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Review

Health professionals moving to. . . and from Portugal

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ABSTRACT

The mobility of health professionals in the European Union is a phenomenon which policy-makers must take into account to provide the conditions to adjust for demand and supply of health services. This paper presents the case of Portugal, a country which at the same time imports and exports health workers. Since the early 1990s Portugal became a destination country receiving foreign health care professionals. This situation is now changing with the current economic situation as fewer immigrants come and more Portuguese emigrate.

Foreigners coming to Portugal do so in part for similar reasons that bring Portuguese to want to emigrate, mainly the search for better work conditions and professional development opportunities. The emigration of Portuguese health professionals is also stimulated by the difficulty for recently graduated nurses, dentists and diagnostic and therapeutic technicians to find employment, low salaries in the public and private sectors, heavy workloads, remuneration not related to performance and poor career prospects.

The paradoxes described in this study illustrate the consequences of the absence of a policy for the health professions. Strategies based on evidence, and on an integrated information system that captures the dynamic evolution of the workforce in health are not only necessary but also a good investment.

1. Introduction

The mobility of health professionals between countries and within countries has received increase attention in the last few years, both from researchers and from policy-makers. The phenomenon of migration of physicians, nurses and other health workers is better understood in terms of the factors that motivate qualified professionals to migrate. The literature describes in detail the so-called "push and pull" factors behind such a radical decision.

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These are a mix of economic, political, professional factors at play in the places of origin and destination. The perceived negative effects of such migration on source countries, such as loss of investment in the education of qualified workers or reduced access to health services, have led to the adoption by the World Health Assembly of a Code of practice on the international recruitment of health personnel in 2010 [1]. Promoters of the Code were principally concerned with migratory flows from low-income countries and with practices by richer countries which did not seem to take into account the damages they were causing by actively recruiting in countries which already suffered from important deficits of health workers.

Even though all recognized the existence of such migratory flows, little was known on their amplitude, their direction or the form they took (permanent, temporary, cross-border, transit, circular, etc.). This lack of data and knowledge existed in the European Union, which brought the European Commission to commission research to better document the phenomenon within its borders. An additional motivation was to assess whether the freedom of movement of persons within the Union had affected the health workforce. Three studies have produced a total of 47 country cases with a view to document better mobility flows and their effects [2–4]. One point of consensus among these studies is that there are important variations between countries, between professional groups and between time periods.

In this paper, we discuss the case of Portugal, a small country of the Iberian Peninsula which presents specificities which should interest students of migration of health professionals. It went from being a source then a destination and recently again a source country. Also Portugal has only one neighbour, Spain, and flows of physicians and nurses across the borders have also fluctuated according to economic changes and to health sector reforms. We first present data on the stock of health professionals (physicians, nurses, pharmacists and dentists). We then identify the factors which influence the various flows from and to other countries, and within the country; this is of interest because Portugal is composed by a continental part and two groups of island in the Atlantic (Azores and Madeira) which have their own health care system. The final section is a discussion of the consequences of these flows on the health services system and their policy implications.

In addition to documenting the phenomenon of mobility of health professionals in Portugal, over the last decade, our objective was to better identify and understand its consequences in terms of planning and monitoring the health workforce and its implications for policy development.

2. Materials and methods

An inventory of statistical and other relevant information sources on the general context of the health sector and on the health workforce was first performed. This was conducted in 2009, as part of the European Union funded project "MoHProf – Mobility of Health Professionals" which covered a mix of destination countries within the European Union and of source countries from outside [5]. A template for the preparation of the case study was developed by project and applied as rigorously as data available allowed. For the purpose of this paper, data and information were updated.

To complement statistical data and to identify potentially useful additional sources, interviews were conducted with representatives of medical, nursing and dental councils, of three trade unions, of the Ministries of Health, Labour and of an Association of students of medicine abroad. The interviews took place between July and October 2009.

For the study of internal geographical mobility – between the Azores Islands and continental Portugal – three strategies were used: (i) an analysis of available general statistical information; (ii) questionnaires to all health centres in the Azores region ($N = 17$), between November 2010 and January 2011, on personnel from other islands in the Azores, from mainland and from other countries employed between 2005 and 2010, and personnel who left (response rate = 44%); and (iii) interviews with key-informants conducted between November 2010 to February 2011.

We also interviewed representatives of six foreign and national recruitment agencies out of thirteen active in Portugal identified through an internet search. These where conducted from December 2010 to January 2011.

2.1. Data sources and limitations

There is no single comprehensive database on the Portuguese health workforce [6]. Professional councils are the primary source of information for data on the total stock of physicians, nurses, dentists and pharmacists registered in the country. These databases do not provide information on whether the registered are active, in what type of activity (clinical services, education, management, or a mix of activities) or where (Portugal or abroad). Also, councils do not always use the same variables, definitions or timeframes, which makes comparisons difficult. For example, the definition of "foreign" varies according to sources: it may mean foreign national, foreign-born or foreign-trained.

