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POLICY BRIEF

How can the migration of health service professionals be managed so as to reduce any negative effects on supply?

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Keywords:

HEALTH PERSONNEL - trends

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This policy brief, written for the WHO European Ministerial Conference on Health Systems, 25–27 June 2008, Tallinn, Estonia, is one of the first in what will be a new series to meet the needs of policy-makers and health system managers.

The aim is to develop key messages to support evidence-informed policy-making, and the editors will continue to strengthen the series by working with authors to improve the consideration given to policy options and implementation.

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Key messages

- The international migration of health professionals has been a growing feature of the global health agenda since the late 1990s. In Europe, the accession of more countries to the European Union (EU) since 2004 has increased the scope for mobility among health workers and raised additional issues within the European context.
 - The dynamics of international mobility, migration and recruitment are complex, including individual motives and the different approaches of governments to managing, facilitating or attempting to limit the outflow or inflow of health workers.
 - Health worker migration can have positive and negative aspects. It can be a solution to staff shortages in some countries, can assist countries that have an oversupply of staff, and can be a means by which individual health workers can improve their opportunities and standard of living. Nevertheless, it can also create (additional) shortages of health workers in countries that are already understaffed and undermine the quality of and access to health care. It can also affect the morale of the health workforce.
 - There are various types of migration, which may have different effects and require different types of policy attention, and which vary according to whether a country is a source of or a destination for health workers.
 - Migration of health workers is part of the broader dynamic of change and mobility within health care labour markets and in terms of policy should not be addressed in isolation.
 - To meet the policy challenges and to manage migration, three areas of action are required:
 - improving the available data on migratory flows of health professionals so that monitoring of trends in flows can be more effective;
 - paying more detailed attention to options to manage the processes of migration in order to reduce any negative effects on supply of health professionals; and
 - in all affected countries, ensuring that human resource policies, planning and practice in the health sector are effective and thus allow supply to be better maintained.
-

Executive summary

Migration of skilled workers is generally on the increase. In the health sector, physicians, nurses and other health workers have always taken the opportunity to migrate in pursuit of new opportunities and better career prospects. In recent years, however, the level of this migration has grown significantly.

Source countries that lose skilled health staff through out-migration may find that their health systems suffer from, for example, staff shortages, lower morale among the remaining health care staff, and a reduced quality or quantity of health service provision. Nevertheless, the migration of health workers can also have positive aspects, such as assisting countries that have an oversupply of staff and offering a solution to a shortage of staff in destination countries. It can also allow individual health workers to improve their skills, career opportunities and standard of living.

Migration among health workers is part of the broader dynamic of change and mobility in health care labour markets, and in policy terms should therefore not be addressed in isolation. Moreover, the dynamics of international mobility, migration and recruitment are complex, covering: individuals' rights and choices, health workers' motives and attitudes, governments' approaches to managing, facilitating or attempting to limit the outflow or inflow of health workers, and recruitment agencies' role as intermediaries.

In the WHO European Region, the accession of more countries to the European Union (EU) in 2004 and 2007 increased the scope for mobility of health professionals. Some countries, particularly those in the eastern part of the Region, are concerned about the out-migration of health workers as a result of accession.

This brief considers the policy implications in Europe of the international migration of health workers and addresses the question of how the migration of health service professionals can be managed in ways that reduce any negative effects on supply. It focuses on three related aspects:

- monitoring migration (understanding trends and flows);
- motives for migration (why health professionals move and the implications for policy formulation); and
- managing migration (what the aims are, and what is feasible in relation to the appropriate management of migration).

Monitoring

Any examination of health worker migration must relate the numbers leaving or entering the country to the overall number leaving the health workforce. For

example, many health workers may actually remain in the country but will have left the health sector. There are also different types of migration requiring consideration. Thus there are two important measures of migration that policy-makers should consider: the stock of migrant workers in the country as a percentage of the total stock available to work or practise (this indicates the extent to which the country is reliant on migrant health workers); and the flow of workers into and/or out of the country (critical in assessing how significant outflow might be). Measuring flow can also provide insight into the current migratory connections between countries.

Overall, the available data suggest that migratory flows of health professionals have increased, in terms of flows both into Europe from other regions and from the EU accession countries into western Europe and elsewhere. To date, however, the flow from accession to longer-standing EU Member States has not occurred at the rate predicted before accession.

Motives

Individuals are motivated to move for different reasons. Migration is not just about a one-way flow from source to destination. Health workers may leave one country to work in a second, and then either return home or move onto a third country, or both. They may even live in one country and regularly cross a national border to work in another. Policy-makers must develop an understanding of the drivers of the migration of individuals and occupations if they are to develop policies that effectively manage the supply flows.

Management

To assist in mitigating any negative impact on the supply of health workers, policy-makers should examine three types of measures.

Measures to improve monitoring of health worker migration

Policy-makers should ensure that the two main indicators required for assessing the relative importance of migration and international recruitment are available: trends in the inflow of workers into the country from other source countries (and/or outflow to other countries) and the actual number of international health workers in the country at any point in time.

Measures to direct migratory flows

Several policy interventions can be used actively to direct the inflow or outflow of international health workers, including bilateral agreements and codes of conduct, but the current absence of research and evaluation in this area is a major policy constraint. A priority for policy-makers must therefore be to

contribute to improving the evidence base by sharing experiences and commissioning evaluations of their effects.

