

International Issues: Cross-border mobility of junior neurologists within and to the European Union

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ABSTRACT

Objective: To assess the general interest in and motivation for cross-border mobility among residents and junior neurologists from member states of the European Union and neighboring countries.

Methods: Questionnaire-based paper survey among 118 participants of a neurology course.

Results: Ninety-seven (82%) participants returned the survey. Most of them had at one point considered relocating within or to the European Union for postgraduate education (87%) or employment (71%). Common motivations were superior prospects for clinical training (85%), resources at work and academic environment (both 80%), and remuneration (70%). Barely half of the surveyed intended to return to their home country. The attractiveness of Europe as a destination for migration was ranked over other continents. The most common reasons that reduce enthusiasm for relocation were the loss of family connection (55%) and uncertain future prospects (41%), whereas language barriers were less relevant (21%).

Conclusion: There is keen interest of the upcoming generation of neurologists to relocate within and to the European Union. The motives include regional differences in training and career opportunities as well as economic welfare. Appropriate steps toward the harmonization of educational and career prospects are urgently required to ensure adequate provision of neurology service and patient care throughout Europe. *Neurology*® 2014;83:e128-e131

GLOSSARY

EAYNT = European Association of Young Neurologists and Trainees; **EFNS** = European Federation of Neurological Societies.

The European Union enlargements in 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia), 2007 (Bulgaria, Romania), and 2013 (Croatia) have increased the economic diversity among the member states. The 4 core objectives of the European Union (free movement of people, goods, capital, and services), together with mutual recognition of diplomas, have fueled mobility of citizens.¹ In 2012, 43,919 physicians decided to relocate to another EU member state, ranking physicians in second place of professional groups motivated to migrate.^{1,2} Among the key motivations were issues related to economic welfare, working environment, and career prospects.³ Additional arguments concerned higher quality of training and medical health care resources, and the anticipation of continuous political and economic stability. Neurologists may be particularly prone to cross-border mobility as timely practice depends on the availability of and training for costly diagnostic procedures and up-to-date treatments.⁴

The increased cross-border mobility of medical doctors within/to the European Union has shown an impact on the provision and quality of medical service. Subsequently, there is difficulty recruiting medical staff in some Eastern and Southern European countries and even in rural areas in Western Europe. The brain drain of medical doctors, however, may also be associated with advantages if the relocation is temporary. However, interest in returning to the country of origin has not been assessed so far.

The current survey undertaken by the European Association of Young Neurologists and Trainees (EAYNT) aimed to assess motivations for cross-border mobility among residents and junior neurologists from member states of the European Union and neighboring countries.

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Supplemental data
at Neurology.org

METHODS A paper-based survey questionnaire was distributed to the 118 participants of the Spring School for Young Neurologists. This course is organized by the European Federation of Neurological Societies (EFNS) and took place in Stare Splavy, Czech Republic, from May 12 to 15, 2011. The target audience was residents and junior neurologists from 45 national neurology societies represented within the EFNS and the 8 associated countries of the Pan-Arab Union. The questionnaire started with demographics including age, sex, details of postgraduate training status, and country of origin/medical school/current location. The second part included 6 questions. The answer type was multiple choice except for the last question, for which handwritten answers were requested (appendix e-1 on the *Neurology*[®] Web site at Neurology.org). This part of the survey involved questions regarding the consideration for relocation within or to a country of the European Union for either postgraduate education or to work as a neurologist. We surveyed the potential reasons for the consideration of cross-border relocation and the potential plans to remain in the foreign country or to return home after a few years. The last section assessed the ranking for certain countries and continents in relation to best patient care, highest scientific standards, and overall attractiveness.

RESULTS Ninety-seven of 118 participants (82%, table 1) returned the survey. The participants

originated from 34 different countries (table e-1). Regions of origin were the European Union (38%), neighboring countries (57%), and Arab Union (5%). Mean age was 31 years (SD 4.0) and 66% of the respondents were female. Two-thirds of participants were at the beginning of their training. Ninety percent of participants were residents coming from neurologic departments, including 80% from university departments and 10% from district hospitals. The remaining 10% came from polyclinics (outpatient facility providing ambulatory care) and among them 5% from private practices. Among all participants, 15% were PhD students obtaining in parallel their board certification in neurology.

None of the surveyed had already relocated for residency training.

Most of them had at one point considered to relocate within or to the European Union for postgraduate education (87%) or employment (71%).

Eighty-five percent indicated the prospect of better clinical training as a potential personal reason to

Table 1 Survey on mobility of residents and junior neurologists within/to the European Union (n = 97)