For occupations which do not have a registration body, trade unions, professional associations and the Ministry of Health are the only sources of data. The latter classifies occupations according to the categories of the National Health Service (NHS), the main health workforce employer in Portugal. The Ministry of Labour and Statistics Portugal use a different classification. Data on NHS staff are easily accessible, but they cover only workers in the public sector. Indeed, information on the health workforce in the private sector is scarcer and much less reliable. There is a legal obligation for all private and public firms to annually report to the Ministry of Labour many variables describing their staff, but the Ministry itself recognizes that its database is far from complete and that there are no means, other than site visits, to verify data provided by employers. Another source of information would be the Ministry of Finance, which uses the same classification of professions as that the Ministry of Labour and Statistics Portugal, but data from income tax returns is not accessible. No reliable

information is available on professionals who work both in the public and private sector [7].

3. Results

3.1. The stock of health professionals

Since 2000, there has been a continuing growth in the absolute number of physicians, nurses, dentists and pharmacists and in their density per 1000 inhabitants [6,8]. In 2009 the density of physicians per inhabitants was above the European Union average, whereas density of nurses was below [9].

In terms of the geographical distribution of registered professionals per population, the coastline is significantly advantaged [6,10], though the regional distribution of nurses and of pharmacists across the country is more equitable than that of physicians [6].

The increase in the number of physicians in the last 10–15 years does not seem to have been enough to meet the demand, as many physicians work in more than one institution or work overtime in the public sector [11]. National Health Service (NHS) physicians are salaried employees, although mixed remuneration systems have been introduced in Health Centers in 2005. Salaries are established according to a matrix linking professional category and years of service, ranging from 1390 to 5664 euro per month (before salary cuts were introduced in 2010). Individual contracts are allowed in some NHS organizations but their wage range is not known. Two-thirds of registered physicians are specialists (Fig. 1 and additional Table A1), but some specialties such as family medicine and public health experience shortages [12]. Medicine is becoming a predominantly feminine profession. For the first time, in 2010, there were more women than men on the register [13]. As 64% of medical students were women in 2012, the trend towards feminization will accelerate in the coming years [14]. Demand for family physicians is not satisfied as an estimated 10% of the population does not have access to either a specialist in family medicine or to a general practitioner [15]. For more than ten years, this problem has been anticipated to become more critical with the ageing of the medical profession [16], which official NHS data confirm [17]. When stiffener penalties for retiring early were announced in 2010, there was a surge in early retirements which accentuated the predicted shortage. In 2012, 51.6% of registered nurses were under 40 years of age. The ratio of nurses per inhabitant has increased consistently since 2000, but not enough to change the nurse per physician ratio which remained stable at 1.5. Nursing trade unions estimate that 5000 nurses are missing in health centres, and that, based on a classification of patient's dependency, 20 000 nurses are missing in hospitals.

While many work overtime or have multiple jobs, there is unemployment of nurses. The number of nurses registered in unemployment centres went from 294 in 2005 to 616 in 2006, and 1261 in 2007 [18]. In 2012, the number of unemployed, including those who register as such and those who do not, is estimated by the Nursing Council at between 7000 and 9000 [19]. The majority of nurses are generalists, but since 2005 there is an increase in the number of specialized nurses which reached 19% in 2012. Maternal health nursing and midwifery are the main specialties (Fig. 2 and additional Table A2). Like for physicians, nurses' salaries are linked to civil service pay-scale according to a matrix of professional category and years of service, ranging from 1200 to 2900 euros per month. As for physicians individual contracts are possible in specific public organizations.

The growth of the number of pharmacists is comparable to that of other health professions (Fig. 3 and additional Table A3). Between 2001 and 2008, the growth was 43%. Approximately 60% of them work in community-based pharmacies, which in Portugal are small private businesses employing less than 10 pharmacists and assistants.

The number of dentists almost doubled between 2000 (3321) and 2009 (6595).

3.2. International migratory flows

Portugal, which has traditionally been a source country, has become a destination country in the 1990s. This is changing with the current economic situation as fewer immigrants come and more Portuguese emigrate.

According to the State Secretariat for Communities [20], in 2012, nearly 100 thousand of residents in Portugal emigrated, a number that approximates the large migration waves of the 1960s. As to the total number of immigrants in Portugal, it has declined by 1.90% in 2011 [21].

3.2.1. Foreign health professionals in Portugal

Portugal has received foreign health care professionals since the early 1990s [22]; between 1998 and 2004, the number more than tripled. The ratio of foreign health professionals among National Health Service staff reached its peak in 2004 at 36.7 per thousand. Since then, the annual growth has decreased, mainly due to the exit of Spanish professionals after 2005 [23]. Professionals from the PALOP (*Países Africanos de Língua Oficial Portuguesa*, African Countries with Portuguese as Official Language: Angola, Cape Verde, Guinea-Bissau, Mozambique, São Tomé and Príncipe) were also less numerous in 2010 than at the beginning of the decade, whereas, those from Brazil and from "other countries" were more numerous, in the latter case by more than 300%.

In the NHS, there were 3061 health workers of foreign origin or 2.4% of total staff in 2010, the last year for which this information is available. These included 1696 physicians and 690 nurses, representing 78% of all foreign health professionals. Overall, 63% were women [23] (Table 1).

Like their Portuguese colleagues, health professionals of foreign origin working in the NHS are mainly found in the Lisbon (42%, in 2010) and North (27%, in 2010) regions [23].