Measures to improve human resource policy and practice

The migration of health professionals does not occur in isolation from other dynamics within health care labour markets. Migration may be a symptom of deeper problems in health systems, such as the challenges of retaining health professionals and improving workforce planning to reduce over- or undersupply. Attention must therefore be paid to more general human resource practice in health systems, and specifically to fair and equitable treatment for all health professionals (be they home-trained or international) and efficient deployment of their skills. This requires collaboration among different government departments and with other stakeholders. Improvements in this direction will assist in reducing any negative effect that migration would otherwise have on health system performance.

Policy brief

The policy issue: managing the impact of health worker migration

The international recruitment and migration of health workers has been a growing feature of the global health agenda since the late 1990s (1–6). Physicians, nurses and other health workers have always taken the opportunity to move across national borders in pursuit of new opportunities and better career prospects (7). While the migration of skilled workers is increasing across a range of sectors (8), the significant growth of health professionals migrating in recent years raises a particular set of policy issues among countries and has become an area of particular international attention.

This policy brief presents an overview of the policy implications of the international migration of health workers in the WHO European Region. Drawing from a literature review of published reports and grey literature, and from available data sets, it focuses on international migration (the movement of health workers across national borders). From a European perspective, this means migration within Europe, between European countries and into and out of Europe from other parts of the world. The latter has been of particular significance to some European countries that retain close post-colonial links with countries in Africa, Asia and South America. It is important to note that the internal migration of health workers (i.e. movement within countries) is also a major policy factor for some countries – often compounding existing problems of geographical maldistribution – but is not examined in this brief.

The impact of health professionals' migration on health systems' performance has become an important feature of international health policy debate in the last few years, both within Europe and worldwide. The potentially negative impact of the out-migration of health workers from some developing countries was highlighted in *The world health report 2006* (9) and debated at the World Health Assembly (10). Within Europe, it has received attention within the European Union (EU) and in the Council of Europe. It has been identified as a critical human resource for health (HRH) issue in the WHO European Region and was highlighted at the fifty-seventh session of the WHO Regional Committee for Europe in September 2007 (6).

Flows of health workers across national boundaries in Europe and beyond create a series of policy questions for national governments and international agencies, summarized in Box 1.

The international migration of health workers is often treated from the simple perspective of a one-way linear brain drain, whereby the health systems in the countries that lose skilled HRH staff through out-migration suffer staff shortages, lower morale among the staff that remain, and lower quality, quantity and

Box 1. Health worker migration: policy questions and the necessary evidence base**Source countries***Policy*

- Should outflow be supported or encouraged (to stimulate remittance income or to end oversupply)?
- Should outflow be constrained or reduced (to reduce brain drain)? If so, how, and what is effective and ethical?
- Should recruitment agencies be regulated?

Evidence base

- What types and numbers of workers are leaving?
- What are the destination countries for outflow?
- How much outflow is permanent or temporary (short or long term)?
- How much outflow is going to health-sector-related employment and education in other countries, and what proportion is going to non-health-related destinations?
- What is the size of the outflow to other countries compared with outflow to other sectors within the country?
- What is the impact of outflow?
- Why are health workers leaving?
- How should flows be monitored?

Destination countries*Policy*

- Is inflow sustainable?
- Is inflow a cost-effective way of solving skills shortages?
- Is inflow ethically justifiable?
- Should recruitment agencies be regulated?

Evidence base

- What are the source countries for inflow?
- How much inflow is permanent or temporary?
- How much inflow is going to health-sector-related employment and education in the country? What proportion is going to non-health-related destinations?
- Is inflow effectively managed?
- Why are health workers coming?
- How should flows be monitored?

International organizations

- How should international flows of health workers be monitored?
- Should the organizations intervene in the process (e.g. develop an ethical framework, support government-to-government contracts, support introduction of regulatory compliance)?

Source: Buchan (11).

access to services (4, 12). The dynamics of international mobility, migration and recruitment are complex, however. They cover individuals' rights and choice (13), health workers' motives and attitudes, governments' different approaches to managing, facilitating or attempting to limit outflow or inflow of health workers, and recruitment agencies' role as intermediaries in the process (14).

Migration may be temporary or permanent, voluntary or forced, or stimulated by various factors in the destination and/or source countries (2). Different types of migration flow may have different drivers, effects and policy implications, but the available data do not easily allow for differentiating between types of flow. There is little international standardization of migration-related documentation, making it complicated to compare levels of general migration among countries (15). There is also often a lack of data specific to health professionals (16). It is therefore not possible to develop a detailed Region-wide, far less international picture of the trends in flows of doctors, nurses and other health workers, or to assess the balance between temporary and permanent migrants with the available data.

In Europe, another factor is the accession of more Member States to the EU in 2004 and 2007, thus increasing the mobility of doctors, nurses and other staff. Some countries, particularly those in eastern part of the Region, are concerned either with the out-migration of health workers as a result of their accession or that out-migration may increase as they are now part of a much larger free market for mobile health professionals. A report completed before the 2004 accession revealed that in 2000 there were 13 million non-nationals living in the 15 EU Member States, half of them being nationals of other EU countries. Moreover, the net inflow of migrants to the EU in 2000 was 680 000 or 2.2 per 1000 population. The income gap between acceding countries in central and eastern Europe and existing Member States was estimated at 60%, which was much higher than for the previous enlargement of the EU (17).

