action plan for the EU health workforce SWD (2012) 93 final*. Strasbourg. Retrieved April 18, 2012 from [http://ec.europa.eu/dgs/health\\_consumer/docs/swd\\_ap\\_eu\\_healthcare\\_workforce\\_en.pdf](http://ec.europa.eu/dgs/health_consumer/docs/swd_ap_eu_healthcare_workforce_en.pdf).
- Eke, E., Girasek, E., & Szocska, M. (2011). From melting pot to laboratory of change in central Europe: Hungary and health workforce migration. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- Galan, A., Olsavszky, V., & Vladescu, C. (2011). Emergent challenges of health professional emigration: Romania's accession to the EU. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- Glinos, I. A., Baeten, R., Helble, M., & Maarse, H. (2010). A typology of cross-border patient mobility. *Health and Place*, 16(6), 1145–1155. 2010 Nov. doi: 10.1016/j.healthplace.2010.08.001.
- Glinos, I. A., Wismar, M., Maier, C. B., Palm, W., & Figueras, J. (2011). Health professional mobility and health systems in Europe: conclusions from the case-studies. In M. Wismar et al. (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series No. 23*. Copenhagen: European Observatory on Health Systems and Policies/ World Health Organization.
- Glinos, I. A. (2012). Worrying about the wrong thing: patient mobility versus health professional mobility. *Journal of Health Services Research and Policy*, 17(4), 254–256. doi:10.1258/jhsrp.2012.012018.
- Glinos, I. A., Doering, N., & Maarse, H. (2012). traveling home for treatment and EU patients' rights to care abroad: results of a survey among German students at Maastricht University. *Health Policy* 2012, 105(1), 38–45. doi:10.1016/j.healthpol.2011.12.008.
- Humphries, N., Tyrrell, E., McAleese, S., Bidwell, P., Thomas, S., Normand, C., & Brugha, R. (2013 forthcoming). *Brain gain, waste and drain-a qualitative study of non-EU migrant doctors in Ireland*. Human Resources for Health.

- Irish Medical Organisation. (2006). IMO Position Paper on Medical Schools. 2006, Irish Medical Organisation, Dublin.
- Jekic, I. et al. (2011). Geopolitics, economic downturn and oversupply of medical doctors: serbia's emigrating health professionals. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- Kaitelidou, D., & Kouli, E. (2012). Greece: The health system in a time of crisis. *Eurohealth (incorporating Eurohealth Observer)*, 18(1), 12–14.
- Kautsch, M., & Czabanowska, K. (2011). When the grass gets greener at home: Poland's changing incentives for health professional mobility. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- López-Valcárcel, B. G., Barber Perez, P., & Quintana, C. D. D. (2011). Opportunities in an expanding health service: Spain between Latin America and Europe. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- Lupieri, S. (2013). Where have Europe's nurses gone? CNN Retrieved May 21 2013, from [http://edition.cnn.com/2013/05/21/health/europe-nursing-shortage/index.html?hpt=hp\\_c3](http://edition.cnn.com/2013/05/21/health/europe-nursing-shortage/index.html?hpt=hp_c3).
- Maier, C. B., Glinos, I. A., Wismar, M., Bremner, J., Dussault, G., & Figueras, J. (2011). Cross-country analysis of health professional mobility in Europe: the results. In Wismar et al. (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series No. 23*. Copenhagen: European Observatory on Health Systems and Policies/ World Health Organization.
- Mladovsky, P., Srivastava, D., Cylus, J., Karanikolos, M., Evetovits, T., Thomson, S., & McKee, M. (2012). Health policy responses to the financial crisis in Europe. *Policy summary 5*. Copenhagen: World Health Organization on behalf of the European Observatory on Health Systems and Policies.
- Offermanns, G., Malle, E.M., & Jusic, M. (2011). Mobility, language and neighbours: Austria as source and destination country. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- OECD. (2012). *Health at a glance: Europe 2012*. Paris: OECD Publishing. Retrieved from doi:10.1787/9789264183896-en.
- Ognyanova, D., & Busse, R. (2011). A destination and a source: Germany manages regional health workforce disparities with foreign medical doctors. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- Padaiga, Z., Pukas, M., & Starkiene, L. (2011). Awareness, planning and retention: Lithuania's approach to managing health professional mobility. In M. Wismar et al (Eds.) *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series No. 23*. European Observatory on Health Systems and Policies/ World Health Organization.
- Palm, W., & Glinos, I. A. (2010). Enabling patient mobility in the EU: Between free movement and coordination. In E. Mossialos, G. Permanand, R. Baeten, & T. Hervey (Eds.), *Health systems governance in Europe: The role of EU law and policy* (pp. 509–560). Cambridge: Cambridge University Press.
- Saar, P., & Habicht, J. (2011). Migration and attrition: Estonia's health sector and cross-border mobility to its northern neighbour. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European*

- countries. *Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- Thomas, S., & Burke, S. (2012). Coping with austerity in the Irish health system. *Eurohealth incorporating Eurohealth Observer*, 18(1), 7–9.
- Wilson, J. (2012). Your health care is covered, but who's going to treat you? *CNN* Retrieved from June 29, 2012, from <http://edition.cnn.com/2012/06/29/health/doctor-shortage-affordable-care-act/index.html>.
- Wismar, M., Maier, C. B., Glinos, I. A., Dussault, G., & Figueras, J. (Eds.). (2011). *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.
- Yun, H., Jie, S., & Anli, J. (2010). Nursing shortage in China: State, causes, and strategy. *Nursing Outlook*, 58, 122–128.
- Young, R. (2011). A major destination country: The United Kingdom and its changing recruitment policies. In M. Wismar, C. B. Maier, I. A. Glinos, G. Dussault, & J. Figueras (Eds.), *Health professional mobility and health systems: Evidence from 17 European countries. Observatory Studies Series 23*. Copenhagen: European Observatory on Health Systems and Policies.