Using OECD data and country data for 2008 or latest year available, the European Observatory on Health Systems and Policies categorized Portugal as a country with a high reliance (11.1–18.4%) on foreign medical doctors. Belgium, Spain, Austria, Norway and Sweden were in the same category [2]. By comparison, Estonia, Slovakia, Poland, Hungary, Italy and France showed low reliance (less than 5%). Moderate reliance is observed in Germany and Finland (5.2% and 6.2%, respectively), whereas Switzerland, Slovenia, Ireland

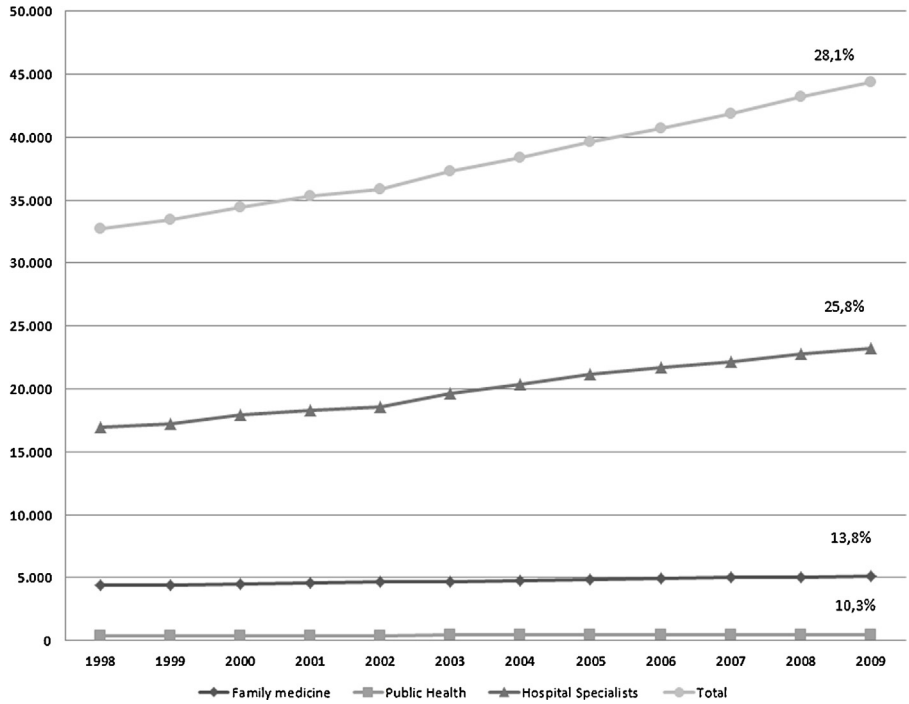

Fig. 1. Number of registered physicians by category, 2000, 2005, 2009 and growth rate 2000–2009. *Note*: Specialists in Family Medicine work in Health centres; Hospital specialists Include 45 specializations recognized by the Medical Council; %.
Source: Medical Council Database on line growth rate 2000–2009: www.ordemdosmedicos.pt/?lop=stats_medicos.

and the United Kingdom had very high levels of reliance, at between 22.5% and 36.8% [2].

Spaniards were the most important group of foreign physicians in the NHS in 2010 representing 41% ($N = 696$) of the total foreign stock. An additional 8% came from other EU countries (Table 1). Data for the period of 2001–2010, during which there have been two enlargements of the EU, do not show any inflow that might be attributed to the

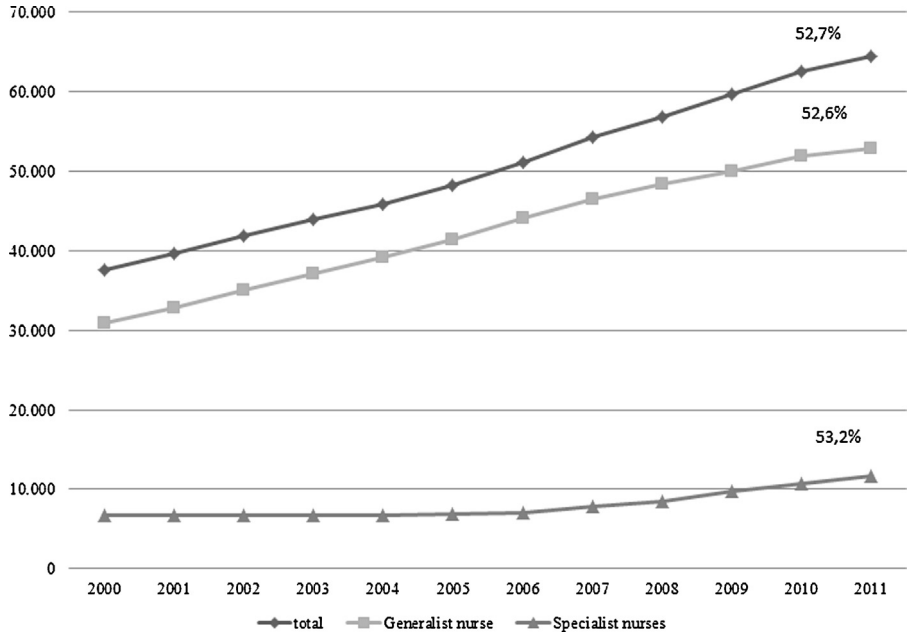

Fig. 2. Registered Nurses by specialization 2000, 2005, 2011 and growth rate 2000–2011. *Note*: %growth rate 2000–2011.
Source: Nursing Council, Statistic Data 2000–2011, January 2012. Available at: http://www.ordemenfermeiros.pt/membros/Documents/OEDados%20Estatisticos_2000_2011.pdf [last accessed June 2012].

