



Contents lists available at [ScienceDirect](#)

Health Policy

journal homepage: [www.elsevier.com/locate/healthpol](http://www.elsevier.com/locate/healthpol)



# Migration intentions among Portuguese junior doctors: Results from a survey

Pedro Ramos<sup>a,b,\*</sup>, Hélio Alves<sup>b</sup>

<sup>a</sup> Medical Director Office, Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo, University of São Paulo, Brazil

<sup>b</sup> Faculty of Medicine of the University of Porto, University of Porto, Portugal

## ARTICLE INFO

### Article history:

Received 12 October 2016

Received in revised form

22 September 2017

Accepted 22 September 2017

### Keywords:

Human resources

Physicians

Migration intentions

Portugal

## ABSTRACT

Migration of health personnel during periods of economic crisis represents a challenge for policymakers in origin and destination countries. Portugal is going through a period of economic hardship and much has been speculated about an increase in junior doctors' migration during this period. Using a questionnaire administered to a sample of Portuguese junior doctors who were still in the general residency (1st-year after medical school), we aim at determining the prevalence of migration intentions among Portuguese junior doctors and to identify the most important drivers of career choice for those who are considering emigrating in the near future. In our sample, 55% of Portuguese junior doctors are considering working abroad in the coming 10 years. Several variables were associated with an intention to work abroad: female sex (odds ratio [OR] 0.559; 95% confidence interval [CI] 0.488–0.640), the National Medical Exam score (OR 0.978; 95% CI 0.961–0.996;), having studied abroad (OR 1.756; 95% CI 1.086–2.867) and considering income and research opportunities as key factors for future specialty choice (OR 1.356; 95% CI 1.132–1.626; OR 2.626; 95% CI 1.228–4.172).

Our study warns of the shortages the country may face due to doctors' migration and the main factors behind migration intentions in Portugal. Developing physician retention strategies is a priority to appropriately address these factors.

© 2017 Elsevier B.V. All rights reserved.

## 1. Introduction

Mobility of health personnel within the European Union (EU) area is a policy issue with growing interest over the past few years [1,2].

Health professional mobility may be described as “any movement across a border by a health professional after graduation with the intention to work, i.e. deliver health-related services in the destination country, including during training periods” [3].

In 2010, the OECD area had an average of 21% employed doctors who were foreign-born, and the influx of physicians has been increasing steadily in the past decade (2.7% increase in the share of foreign-born doctors between 2000 and 2010) [4].

In Europe, the PROMeTHEUS European Project – one of the most comprehensive studies on mobility of health professionals in Europe to date – showed that reliance on foreign medical doctors is

characterized by large differences across countries and that there is an east-west European asymmetry. Reliance levels tend to be negligible in the eastern part of Europe, low to moderate in central and western European countries, and highest in the Nordic countries, Ireland, the UK and Switzerland [5].

Nonetheless, research has mainly focused on the key factors that drive physician migration in developing countries [6,7,8,9], and evidence for high-income countries is scarcer. [10] reported that quality of life and work conditions and career opportunities were the most important factors cited by Irish medical students intending to leave the country, aspects that were also found to be determinant for German doctors [11] and for UK doctors moving to New Zealand [12].

In Portugal, evidence on the dynamics of doctor migration is lacking [13,14,15]. The country has been a destination for health care professionals since the 1990s, with a major inflow of doctors from CPLP countries (Countries with Portuguese as Official Language) and from Spain [16]. In 2010, the Portuguese NHS had 1696 foreign-born physicians (about 7% of total physicians), with more than 40% emigrating from Spain and one third from Portuguese-speaking countries [17]. The proportion of foreign-national doctors in Portugal found in the PROMeTHEUS Project was even higher

\* Corresponding author at: Diretoria Clínica, Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo, Universidade de São Paulo, Av. Dr. Enéas de Carvalho Aguiar, 255, Cerqueira César, São Paulo - SP, 05403-000, Brazil.  
E-mail address: [pedrosaldanharamos@live.com.pt](mailto:pedrosaldanharamos@live.com.pt) (P. Ramos).

(12%), and the country was classified as having “high” reliance on foreign health professionals in the workforce [5]. Yet, this scenario may be changing due to the current context of economic crisis the country is under: the 2015 OECD International Migration Outlook showed a 3.3% decrease in the share of foreign-born doctors in Portugal between 2000 and 2010 [4]; in a recent paper, Ribeiro et al. [17] argued that Portugal may be witnessing a change in the directions of doctors’ mobility, with increasing outflow of medical doctors; and the Portuguese Medical Association (*Ordem dos Médicos*) has been reporting an increase in junior doctors leaving the country, namely due to active recruitment by northern European countries such as Denmark, Germany and the United Kingdom. Moreover, in a study on job satisfaction among Portuguese medical residents, Martins et al. [18] reported that 65% of the respondents were considering moving abroad in the near future.