The EU has highlighted its concerns over the impact of health worker migration on health systems in the developing world, where the brain drain is of particular significance (18). There is also EU-wide influence on the mobility of health professionals within the Bologna process, begun in 1999, which aims to establish a European Higher Education Area by 2010 to facilitate recognition of qualifications within Europe (4). Most recently, the EU has brought up the possibility of developing an EU-wide card system similar to the United States' green card, providing a single point of entry to the EU-wide labour market for highly skilled non-EU workers, reportedly to include doctors and nurses. The scheme has been criticized on several fronts, however, and its ratification by all 27 Member States is therefore unlikely in the short term (19).

The WHO Regional Committee for Europe, at its fifty-seventh session in Belgrade

in September 2007, gave consideration to health workforce issues, including migration, and approved resolution EUR/RC57/R1 (20) urging Member States to:

- improve and expand the information and knowledge base on the health workforce;
- develop, embed and mainstream policies concerning human resources for health as a component of health systems development;
- assess the trends in and impact of health workforce migration; and
- orient, where appropriate, workforce planning towards achieving health for all.

Some of the issues related to health worker migration within Europe are illustrated in Box 2, which provides selected examples of the policy challenges currently facing governments.

The migration of health workers can have positive as well as negative aspects. It can be a solution to staff shortages in some countries, and can assist source countries that have an oversupply of staff. It can also raise the potential for remittance income being returned to source countries and enable individual health workers to improve their skills, career opportunities and standard of living. International recruitment of health workers has alleviated the shortage of skilled health professionals in some countries. It offers a short-term solution, which can be attractive to policy-makers, given that it can take 3–5 years to train

Box 2. Examples of policy challenges in the European Region

In Croatia, research on the attitudes of final-year medical students found that 76% would consider emigrating if they could not pursue their desired specialty in Croatia. The preferred destination was the EU and the most frequent reason cited for emigration was a higher salary.

In the Czech Republic, there are no available statistics for monitoring the specific numbers of migrating health care workers.

Many Romanian nurses currently work abroad on temporary contracts. It is not clear if they intend to return to Romania when their contracts end, but the skills and knowledge they gain while working abroad could benefit the Romanian health system.

In Serbia, if the trend towards unemployed doctors continues, mechanisms at the national level are required for registering both professionals going abroad and migrating health care workers in general.

Source: Wiskow (21).

a nurse and 15–20 years to train an experienced senior physician. Recruiting from other countries can deliver these staff much more quickly, and moreover the training costs have been met by somebody else. This active recruitment of nurses, doctors and other workers is in addition to any natural migration flows.

The remainder of this brief addresses the question of how the migration of health service professionals can be managed in ways that reduce any negative effects on supply. It focuses mainly on three related aspects: measuring migration (understanding trends and stocks/flows), motives for migration (why health professionals move, and the implications for policy formulation) and managing migration (what is desired and what is required and appropriate if migration is to be managed).

Understanding the requirements of policy responses

Measuring migration

Any examination of migration of health workers should be based on an understanding of the magnitude of the issue: i.e. how many are leaving (or entering) the country relative to the overall number leaving (or joining) the health workforce. For example, many health workers who leave the health sector may actually remain in the country. The health sector usually has dynamic labour markets, with workers moving in and out, as well as between organizations within it. Any metrics being used to measure trends in health labour markets must allow this dynamism to be captured (22–24).

Those joining the health workforce in a country may be migrants from other countries, but there will also be flows into the workforce from training, other types of employment, etc. Similarly, some of those leaving the health sector workforce will be migrating, but others will be retiring, moving to employment in non-health sectors, etc. Figure 1 presents a simple illustration of the health sector as a single system; more complex models with different boxes for each organization within the sector can be developed.

Fig. 1. The stock-flow model



Source: Buchan & Seccombe (25).

Out-migration may be the most obvious aspect of outflow, but it will not necessarily be the largest flow of workers from the health sector. Other outflows, such as retirement or moves within the country may be more significant. Policy-makers must consider the migration of health workers within the broader context of health workforce dynamics (14). The first consideration, therefore, must be to be clear about the relative importance of in-migration and/or out-migration. This can be achieved by developing an assessment of the impact of migration to the total number (stock) of workers in the system, and by estimating the size of the migratory flow relative to other flows.

It is also important to note that migration is the link between national labour markets, and these labour markets may have very different levels of current stock. Data on the overall size and density of the stock of health workers in different countries in the Region reveal significant variations. WHO has recently estimated that there are 16.6 million health workers in the European Region, an average of 18.9 per 1000 population. This accounts for about 10% of the working population (26). WHO has also published more detailed estimates, using recent data showing marked variations in the number of health workers per 100 000 population. The density of health workers tends to be highest in EU countries (Table 1). Countries with lower densities are the most likely to be vulnerable to any negative impact of out-migration.

Table 1. Numbers of health workers per 100 000 population, 2002

Country grouping	Physicians	Nurses	Midwives	Pharmacists
WHO European Region	351.22	669.02	45.07	50.93
European Union	343.56	708.26	35.95	77.54
Central Asian republics	293.14	767.68	66.90	16.38
Commonwealth of Independent States	373.55	794.18	54.15	18.44

Source: WHO Regional Office for Europe (26).