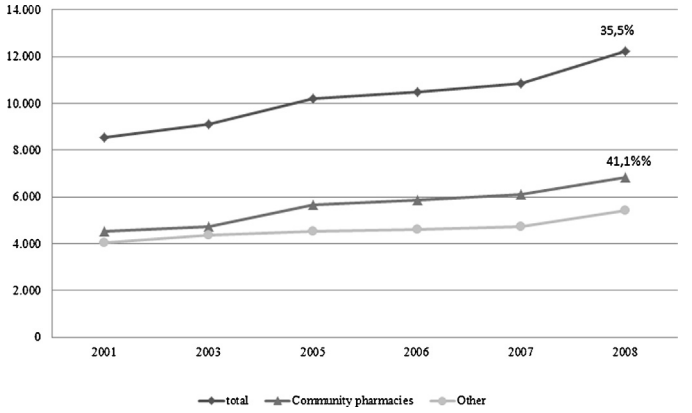

Fig. 3. Number of registered pharmacists by type of professional practice, 2001, 2005, 2008 and growth rate 2001–2008. *Note*: Other include Clinical analysis, Hospital pharmacy, Pharmaceutical industry, Education, Pharmaceutical distribution and research; %growth rate 2001–2008.
Source: Pharmacy Council.

opening of borders. The second most important country of origin is Brazil ($N = 227$, 13%) and the third is Angola ($N = 113$, 7%). The five PALOPs ($N = 334$) accounted for around 20% of the total.

Almost half of foreign physicians in the NHS had a hospital specialty in 2010. The specialties with more foreigners are family medicine, internal medicine, general-surgery and anaesthesiology [23].

Since 2006, the Ministry of Health has contracted approximately 50 physicians from Cuba, Costa Rica, Colombia, and Uruguay to occupy vacant NHS positions in underserved areas. Medical organizations have unsuccessfully opposed this strategy arguing that the problem was not the lack of professionals, but the lack of incentives to convince Portuguese physicians to apply for these positions. To date, there has been no assessment of the effects of these recruitments, for instance in terms of their acceptability by populations or of adaptation to a different language and cultural context.

Reliance on foreign nurses was also estimated by the European Observatory on Health Systems and Policies; it was rated as negligible in Turkey and Slovakia and as relatively low in Spain, Hungary, France, Finland, Sweden, Germany, Portugal and Belgium. Italy is in the moderate reliance category, and the United Kingdom, Austria and Ireland have high or very high reliance on foreign nurses [2].

The evolution of the number of foreign nurses in the NHS is characterized by a major drop between 2001 and 2010 from 1619 to 690 (Table 1). This is due essentially to

Table 1
Number of foreign human resources, total, physicians and nurses, in NHS, by group of countries, 2001–2010.

Group of countries/country		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average annual variation (%) (2001–2010)
European Union	Total	2236	2555	2743	2679	2478	1937	1647	1389	1314	1339	−40.1
	Physicians	855	1039	1157	1226	1243	1143	1039	915	795	828	−3.2
	Nurses	1347	1464	1520	1355	1135	718	526	399	417	406	−69.9
Of which Spain	Total	2090	2387	2540	2390	2179	1689	1356	1140	1037	1031	−50.6
	Physicians	804	983	1090	1128	1140	1040	913	799	681	696	−13.4
	Nurses	1271	1383	1427	1238	1013	630	431	319	328	310	−75.6
PALOP	Total	783	835	823	1160	1088	891	877	743	816	753	−3.8
	Physicians	425	437	401	542	484	422	421	355	365	334	−21.4
	Nurses	184	204	180	235	220	179	169	116	130	115	−37.5
Brazil	Total	251	307	316	348	374	343	363	405	457	475	89.2
	Physicians	134	155	152	172	188	178	192	197	208	227	69.4
	Nurses	66	85	87	96	97	84	75	66	78	77	16.6
Other countries	Total	104	135	187	303	365	384	372	404	494	494	375
	Physicians	79	99	120	173	208	247	251	253	292	307	288.6
	Nurses	22	16	26	44	74	73	66	66	102	92	318
Total	Physicians	1484	1730	1830	2113	2123	1990	1903	1720	1660	1696	14.3
	Nurses	1619	1769	1830	1730	1526	1054	836	647	727	690	−57.4
	Total	3374	3832	4069	4490	4305	3555	3259	2941	3081	3061	−9.3

Source: Administração Central do Sistema de Saúde (ACSS): Recursos Humanos Estrangeiros no Ministério da Saúde – Actualização 2009/2010. Outubro, 2011. Lisboa: Administração Central do Sistema de Saúde, 2011.
Note: EU, European Union; PALOP, *Países Africanos de Língua Oficial Portuguesa*; African Countries with Portuguese as Official Language.