From a health policy standpoint, emigration of Portuguese doctors may exacerbate the country’s physician maldistribution problem: data from a large prospective study on human resources needs for the Portuguese Health System showed that, overall, the total number of doctors suits the Portuguese needs for the next decades, yet specific medical specialties and geographic regions remain continuously underserved [19]. Family Medicine is an area of particular concern: the number of family doctors had a net decrease of 14% in the last decade; more than 50% of the total number of specialists is over 50 years old; and the number of family medicine residents (medical doctors who are in a family medicine specialist training program) is 80% lower than the total number of specialists [19]. Inequality in the geographic distribution of doctors is also worrisome: doctors are located disproportionately in the main metropolises, namely in Porto, Coimbra, and Lisbon, whereas the regions of Alentejo, Algarve and inland North experience shortages (see Fig. 1) [20].

In this scenario, migration intentions among junior doctors may exacerbate potential future shortages. To our knowledge, however, there are no studies that have assessed Portuguese medical doctors’ intentions to emigrate or their key migration motivators during this period of economic crisis in our country.

In this study, we aim to determine the prevalence of migration intentions among Portuguese junior doctors and to identify the most important drivers of career choice for the junior doctors who are considering emigrating.

Junior doctors were chosen as our study population (as opposed to senior doctors) because there is extensive evidence showing that junior doctors are less likely to have settled down (ie. more open to emigrating) [21,22] and that they are more likely to stay abroad after emigrating [23]. Also, junior doctors represent health systems’ future workforce, so it is even more problematic when they are considering emigrating [3].

## 2. Methodology

This was a national-wide, cross-sectional, observational, questionnaire-based study, administered to Portuguese junior doctors who were still in the one-year compulsory general residency. Our universe was therefore the total number of first-year general medical residents in Portugal in 2014 (N = 1458).

The questionnaire was administered on paper in two “waves”: first, at the first-year general medical residents National Conference, held in Covilhã (a city in the inland of Portugal) in 2–4 October 2014; second, during the winter of 2014, in each hospital, in order to increase representativeness of groups who were unlikely to attend the meeting (e.g. doctors practicing at more remote areas, like the Portuguese islands or the Algarve).

The questionnaire contained three blocks: (1) personal and medical education data (age, sex, home address, university, general

residency hospital, National Medical Exam score, Medical School GPA, participation in research activities during medical school) and our key question of this study: whether the respondent was considering working abroad in the next 10 years; (2) a Discrete Choice Experiment (DCE) to assess Portuguese junior doctors’ preferences for medical specialty, that is described elsewhere; (3) questions eliciting the key factors considered by the respondent/participant for choosing his future medical specialty.

Statistical analyses included descriptive statistics of the sample and a logistic regression model for junior doctors’ intention to work abroad. The dependent variable in the regression model was a binary variable for “I am considering working abroad”, with several socio-demographic and medical education as independent variables (namely the doctors’ age, sex, home address region, university, general residency hospital, National Medical Exam score, Medical School GPA, and whether they have had engaged in research activities during medical school); additionally, we included as independent variables the factors that junior doctors selected as the most determinant for their future choice of medical specialty. These were the 8 attributes we had selected for our DCE and that previous authors had highlighted as important for career choices among junior physicians. These attributes, their meaning and the literature behind their choice is presented in Table 1.

We clustered the standard errors by junior doctors’ National Medical Exam score quartiles to account for correlation of the migration intention at the exam score level. This has reduced coefficients’ standard errors and improved model fit, on the basis of Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) criteria.

Stata Ver.12© was used to estimate the multivariate model.

## 3. Results

### 3.1. Socio-demographic characteristics

From the total universe of 1458 general medical residents in Portugal, 503 answered our survey (35%). A total of 55% of Portuguese junior doctors stated they considered working abroad in the next 10 years. A summary of the key socio-demographic and medical education variables in our sample is presented in Table 2. Overall, respondents were more often female, residing and having studied in the North of Portugal and having a preference for medical (non-surgical) specialties.

### 3.2. Key factors associated with migration intention

We also explore the differences in the self-reported key factors for career choice between respondents who were considering working abroad and those who were not. Fig. 2 shows that, at the 5% level, only those who stated that the level of research opportunities was crucial for their future career were associated with having a higher preference for working abroad.

In the multivariate analysis (Table 3), several variables were associated with intention to work abroad: female sex (odds ratio [OR] 0.559; 95% confidence interval [CI] 0.488–0.640), the score of the National Medical Exam (OR 0.978; 95% CI 0.961–0.996;), having studied abroad (compared to having studied in a Portuguese Medical School) OR 1.756; 95% CI 1.086–2.867) and having considered as key factors for future specialty choice “Income in the NHS” (OR 1.356; 95% CI 1.132–1.626), and “Research Opportunities” (OR 2.626; 95% CI 1.228–4.172). All other variables from Table 3 were not statistically significantly associated with intention to work abroad.

Download English Version:

<https://daneshyari.com/en/article/8818037>

Download Persian Version:

<https://daneshyari.com/article/8818037>

[Daneshyari.com](https://daneshyari.com)