A report for the International Labour Organization noted that, between 1995 and 2000, health sector employment generally increased in western European economies, with the increase in transition economies being only marginal at best; many actually reported a decrease (21). Recent reports for the WHO Regional Office for Europe, however, project a shortage of qualified health workers in the years ahead, and not simply because of migration. For instance, countries such as Denmark, France, Iceland, Norway and Sweden are witnessing an ageing of the nursing workforce, the average age of employed nurses being 41–45 years (26).

Stocks and flows of migrant health workers

As shown in Fig. 1, there are two important measures of migration that policy-makers should consider:

- the stock of migrant workers in the country as a percentage of the total stock available to work or practise, which gives an indication of the extent to which the country is reliant or dependent on migrant health workers; and
- the flow of workers into and/or out of the country, which is a measure of the dynamism of the process and is critical in assessing how significant a factor the outflow of health workers may be for source countries, and can provide insight into the current migratory connections between countries.

Policy-makers must be able to compare the size of the outflow of health workers to other countries with the size of flows between sectors and regions within the country. Only then can they assess whether migration out of the country is a significant problem (14).

The four main sources of data on stocks and flows are (a) population censuses, (b) workforce surveys (which can assist in determining stock), (c) professional registration, certification and verification processes, and (d) work permit and emigration data (which can assist in determining inflow or outflow). No European country can provide accurate, complete and up-to-date information on all international stocks and flows of health professionals. They also employ different definitions and terminology, such as “foreign born”, “foreign trained” and “country of origin”. There are limitations in using any of these four sources, making it very difficult to compare migration levels and flows across countries (3, 16). For instance, the recent study of health worker migration in four countries featured in Box 2 (21) noted that:

- in Croatia, no data on international health worker migration were available from official statistical sources or for monitoring internal movements;

- in the Czech Republic, there were no statistical resources to monitor the number of migrating health workers, although some information on intended emigration could be obtained through verification procedures within the Medical Chamber and professional associations;
- in Romania, data on health worker migration were not publicly available and the information that could be obtained was “fragmented, scarce and of poor quality”; and
- in Serbia, information on health worker migration could be obtained from census data, which suggested that nurse migration tends to be permanent (with the majority being abroad for more than 10 years) while physician migration showed more mixed trends.

Another limitation in the available information is that it is virtually impossible to track outflow where the professional does not take up a similar position in the destination country. For example, a Polish nurse who leaves Poland but takes up a post as a care assistant in the United Kingdom will not be recorded as part of the flow in the professional registration/verification data (14). In addition, if one focuses only on overall numbers in each health profession or occupation, one may miss the policy implications of an outflow that concerns only some specialties of a health profession, such as anaesthetists or intensive care nurses. Data limitations make it very difficult to assess, with any degree of accuracy, flows at this level of detail.

In terms of stock, the Organisation for Economic Co-operation and Development (OECD) reports that the number of foreign-trained doctors in some western European countries increased considerably over the last 30 years. Between 1970 and 2005, for example, the stock of such professionals rose from 1% to 6% of the total in France and the Netherlands, from 3% to 11% in Denmark, from 5% to 16.1% in Sweden, and from 26% to 33% in the United Kingdom (4). OECD has collected the most recently available data, which give some estimates of the percentage (stock) of “foreign-born” nurses and doctors working in OECD countries (Table 2).¹

Different European OECD countries show marked variations in the level of stock of foreign-born nurses and physicians. For example, Finland reports only 0.8% of its working nurses to be foreign-born, in contrast to 14–15% in Austria, Ireland and the United Kingdom. Only 4% of doctors in Finland and 7.5% in Spain are reported to be foreign-born, compared to more than a third in Ireland

¹ The definition used in these estimates is country of birth, which may be different from country of training. The data are from different years. All data in this section are from Dumont & Zurn (4) unless otherwise stated.

Table 2. Estimates of foreign-born practising health professionals, selected European OECD member countries, around 2000

Country of residence	Foreign-born nurses		Foreign-born doctors	
	No.	%	No.	%
Austria	8 217	14.5	4 400	14.6
Finland	470	0.8	575	4.0
France	23 308	5.5	33 879	16.9
Germany	74 990	10.4	28 494	11.1
Ireland	6 204	14.3	2 895	35.3
Norway	4 281	6.1	2 761	16.6
Spain	5 638	3.4	9 433	7.5
United Kingdom	81 623	15.2	49 780	33.7

and the United Kingdom. While the percentage of foreign-born nurses in OECD countries tends to follow the pattern set by that of all highly skilled occupations, the percentage of doctors tends to be much higher. The share of foreign-born pharmacists tends to be lower than for other groups of health professionals. OECD also reports on expatriation rates: the percentage of the total stock of nurses and doctors from other countries working in OECD countries (Table 3).

As Table 3 shows, the expatriation rates from countries in other regions, in terms of the stock working in OECD countries, vary significantly. The rate can be markedly higher in some countries, such as Bangladesh, that have a relatively small overall stock of nurses or doctors. Other countries report a high overall stock, so that even a large numerical outflow translates to a relatively low percentage of overall stock that has left the country. For example, more than 20 000 nurses from India are reported to be working in OECD countries, but this represents only 2.6% of the total number of nurses in India.