Table 2
Number of registered dentists by nationality, 2005, 2009 and 2011.

Nationality	2005	2009	2011
Portuguese	4000	5900	6695
Brazilian	538	476	493
Italian	44	49	52
German	29	28	29
French	27	16	14
Spanish	26	28	34
Other	99	98	102
Sub-total (foreign)	763	695	724
Total	**4763**	**6595**	**7419**

Source: Dental Council. Ordem dos médicos dentistas. Números da ordem. Lisboa: OMD, 2006, 2010 and 2012. Available at: http://www.omd.pt/numeros [last accessed September 2012].

the departure of nurses from Spain. In 2010, there were 115 nurses from the PALOPs, down from of 235 in 2004, a diminution attributable to a combination of few arrivals and many retirements.

There are very few dentists and pharmacists working in the NHS to the point that statistics on foreign personnel do not categorize them as separate groups. Foreign pharmacists represent less than 1% of the total stock and, as regards emigration, the Pharmacy Council estimates that the number of pharmacists leaving the country is very small. According to Dental Council statistics (Table 2), in 2011, 724 dentists were of foreign origin, representing 10% of the profession. More than two-thirds ($N = 493$) were from Brazil and another 17.8% ($N = 129$) from Italy, France, Spain and Germany combined. According to interviews, the arrival of Brazilian "dental surgeons" in Portugal created tensions because these had fewer hours of training then Portuguese dentists. In the end, they were requested to attend additional courses to have access to registration. Brazil is an important producer of dentists and the flows of the early 2000s were a result of overproduction. The Portuguese market is also saturated and immigration of Brazilian dentist has been reduced to a trickle.

3.2.2. Spanish doctors and nurses in Portugal

In the 1990s, job insecurity and careers prospects limited to temporary contracts pushed Spanish physicians to emigrate [23]. Most went to Portugal, France and the United Kingdom [24]. Spanish health professionals have constituted the majority of the foreign contingent in Portugal since 2001. The number of NHS' physicians peaked 1140 in 2005 and then declined to less than 700 in 2010 (Table 1). There were 1271 NHS' Spanish nurses in 2001, 1427 in 2003 and then there was a steep decline, mainly after 2005, to 310 in 2010 (Table 1). Key-informants indicated that the improvement of working conditions and better job opportunities explained the changes observed, particularly in the case of nursing. The decline was less important among physicians, probably because most came at an early stage in their career, as a majority are less than 39 years old, with a view to become specialist, a process that cannot be interrupted easily. NHS physicians were more concentrated in the North region (317/696), and NHS nurses in the capital city region (178/310).

The Association of Spanish Health Professionals in Portugal (APSEP) estimated that a considerable number of Spanish doctors working in the NHS continued to live in Spain. It also noted the trend towards returning to Spain, attracted by a health labour market that offered better conditions [25]. According to APSEP, about 1500 Spanish nurses were working in Portugal in 2007, many living in Spain and commuting daily [25]. Given that the NHS recorded only 431, the majority are presumed to work in the private sector.

3.2.3. Portuguese health professionals abroad

There is no monitoring of emigration flows of health professionals from Portugal. The phenomenon can be approached indirectly by looking at proxy indicators such as requests for validation of qualifications, suspension or cancellation of registration, indication of a foreign address, exit of the NHS or expatriation rates.

OECD data for 2004 give an "expatriation rate" of 5.7% for nurses ($N = 2655$) [26]. In 2006, there were 277 nurses of Portuguese origin in France [27], and in 2008, 544 in Germany [28]. Between 2002 and 2007, 221 Portuguese nurses registered in Spain [25]. Informants estimate that the more important current flows are to the United Kingdom and to the USA. UK Nursing and Midwifery Council data indicate that the number of Portuguese nurses admitted to the UK register has grown from 20 in 2006/7 to more than 550 in 2011/12 [29].

The Nursing Council reported that in 2008, 929 Portuguese nurses suspended or cancelled their license, but this does not mean that they left the country. On the other hand, leavers may not necessarily suspend their license if they do not expect their expatriation to be permanent. In 2012, the nurse council received 2814 requests for an EU-certificate (*Declaração das Directivas Comunitárias*) to work abroad [30]. Reasons to emigrate include the difficulty to enter the labour market for new graduates, low salaries, working conditions (workload, schedules) considered as tough, the absence of incentives to work in the interior regions and limited career prospects.

In 2009, Dental Council figures report 1% of dentists working abroad but representatives of the Council say that this is underestimated because this refers only to those who maintained their registration. They estimate that, only in the United Kingdom, there are 200 Portuguese dentists, which represents 4% of all dentists registered in Portugal. The Dental Council reports that in addition to better work opportunities, these dentists can more easily acquire a specialty, including some which are not available in Portugal. Spain, the USA, Brazil, and Nordic countries are the preferred destinations to do specialty studies. Dental association advocates for more dental services in the NHS, if only for activities of education and prevention, but they have not been successful thus far.

Key-informants did not consider the emigration of physicians as a major phenomenon. However, this may be changing as the following information shows: in January 2012, a French recruitment agency visited Lisbon and in two days 700 physicians registered for an interview [31].