	Disagree, %	Neutral, %	Agree, %
Indicate potential personal reasons for migrating within/to the European Union			
Work environment (e.g., flat hierarchy)	3	47	50
Work resources (e.g., latest technology)	1	19	80
Work-life balance	10	26	64
Better patient care	5	27	68
Better clinical training	1	14	85
Better academic environment	1	19	80
Subspecialty not available at home	12	35	53
Salary	1	29	70
Better social welfare	5	39	56
Lacking career perspective at home	18	36	46
Following family already living in the foreign country	64	27	9
If you migrate, would you:			
Stay lifelong in the foreign country	44	34	22
Return to home country after a couple of years	7	39	54
Not mind moving to further countries of the European Union	10	45	44
Prefer migrating to the United States than to European Union	69	25	5
Prefer migrating to Australia/New Zealand than to the European Union	71	24	5
Prefer migrating to Switzerland than to the European Union	74	52	5
What potential issues might prevent you from migrating within/to the European Union?			
Language skills	49	31	21
Uncertainty	26	33	41
Family connection at home	19	27	55
Medical school diploma not recognized	45	22	33
Board certification not recognized	42	24	34

migrate within/to the European Union. Additional reasons included the prospect for a better academic environment (80%) and the availability of the latest technologies and infrastructure (78%). Furthermore, financial reasons had a major impact on the potential decisions: 70% considered leaving their home country for higher income. In addition, respondents indicated a better work–life balance (64%), social welfare (54%), unavailability of neurology training at home (5%), and poor career perspective in the native country (45%) as reasons for considering relocation.

Approximately half of the individuals (54%) would plan to return to their home country after a couple of years abroad, while 44% of the entire cohort would intend to move to another EU country, and 21% would consider lifelong relocation. Reasons discouraging young neurologists from cross-border relocation were manifold. A majority feared loss of family connection (55%), uncertain future prospects (41%), and issues related to lack of recognition of their medical school diploma or board certification. Language issues were considered less important for cross-border relocation (20%).

DISCUSSION Our survey explored the interests and motives of residents and young neurologists for cross-border relocation within and to member states of the European Union. The main finding was the attractiveness of and the strong interest in postgraduate training and employment within the European Union. As the major driving forces to depart one's home country, we identified dissatisfaction and superior prospects for clinical training, resources at work, academic environment, and remuneration abroad.

The continuing process of the European integration has offered new possibilities for medical doctors to improve their skills, and the mobility was fueled by the economic crisis in 2008. At the same time, we describe new aspects and reasons underlying the cross-border mobility phenomenon. The results of the survey highlight the interest of the upcoming generation of neurologists to relocate within/to the European Union and are in line with the current trend involving all health professional categories.^{1,2,5,6} Migration of health care professionals might be recognized as a symptom of considerable national problems in health care systems.^{1,3,7} Interestingly, previous studies speculate that discrepancies in salaries can only be regarded as one of the various motivations that have incentivized mobility of health professionals. Larger differences in infrastructure and in the use and availability of modern medical technology, as well as important career possibilities and social recognition, are indicated as factors underlying this trend.^{8,9}

There are 24 official languages in the European Union. Hence, we assessed whether language barriers play a role in the decision for a potential relocation.

Remarkably, only one-fifth considered language barriers as relevant for their decisions to relocate. This is also reflected by the rating of attractive candidate countries. In this regard, among the front runners were Sweden and Norway, where English is not the first language and language certificates have to be obtained prior to receiving a medical license. Thus, when it comes to cross-border relocation of medical doctors, efforts to learn a foreign language do not seem to be a major obstacle. The majority of young neurologists expressed their interest to consider relocation to and within the European Union. Should their expectations associated with cross-border relocation be fulfilled and the loss in manpower not compensated, the health care system might be considerably challenged in a number of countries. A shortage of doctors has already been noted in Ireland, Malta, Poland, and Hungary, but also in underserved remote areas throughout member states of the European Union.⁴ The positive effects of mobility in harmonization of European medical standards might be expected when mobility is temporary.^{7–9} However, a small fraction of respondents in this survey would consider the possibility of returning home. The negative implication of this trend is that long-term mobility causes loss of neurologists in low- and middle-income countries. This phenomenon potentially pauperizes the economic systems of these countries. Additional national and multinational efforts will be required to attract well-trained physicians who can introduce the latest technologies and treatments and work as educators to return to their home countries.^{8,9}

We recognize several biases and limitations of this pilot study. First, a selection bias is likely, as participants of an international neurology course may represent subjects who are internationally oriented and interested in improving clinical skills and patient care. Second, there was predominance of Eastern Europeans and those of lower socioeconomic background. The subsequent shortage of clinical resources and modest income needs to be taken into account. Third, as the majority was in training at academic institutions, it can be expected that such individuals have obtained more knowledge of disparities with regard to training and prospects. Eventually, among the limitations were that language abilities and previous experience with relocation were not assessed. In this context of general mobility involving health professionals, the migration of neurologists within the European regions is destined to become increasingly important. Thus, it is critical to take action to harmonize training curricula and working conditions in Europe in order to ensure neurology service and patient care. The EAYNT has recognized this upcoming dilemma and has taken action toward this trend, supporting the harmonization process in European neurology training. The efforts include support of the

European Board of Neurology examination, e-learning platforms,¹⁰ and awareness campaigns related to discrepancies in working conditions and training gaps.

AUTHOR CONTRIBUTIONS

Dr. Macerollo: study concept and design, data acquisition and analysis, manuscript authorship. Dr. Varga: study concept, data acquisition and analysis, manuscript revision. Dr. Struhal: study concept and design, data acquisition and analysis, manuscript authorship/revision. Dr. Györfi: data analysis, manuscript revision. Dr. Kobeleva: data analysis, manuscript revision. Dr. Sellner: study concept and design, data acquisition and analysis, manuscript revision.

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DISCLOSURE

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