Table 3. Estimates of expatriation rates of doctors and nurses from selected European and African/Asian countries, around 2000

Country	Nurses working in OECD countries		Doctors working in OECD countries	
	No.	Expatriation rate (%)	No.	Expatriation rate (%)
Albania	415	3.5	271	6.2
Bulgaria	789	2.6	1856	6.2
Cyprus	706	19.1	627	25.2
Hungary	2117	2.4	2538	7.2
Poland	9153	4.6	5821	5.8
Romania	4440	4.9	5182	10.9
Bangladesh	651	3.1	2127	5.2
Cameroon	1338	4.9	572	15.5
Congo	452	12.3	539	41.6

Note. Complete data are not available on many of the countries emanating from the dissolution of the former USSR.

OECD notes specific links between countries and regions in terms of flows of health workers. For example, outflow from Latin America is mainly to Spain and the United States, while that from North Africa is mainly to France. Overall, it is estimated that outflow rates to OECD countries have been higher from African and Caribbean countries, notably African countries that have seen major conflicts in the last decade (4,27).

In terms of the impact of flows, it is suggested that, between 1970 and 2005, the number of foreign-trained doctors increased rapidly in most OECD countries (except Canada) and, as a result, the share of foreign-trained staff in

the medical workforce increased dramatically. The report concludes that these long-term trends are to some degree due to the recent increase in migration flows (4).

Outflow from accession states

As noted above, the impact of EU accession on migratory flows of health workers is difficult to assess accurately because of data limitations. Nevertheless, there appears to be some evidence that flows out of some of the 10 states that acceded to the EU in 2004 have not been as high as had been anticipated by policy-makers at the time of accession. For example, a WHO report published in 2006 and based on country case studies noted that, while there were some indications of increased out-migration of health professionals from Estonia, Lithuania and Poland, the numbers were not as large as had been anticipated, perhaps because surveys at the time had overestimated the intent of many health professionals actually to leave. The authors cautioned, however, that these countries had joined the EU less than two years before and that all three might expect an increase in outflow (14). Reports on other accession and eastern European countries reached similar conclusions (4,21,28). Box 3 summarizes some of the key findings on EU accession and migration of health workers.

Box 3. Examples of the impact of EU accession and enlargement

In the United Kingdom, between May 2004 and December 2006, 530 hospital doctors, 340 dental practitioners, 950 nurses (including 300 dental nurses) and 410 nursing auxiliaries and assistants were registered in the Worker Registration Scheme as coming from the new EU Member States.

In Ireland, the number of EU8 nationals employed in the health sector doubled between September 2004 and 2005, from 700 to about 1300.

In Sweden, the number of authorizations granted to EU doctors rose from 230 in 2003 to 740 in 2004.

In Poland, between May 2004 and June 2006, more than 5000 certificates were issued to doctors (4.3% of the active workforce) and 2800 to nurses (1.2%). Most of the increase in the outflows to EU countries was short term.

In Croatia, the Czech Republic, Romania and Serbia, "in contrast to the fears of mass migration in the context of EU enlargement" the mobility of the health workforce appeared to be low.

Sources: Dumont & Zurn (4), Wiskow (21).

Motives for migration

If they are to develop policies that will meet the challenges of managing the supply flows, policy-makers must understand the drivers in health worker migration (12, 14, 29, 30). These drivers are often characterized as push and pull factors. Table 4 summarizes some of the possible push and pull factors related to health workers. To a certain extent, these factors present a mirror image – on the issues of relative pay, career prospects, working conditions and environment – of the source and destination countries. Where the relative gap (or perceived gap) is significant, the pull of the destination country will be felt.

Table 4. Main push and pull factors in the migration and international recruitment of health workers

Push factors	Pull factors
Low pay (absolute and/or relative)	Higher pay Opportunities for remittances
Poor working conditions	Better working conditions
Lack of resources to work effectively	Better resourced health systems
Limited career opportunities	Career opportunities
Limited educational opportunities	Provision of post-basic education
Impact of HIV/AIDS	Political stability
Unstable or dangerous work environment	Travel opportunities
Economic instability	Opportunities for aid work

In general, level of income plays an important role in overall life satisfaction and has been identified as a key driver in migration (31). Indeed, research on wage differentials between health professionals in developed and developing countries reveals a significant gap that is not easily bridged (32). Moreover, the “satisfaction gap” between the accession countries and the 15 established EU Member States was particularly marked in relation to the financial and

employment situations, the health care system and personal safety; individuals in the accession countries had markedly lower levels of satisfaction in these areas (33).

Nevertheless, other factors may act as significant push factors in specific countries at specific times, such as concerns about personal security in areas of conflict, and economic instability. Other pull factors, such as the opportunity to travel or to assist in aid work, will be a further consideration for some individuals. Thus, a range of factors will affect individual decision-making. For example, a study in the Netherlands found that, for the 1500 nurses who had arrived there from other EU and accession countries, personal reasons (including marriage) were the most important (34). Meanwhile, research on internationally recruited nurses in the United Kingdom (specifically in London) showed that professional development and education opportunities for their children were among the main motives for moving (35).