3.2.4. Portuguese medical students abroad

There is a growing number of students leaving Portugal to study medicine principally in Spain, England, Hungary, Slovakia and in the Czech Republic. An Association of Medical Students Abroad [32] was even created in 2009. It estimates their number at around 1300.The *numerus clausus* applied in the 7 schools of medicine and admission mechanisms which focus on secondary school grades block the aspirations to a medical career of young people who feel that they have the capacity to meet the requirements of medical education. This is the main reason for applying to a foreign university. Faculties in Eastern Europe offer programmes in English which meet the Bologna criteria. In Plzen (Czech Republic), the Portuguese community of students of medicine is the biggest foreign community. ANEME is advocating for the possibility for its members to integrate Portuguese universities at the end of the first cycle of Bologna (3 years). As this phenomenon is recent, few have graduated and it is not known if they have returned to Portugal, where they have to follow the same steps as any foreigner has to go through to be registered.

3.3. Domestic mobility between the Azores islands and continental Portugal

The main flow is that of nurses from the mainland to the islands. In 2010, the nurse/physician ratio in the Azores (3.3) was more than double that of the country as a whole (1.5) [33]. There is a small number of non-Portuguese health professionals in the Azores (12 physicians and one nurse in 2008) [34], who tend to stay for a brief period of time before transiting to the continent. In surveyed health centres, in the five years previous to the survey, 12 physicians and 13 nurses were hired and 5 physicians and 24 nurses left. There are local government scholarships for locals who go to the continent to study medicine, but not all return in spite of rules committing them to do so, no exact data is available.

3.4. Factors influencing mobility flows

The decision to leave one's country to seek work opportunities abroad is not made lightly. Numerous factors are at play in bringing an individual to take the decision to emigrate and in choosing a specific destination. The literature characterizes these factors as stimuli to leave ("push" factors) and factors of attraction to another country ("pull" factors), the latter often mirroring the former are well known [35]. Table 3 summarizes these factors, as well as factors which explain why migrants remain in their destination country ("stay factors") or would-be migrants do not move ("stick factors") as they were identified by key-informants. The relative weight of each factor is time and context-specific and probably varies from individual to individual. Only more in-depth surveys of actual and potential migrants can shade light on the relative importance of specific factors.

Since 2009, the context of economic crisis, with high unemployment rates, salary cuts, higher taxation and planned downsizing of the public sector, can be regarded as a major push factor. Access to a position, to good working conditions, to higher remuneration, and to continuing education and specialization opportunities are factors of attraction, which are brought to the attention of would-be migrants by recruitment agencies present in the country, with some success as the case of nurses moving to the UK shows. Recruitment agencies looking for health professionals are active in Portugal. The six agencies that accepted to be interviewed said that they play an important role in the Portuguese health labour market, by providing information and support to candidates to

Table 3
Push, pull, stick and stay factors.

Push	**Pull**
• Overproduction of nurses, technicians and dentists in relation to jobs available in public and private services	• Demand for health professionals in other European countries
• Unemployment of nurses, diagnostic and therapeutic technicians and dentists.	• Training opportunities
• Low salaries (in public and private sectors)	• Active recruitment
• Remuneration system not related to performance	• Higher rates of remuneration
• Need of more than one job to meet remuneration expectations	• Bilateral Agreements
• Unsatisfactory working conditions	• Recognition of qualifications easy
• Heavy workloads	• Fast-track entry procedures
• Limited access to continuing education	
• Unmet demand for medical education because of *numerus clausus*	
• Absence of retention policies	
• Bilateral Agreements that facilitate mobility	
• Downsizing of the public sector	
• Dentists not included in the primary health care team and reform	
• High income taxes	
Stick	**Stay**
• Expected expansion of health care services due to ageing population	• Social Benefits Portability
• Unmet needs in dental care	• Family reasons (schooling of children, work of spouse, etc.)
• Low density of nurses being more and more recognized	• Access to social and political rights in country of destination
• Demand for some medical specialities	• Facilitation of integration
• Compared to overall unemployment, unemployment among health professions is low	
• Increasing demand in private care	
• Proposed review of career structures in the NHS	
• High retirement rates	
• Primary health care reform creating new work opportunities	

emigration. Information on the number of professionals which use their services or on those who were recruited in the past remains confidential. Interviews with recruitment agencies indicate that flows of Portuguese emigrants are more important among nurses whereas immigration flows are mainly of physicians. There is no information on the financial aspects of the work of recruitment agencies: how much they charge, what are their benefits. There is no code of ethics or of good practices with respect to recruitment procedures, in particular in relation to what happens to foreign recruits once they reach the destination country.

Not all those who do not meet their professional expectations emigrate. In addition to family reasons, which may limit mobility, the perspective of an increase demand with the ageing of the population, the expansion of primary care services and of the private sector and the projected high numbers of professionals going into retirement, are seen as possible stick factors [12]. In the case of nurses, the recognition that their density is low and that their roles can be expanded are also factors of retention. The fact that traditional destination countries also experience economic difficulties can also play a role in the decision not to move. Factors that encourage those who emigrated to stay abroad are typically: successful professional integration, family reasons (marriage, children at school, and work of spouse), social recognition (patients expressing satisfaction), and negative perception of the situation in Portugal.

Foreigners coming to Portugal do so in part for the same reasons that bring Portuguese to want to emigrate, mainly the search for better work conditions and professional development opportunities. For those coming from African and East European countries, push factors such as the following are at play: limited access to equipment, diagnosis means, and basic medicines, occupational risks due to high prevalence of contact with HIV-AIDS patients and absence of protective devices, very low salaries and in some instances unpaid salaries for months, heavy workloads. This is consistent with observations from other countries [36–38].

Immigration to Portugal is facilitated for professionals from the PALOPs and from Brazil by language and cultural affinities, and often by the existence of networks which can receive and support them [39–42]. In the case of physicians and nurses, this included two programmes of the Jesuit Refugee Service, with financial support from the Gulbenkian Foundation in partnership with several institutions (for instance, the Ministry of health, a public hospital and a nursing school) to help them meet registration requirements [43–45]. There are also bilateral agreements, such as with Brazil for the facilitation of work permits, or with Guinea Bissau for the transfer of persons with specific health problems, which has been used by some physicians to come to Portugal as patients first, then staying as immigrants [41].

4. Discussion

Even when health workers migratory flows are not quantitatively large, in small countries like Portugal, they may have a significant impact on access to services and thereby have important policy implications. Outflows of nurses appear to be an increase, and recent information indicates a similar recent trend among physicians [30,31]. If the flows augment, shortages may result and access to services may suffer. At the same time, young Portuguese who studied medicine abroad may be making the journey in the other direction. In terms of health workforce planning, the absence of information on these flows is a problem. There is no monitoring of outflows by professional councils or by any government agency. In any country this is a difficult task as health professionals are free to move and have no obligation to report their decision. This should not be a reason not to develop tracking mechanisms to at least be able to estimate the importance and direction of these flows and to understand what triggers them. Without this information, important variables that planners need to take into account would not be documented.

In Portugal, the National Health Plan 2012–2016 does not address the issue, as outflows of professionals are not perceived as symptom of policy failures in the health sector [46]. The first formal National Health Plan (1998–2002) advocated for the formulation of an explicit health workforce policy, which was not done, but a partnership between the Ministries of Health and Education on planning the number of health professionals to be educated was established [47]. Reports on health professions education and demographics were produced until 2005 [16,48,49]. Key informants reported that these reports did not influence policy and that objectives of the second National Health Plan (2004–2010), e.g. to develop an integrated health workforce information system, to adjust the supply of professionals to demand and needs, to review the remuneration system, to improve the planning of continuing professional development and to redefine the competencies of the various professional groups, were not achieved, except the limited introduction of performance-based remuneration mechanisms. Some of these issues, such as changing the nurse/physician ratio or the expansion of the role of nurses and of other professionals, such as pharmacists, who could have broader clinical activities, have yet to reach the political agenda [50]. Portugal faces a combination of major challenges: an ageing workforce, shortages and surpluses due to imbalanced skills mix, absence of processes and mechanisms to adapt training to changes in health needs, geographical imbalances and between levels of care. The absence of discussion on how to address these issues is not likely to facilitate the identification of appropriate responses.

The analysis of the situation of the health workforce in Portugal and the study of mobility flows of health professionals suggest the need for an integrated information system that permits a reliable and valid assessment of the current situation of the health workforce. This system could be based on registration data, which professional councils should be required to harmonize, and on employment data. It should cover the public and private sectors, and should capture the phenomenon of dual employment, which is a major challenge. The system should also monitor unemployment and migratory flows, including between the islands and continental Portugal. As regards the migratory flows, it is important that professional councils agree on a set of common indicators which allow identifying

"real immigrants", e.g. to differentiate between foreign-born, foreign-trained and foreign nationals who entered the country after qualifying as health professional. As to emigrants, a tracking system can be developed to monitor exits of the country. It will never be easy to record all exits, but mechanisms, such as the exchange of information with foreign registration bodies can be used. Finally, the Ministry of Health should monitor the implementation of the World Health Organization' Global Code of Practice on the International Recruitment of Health Personnel [1] adopted by the World Health Assembly in May 2010, in favour of which Portugal voted.

A research programme should also be developed to analyse available data and complement them with information from surveys conducted on a regular basis, for example on career expectations of future professionals, on intention to migrate or to move out of the health sector, or on the impact of incentives on choice of practice location or on productivity. Research is needed on the impact of European Directives, such as on the recognition of qualifications, on working time, and on the mobility of patients. The same applies to policies developed in other sectors such as Higher Education, Public Administration, Labour, which not only should be monitored, but assessed a priori, in terms of their possible impact on the health workforce. Information on good practices in comparable countries and on the feasibility of their adoption in Portugal needs to be made more accessible, so as to serve as an input in policy development. Although immigration from other EU countries is limited this may change with the implementation of the Directive on patients-rights to cross/border health care. Its effects are difficult to predict, but the health authorities would do well in assessing possible scenarios and their effects on the health workforce. It may be that the Directive has no or little effect in Portugal, in which case the impact on the workforce will be negligible. It may trigger outflows of patients who will want to get more rapid access to specific services, which would call for policies to improve access to these services in the country, as costs will presumably be higher in other countries. Another scenario is that foreigners may want to take advantage of cheaper services in Portugal and this would augment demand for health professionals. Another policy issue is what to do with Portuguese nationals who graduate from foreign medical schools. Their number will increase rapidly and since they are trained in EU institutions, Portugal will have to recognize their qualifications and register them. This constitutes an input in the stock of physicians which is not planned nor controlled. As far as we know, no assessment on the situation neither any policy has been defined to address this issue.