Individuals are motivated to move for different reasons, and the mix of types of migrant health worker may also be different in different countries and at different times. Migration is not just about a one-way flow from source to destination. Health workers may leave one country to work in a second, and then either return to their home country or move on to a third. They may even live in one country and regularly cross a national border to work in another. Improvements in travel and communication, combined with availability of employment, can encourage this circulation. For example, Australia has actively recruited Filipino nurses working in Ireland (36).

There are also issues of professional and cultural adaptation to be considered. Doctors and nurses moving from one country to another may speak the language and have the recognized qualifications, but it is still likely that there will be a period of adaptation to the specific clinical processes and procedures and broader organizational culture in the destination country. This issue is currently under-researched (37–39). Other issues specific to the health sector relate to the regulation of health professions at national level. Different countries have different requirements in respect of qualifications, standards and language competence for a health professional to be able to practise in the country. Some countries, such as those within the EU, have agreed to recognize each other's qualifications, which can ease cross-border movement.

More general factors (and not specific to health professionals), such as geographical proximity, shared language and customs and a common educational curriculum, may affect the choice of destination country (Box 4). Post-colonial ties (often where source countries continue to share similar educational curricula and language) may also be a factor for some EU countries, for example Portugal and the United Kingdom.

Box 4. Factors that determine and maintain migration linkages

- Shared language
- Shared or similar culture
- Shared or similar educational curriculum
- Mutual recognition of or similar qualifications
- Geographical proximity, contiguous boundary or ease of travel
- Pre-existence of a migrant community

Managing migration*Source countries*

Policy-makers in European countries that are experiencing a net outflow of health workers need to be able to assess why this is happening and evaluate what effect it is having on the provision of health care in the country. They must be able to assess the relative loss of staff due to outflows to other countries compared with internal flows, such as health professionals and other workers leaving the public sector to work in the private sector or leaving the profession to take up other forms of employment. In some cases, international outflow may be very visible but may still represent only a relatively small numerical loss compared with internal flows of health workers leaving the public sector for other sources of employment.

Unplanned or unmanaged outflow of health professionals may damage the health system, undermine planning projections and erode the current and future skills base in the country. If policy-makers determine that out-migration is having such impacts, they must decide how to mitigate the negative effects on supply of health professionals and other workers. They will have to assess the costs and benefits of addressing issues such as low relative pay and career prospects, poor working conditions and high workloads, and respond to any concerns about job security, limited educational opportunities and personal safety. In some cases, they may be able to secure support from international organizations or destination country governments to improve working conditions, employment prospects or career and educational opportunities (30). Some of these policy responses may have significant cost implications but they do require consideration, as is being undertaken in the Baltic countries, where salaries and working conditions were examined and adjusted at the time of accession to the EU (14).

As noted earlier, there is also an alternative scenario whereby policy-makers encourage out-migration, either to reduce an oversupply of specific types of health professional or to encourage some workers to acquire additional skills or qualifications before then returning. This has been most prominent as a policy in India and the Philippines (40) but there are also some limited examples in Europe. Examples of this are the bilateral agreement between Spain and the United Kingdom, whereby Spanish nurses can work in the United Kingdom for an agreed period of time (39), and a similar agreement at provincial level between Romania and Italy for the movement of nurses (41).

Destination countries

Destination countries, in the sense that inflow of health professionals is markedly higher than outflow, also face a number of challenges. In the main, these mirror those of source countries. The ability to monitor trends in inflow (in terms of numbers and sources) is critical if the country is to develop a general picture of the HRH situation and specifically its impact on the health system, and to be able to integrate this information into its planning process. Such data will, for instance, help to make clear how much the country relies on health professionals recruited from other countries to solve its skills shortages. Equally important is an understanding of why these shortages are occurring.

Destination countries that rely on active international recruitment of health professionals have to be able to assess the relative contribution of this activity compared with other key interventions (such as home-based recruitment, improved retention, and return to work of non-practising health professionals) in order to identify the most effective balance of interventions. A recent policy document from the Directorate of Health and Social Affairs in Norway highlights the scope for a destination country to examine its overall workforce planning and policy framework in order to shift towards a position of greater self-sufficiency, and therefore to a situation whereby it is not making an undue impact on health systems in developing countries (30). The key to such an approach is to achieve effective interdepartmental agreement and collaboration so that finance, regulatory, overseas aid, health, and immigration authorities, among others, work together in an agreed overall policy direction.

Destination countries must also ensure that the inflow of health workers is managed and facilitated so that it makes an effective contribution to the health system and provides equal treatment and opportunities for international health professionals. Policy responses to facilitate effective recruitment have included: “fast tracking” of work permit applications; developing coordinated, multi-employer approaches to recruitment to achieve economies of scale in the recruitment process; developing multi-agency approaches to coordinated placement of health workers when they arrive in the destination country; and

providing initial periods of supervised practice or adaptation as well as language training, cultural orientation and social support to ensure that the newly arrived workers can assimilate effectively (14). Another related challenge may be that of trying to channel international recruits to the geographical or specialty areas that most require additional staff.