Effective policy development does not depend only on the quality of data and analysis. It requires above all the engagement of stakeholders such as other government agencies, professional associations, educators, students, and representative of users. A process of open dialogue is needed on what health workforce the country needs, on how its efficiency can be improved (for example, in the Family Health Units, the number of physicians and of nurses is roughly equivalent), how it can be better distributed to ensure equitable access to services to all citizens, how can unemployment and emigration of professionals trained at high costs for society can be prevented. In a cultural environment dominated by centralization of decisions, this will require an important mind shift among policy makers, managers and professionals themselves.

The development of information systems for strategic planning, support to research, policy dialogue will require significant investments in financial resources as well as much political commitment. This will seem much to ask in the present economic environment, but policy-makers should consider that the costs of not investing will certainly be much higher in economic terms, but also in terms of accessibility and quality of health services.

5. Conclusion

Since the early 1990s Portugal became a recognized destination country, receiving foreign health care professionals. This situation is now changing with a clearer trend in the emigration from Portuguese health professionals.

There is no monitoring of health professionals migratory flows, and no strategic plan for the development of the health workforce in Portugal. The paradoxes described here illustrate the consequences of the absence of a policy for the health professions. This policy, in line with the objectives of a policy of health services (priority to family health, continuity of care), should define objectives and strategies intervention in the production of health workers (what kind, that number), the division of labour between them (with special attention to areas of overlap and the possibility of delegation), the distribution by level of care and by geographical area, the regulation of quality and working conditions. Strategic thinking for the health workforce is a condition to ensure better accessibility to quality services in response to the needs of Portuguese population. Strategies based on evidence, and on an integrated information system that captures the dynamic evolution of the workforce in health are not only necessary but also a good investment.

Conflicts of interest

None declared.

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Appendix A.

See additional Tables A1–A3.

Table A1
Number of registered physicians by category, 2000, 2005 and 2009.

Category	2000		2005		2009		%Growth rate 2000–2009
	N	%	*N*	%	*N*	%	%
Family medicine[a]	4508	13.5	4892	12.3	5174	11.7	13.8
Public Health	415	1.2	454	1.1	463	1.0	10.9
Hospital Specialists[b]	17 945	53.6	21 161	53.3	23 272	52.4	25.8
Sub-Total	22 868	68.3	26 507	66.8	28 909	65.1	23.3
Non-Specialists	11 592	34.6	13 165	33.2	15 481	34.9	28.7
Total	33 460	100.0	39 672	100.0	44 390	100.0	28.1

Source: Medical Council Database on line: http://www.ordemdosmedicos.pt/?lop=stats_medicos.
[a] Specialists in Family Medicine work in Health Centres.
[b] Includes 45 specializations recognized by the Medical Council.

Table A2
Registered nurses by specialization 2000, 2005 and 2011.

	2000		2005		2011		Growth rate 2000–2011
	N	%	*N*	%	*N*	%	%
Total nurses	37 623	100	48 296	100	64 535	100	52.7
Generalist nurses	30 883	82	41 440	86	52 925	82	52.6
Specialist nurses	6740	18	6856	14	11 622	18	53.2
Rehabilitation	1017	3	1049	2	2277	4	76.5
Paediatrics	961	3	987	2	1805	3	61.0
Maternal health and midwifery	1576	4	1641	3	2379	4	40.6
Medical and surgical nursing	1141	3	1179	2	1928	3	51.3
Community health	478	1	1069	2	1873	3	118.7
Mental health	983	3	931	2	1355	2	31.8

Source: Nursing Council, Statistic Data 2000–2011, January 2012. Available at: http://www.ordemenfermeiros.pt/membros/Documents/OEDados%20Estatisticos_2000_2011.pdf [last accessed June 2012].

Table A3
Number of registered pharmacists by type of professional practice, 2001, 2005 and 2008.

Type of professional practice	2001		2005		2008		Growth rate 2001–2008
	N	%	*N*	%	*N*	%	%
Community pharmacies *(farmácia de oficina)*	4510	52.8	5672	55.5	6844	55.9	41.1
Clinical analysis	1056	12.4	1103	10.8	1091	8.9	3.3
Hospital pharmacy	598	7.0	778	7.6	939	7.7	44.4
Pharmaceutical industry	592	6.9	634	6.2	703	5.7	17.1
Education	403	4.7	393	3.8	360	2.9	−11.3
Pharmaceutical distribution *(Distribuição farmacêutica)*	247	2.9	378	3.7	436	3.6	55.3
Research	152	1.8	152	1.5	133	1.1	−13.3
Others	989	11.6	1105	10.8	1735	14.2	54.8
Total	8547	100.0	10 215	100.0	12 241	100.0	35.5

Source: Pharmacy Council.

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