In terms of ensuring equal treatment and opportunities for health professionals who have been recruited internationally – which is also crucial to maintaining good health sector morale – some countries such as England (42), Ireland (43) and Scotland (44) have introduced codes of practice. These codes set out principles for ethical and effective international recruitment, highlight the need to assess the impact of recruitment agencies, and emphasize that migrant workers should receive fair and equal treatment. The codes in England and Scotland also specify which countries should not be targeted for active recruitment, and the latter makes an explicit commitment to monitoring of recruitment activity by the National Health Service in Scotland. There is also a need in some destination countries to examine how to support and encourage non-practising international health professionals (such as refugees) into employment. Some international associations of health professionals have set out principles and protocols for recruitment (45–47).

Destination countries need to ensure that they have in place an appropriate regulatory framework that not only supports international health professionals but also assesses their competence. The patient-safety risk factors associated with employing a multinational workforce, with different first languages, types of training and cultural approaches to patient care, must also be assessed.

WHO is currently working to develop a global consensus on a framework and possible code for the international recruitment of health workers. Multilateral codes already cover the Commonwealth of Nations and Pacific Island states. The Commonwealth Code of Practice for the International Recruitment of Health Professionals (48) provides Commonwealth governments with a framework within which international recruitment of health workers should take place. It sets out fair and equitable recruitment practices and is intended to discourage targeted recruitment of health workers from countries experiencing shortages and to safeguard the rights of recruits and the conditions relating to their profession in the recruiting countries. The Code emphasizes that recruitment of health care workers should be transparent, and that recruitment agencies and employers should make clear the conditions of employment for recruits. It encourages fairness and recommends that agencies provide full and accurate information to potential recruits and not seek to recruit those who have an outstanding obligation to their own countries. The Code also stresses mutuality of benefits, and that recruiters consider ways in which they could provide assistance to source countries. Other elements of the Code include:

ensuring that recruits fully understand their contracts; making regulatory bodies and specific requirements known to recruits; and encouraging Commonwealth countries to explore and pursue additional strategies for retaining trained personnel. The Code is not, however, a legally binding instrument.

Developing policy-relevant approaches to managing migration

At the broadest level, there are two policy options for countries and regions faced with the in-migration and/or out-migration of health workers. One is to do nothing and allow the market to determine the direction, level and dynamics of health worker migration. The other is to develop policies to facilitate or direct the migration process to come as close as possible to a win–win situation (or at least not a win–lose situation that penalizes those countries that can least afford to lose). Table 5 summarizes the possible opportunities and challenges facing affected countries.

Table 5. Health worker migration: opportunities and challenges for those involved

Actors	Opportunities	Challenges
Destination country employers	Solving skills shortages	Efficient (and ethical?) recruitment
Source country employers	Generating remittances or other resources	Outflow causing skills shortages
Mobile/migrating health workers	Workers returning with improved skills	
	Improving pay and career prospects	Achieving equal opportunities in destination country
Static health workers	Improved job opportunities (if oversupply)	Increased workload; lower morale

This section identifies three main, complementary areas in which policy-makers should examine the potential for relevant action to help mitigate any negative effect of migration on supply.

Policies to improve the monitoring of health worker migration

Informed policy-making demands information. Policy-makers must be able to assess the impact of migration on the total number of workers in the system and the size of the migratory flow relative to other flows. There are, however,

two basic problems with the current availability of data on the migration of health professionals: it is at best incomplete for any one country and it is certainly not compatible between countries. While the EU has carried out limited collation of data on cross-border flows of physicians and nurses, using country-level data (primarily professional registration data), this has been hampered by the data being incomplete and not readily available in a format that would facilitate policy-related assessment (11).

Policy-makers must strive to ensure that the two main indicators required for assessing the relative importance of migration and international recruitment are available: trends in the inflow of workers into the country from other countries (and/or the outflow to other countries) and the actual number of international health workers in the country at any point in time. These data may be obtained from one or more of a range of sources, such as professional registers, censuses and work permits. Table 6 provides recommendations for collecting data to support monitoring.

Developing in isolation a minimum data set to track international flows would not be as effective as establishing an integrated system for collecting the complete range of data on the health sector workforce. In particular, if international flows were tracked in isolation it would not be possible to assess

Table 6. Recommendations on a country-level data set for monitoring international flows of health workers

Workers	Minimum data	Additional data
Inflow/Outflow	Numbers per occupation leaving (by destination)	Qualifications of leavers and joiners
	Numbers per occupation entering (by source)	Work location of leavers
	Gender	
	Age profile	
Stock	Total number per occupation	Qualifications
	Numbers per occupation working in sector	Geographical distribution
	Gender	Work location
	Age profile	Length of stay

Source: Buchan, Parkin & Sochalski (3).

their relative impact compared to flows to and from internal sources and destinations. Countries may also wish to examine in greater detail the nurses' motives for moving and their career plans. This is best achieved through surveys (for example, in collaboration with professional associations, registration bodies and trade unions or by using structured focus groups).

It will also be important to be able to take account of different types of migration, which may have different policy implications. For example, temporary flows of migrant health professionals may be increasing. Easier (and cheaper) transport links make it feasible for an Estonian doctor to work at the weekend in Finland, or for a German general practitioner to work for a couple of days in the United Kingdom. Health care is a 24-hour system, and temporary migrants may become a greater source of cover at unsocial hours or at peak periods of workload in destination countries such as the United Kingdom.

Helping to direct migration flows

Another possibility is for countries to develop policy interventions that act on the inflow or outflow of international health workers. Table 7 summarizes some of the possible policy options. All have been discussed and most have been implemented somewhere in the world, but there is an almost complete lack of independent research and evaluation of their impact within the health care sector.

In terms of identifying which intervention or set of interventions will be most effective for a specific source or destination country, it should be noted that there is virtually no published research on the impact of bilateral agreements or codes of practice in the health sector or on other related policy interventions. Most research has focused on the trends and impact of out-migration in Africa, and as such there is an urgent need to support more detailed examination of these issues within the European context. The absence of research and evaluation is a major policy constraint (12, 14, 49, 50); a priority for policy-makers must be to contribute to improving the evidence base by sharing experiences in using these interventions and in commissioning evaluations of their effects.

As noted above, one key aspect of such an approach is to achieve effective interdepartmental agreement and collaboration within national governments so that finance, regulatory, overseas aid, health and immigration authorities, among others, work together in an agreed overall policy direction. Another associated issue is to recognize the role that recruitment agencies often play as intermediaries in enabling health workers to move from one country to another, and to involve these agencies as stakeholders in the process. Some countries now regulate recruitment agencies or have developed a list of "preferred provider" agencies that have agreed to follow country policies on migration.

Table 7. Examples of potential policy interventions for directing health worker migration

Level	Characteristics
Twinning	Links developed by health care organizations in source and destination countries based on staff exchanges, staff support and flow of resources to source country
Staff exchange	Structured temporary move of staff to another organization, based on career and personal development opportunities or organizational development
Educational support	Educators and/or educational resources and/or funding in temporary move from destination to source organization
Government-to-government bilateral agreement	Agreement developed by destination country with source country to underwrite costs of training additional staff and/or to recruit staff for a fixed period, linked to training and development prior to staff returning to source country or to recruiting surplus staff in source country
Country-level fast tracking of health worker immigration	Preferential status or priority treatment given to health workers in terms of immigration requirements in order to speed up immigration process and facilitate active international recruitment
Country-level recruitment code	Introduction of a code by the destination country restricting employers in terms of which source countries can be targeted and/or length of stay of recruits; coverage, content and compliance issues all need to be clear and explicit

Country-level self-sufficiency	Development by a country of an explicit policy of self sufficiency in identifying its future workforce needs and developing approaches to meet these needs from its own resources
Country-level, bilateral or multilateral mutual recognition agreement	Agreement on mutual recognition of health professional qualifications/training to facilitate cross-border movement of health professionals
Compensation	Reimbursement or some type of compensation by the destination country to the source country for the impact of its active recruitment (much discussed but with little evidence in practice)
Training for export	An explicit decision by government or the private sector to develop a training infrastructure to train health professionals for the export market in order to generate remittances or fees
International code	A code of ethics, covering a range of countries, whose relevance will depend on content, coverage and compliance; WHO is currently working on a global code

Sources: Dumont & Zurn (4); Buchan & Perfilieva (14).

Improving human resources policy and practice

Migration of health workers does not happen in isolation from other dynamics in health care labour markets. Migration is not necessarily itself the problem, but may instead be a symptom of deeper problems within health systems. These may include the challenges of retaining health professionals (motivation, pay), the work environment, and challenges of improving workforce planning to reduce the oversupply or undersupply of health professionals.

The third area of policy focus must therefore be on more general human resource policy, planning and practice in health systems. This must include fair and equitable treatment for all health professionals (be they home-trained or international) and efficient deployment of their skills. Improvements in general human resource policies in the health sector will assist in reducing any negative effect that migration would otherwise have on health system performance. Addressing the challenges of improving effectiveness in human resources in the health sector requires a broadly based effort (51) and should be founded on a systems-based assessment that takes account of the major stakeholders and key policy links and interfaces (22,52).

Finally, it should be stressed that the objective of existing and potential policy measures is not to stop migratory flows of health workers (which would not in any case be possible and cuts across notions of individual rights and freedoms) but to seek to develop a situation whereby the individuals and countries involved have the possibility of a positive outcome. The policy objective of any, and indeed all, future options must be to encourage possible opportunities and deal with identified challenges.

Conclusions

This brief has examined the critical policy issues related to mitigating any negative impact of migration on the supply of health professionals at country level in Europe. The incomplete data available suggest an upward trend in international flows of health professionals, with evidence that some countries are looking to fill vacancies by encouraging inflow either from bordering countries or from further away.

The demographic trends in many of the better-off European countries, in particular a growing elderly population and an ageing health care workforce, may make it more likely that these countries will actively encourage the inflow of more health workers over the next few years.

Assessing the significance of inflow of international health workers by comparing with stock or with inflow from home-based sources can assist a country in determining how reliant it is on international migrants. Assessing

outflow in a similar manner will enable an assessment of any damage being done by loss of skilled health professionals.

As a minimum, there is a clear need to improve the available data on migratory flows of health professionals so that monitoring of trends in flows can be more effective. This will enable the second objective to be achieved – identifying which countries may need more detailed policy consideration through measures to manage the process, in order to reduce negative effects on the supply of health professionals. For all countries there is also a third imperative – to ensure that their human resource policies, planning and practices in the health sector are effective and thus allow supply to be better maintained.

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