

## NUMBERS OF EARLY CAREER PSYCHIATRISTS VARY MARKEDLY AMONG EUROPEAN COUNTRIES

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### SUMMARY

*In the field of psychiatry the decline of recruitment and brain-drain are currently one of the most discussed topics among stakeholders on national and European level. Even though comprehensive data on psychiatric training in Europe have been already reported, no data are available on even the approximate number of early career psychiatrists (ECPs). With this objective in mind, the Early Career Psychiatrists Committee of the European Psychiatric Association (EPAECPC) and the European Federation of Psychiatric Trainees (EFPT) have undertaken a survey. Based on the methodology used, the total number of ECPs in all European countries was 46 144 with the average number of ECPs being 5.5/100 000 country inhabitants. The actual numbers in this respect varied greatly among countries from 0.4 and 0.6 ECPs/100 000 in Azerbaijan resp. Russia; to 20.4 and 28.4 ECPs/100 000 in Norway resp. Switzerland. An obvious East-West gradient with increasing numbers of ECPs when moving from East to West, and from South to North were found, mirroring the economic strength of European countries. This is the first study to specifically explore the number of ECPs across Europe which might have key implications for planning and establishing recruitment activities and for developing strategies for prevention of brain-drain, such as improvement of educational system and enlargement of professional opportunities.*

**Key words:** psychiatry - early career psychiatrists – ECPs - Europe

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### INTRODUCTION

The professional life of psychiatrists might be divided in several phases, among which the transition period from psychiatric training to independent practice is one of the most important ones. This phase usually determines not only the choice of subspecialization but also the whole future career path in general, including possible migration on either professional or financial grounds (Riese et al. 2013). Psychiatrists who are in the first years of their professional career may be defined as early career psychiatrists (ECPs). This definition includes medical doctors who are trainees in psychiatry or specialists within five years from the completion of their psychiatric training (Giacco 2011).

Comprehensive data on psychiatric training in Europe, including the numbers of psychiatric trainees have been already reported (Kuzman et al. 2012), but no data is available on even an approximate number of ECPs from the reports of relevant national authorities for postgraduate training (e.g. country Ministries, National institutes of public health, etc.). Such data might enhance the harmonization of the policies and practices of training in psychiatry around Europe. Therefore two

bodies; Early Career Psychiatrists Committee of the European Psychiatric Association (EPA-ECPC) (Fiorillo et al. 2010) and European Federation of Psychiatric Trainees (EFPT) (Nawka et al. 2010) undertook a survey with the aim to determine the number of ECPs in the European countries.

### METHODS

Considering the difficulty of the task and the low availability of data on ECPs, the aim was to provide qualified estimates of the number of ECPs in European countries. In order to do so, a formula was proposed, based on two main inputs; 1) the number of trainees per country in the year 2011; and 2) the duration of psychiatric training in each country. The current number of young psychiatrists per country was calculated as: 5/the duration of the training in years x the number of trainees in 2011 + the number of trainees in 2011.

The underlying assumption was that the prevalence (the number of trainees in a given country at a specific time) and the incidence of trainees per country (the newly recruited trainees in one year) has not changed more than 10% in the last 5 years. To further ensure that

**Table 1.** Average number of ECPs per 100 000 inhabitants in European countries

ECPs per 100 000	Country
<2	Albania, Armenia, Azerbaijan, Russia, Ukraine
≥2-9≤	Belarus, Belgium, Bosnia and Herzegovina, Croatia, Czech Republic, Estonia, Finland, France, Italy, Israel, Latvia, Lithuania, Malta, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Sweden, Turkey
>9	Denmark, Germany, Greece, Ireland, Norway, Switzerland, United Kingdom
Data not available	Austria, Bulgaria, Cyprus, Georgia, Hungary, Macedonia, Moldova, Montenegro, Spain

The cut-off values were set arbitrarily with the intention to divide the countries in 3 groups (the two-thirds of countries being considered average and one-sixth below and one-sixth above the average)

this basic assumption was correct, country delegates (psychiatry trainees' representatives in the EFPT) were asked to provide their estimation whether the incidence and the prevalence of psychiatric trainees significantly changed in the last 5 years. If a more robust change was assumed or detected when comparing the number of trainees in each country in the last three years (2009, 2010 and 2011), then the most reliable source of information was used (Country reports 2012). Such changes have arisen in less than one-fourth of all the countries. Data on the actual numbers of psychiatric trainees were provided to the EPA-ECPC who did the analysis of the data.

## RESULTS

The total number of ECPs in 35 European (World Health Organization's definition of Europe) countries calculated with the above mentioned formula was 41 520 with the average number of ECPs being 5.5/100 000 country inhabitants. The actual numbers in this respect varied greatly among countries from 0.4 and 0.6 ECPs/100 000 in Azerbaijan resp. Russia; to 20.4 and 28.4 ECPs/100 000 in Norway resp. Switzerland. There were five countries where the average was under 2.0 ECPs/100 000; twenty-two countries reported average number of ECPs between 2.0 and 9.0/100 000; in seven countries the average number of ECPs per 100 000 was greater than 9.0 and for nine countries no reliable data have been provided for calculation (Table 1).

## DISCUSSION

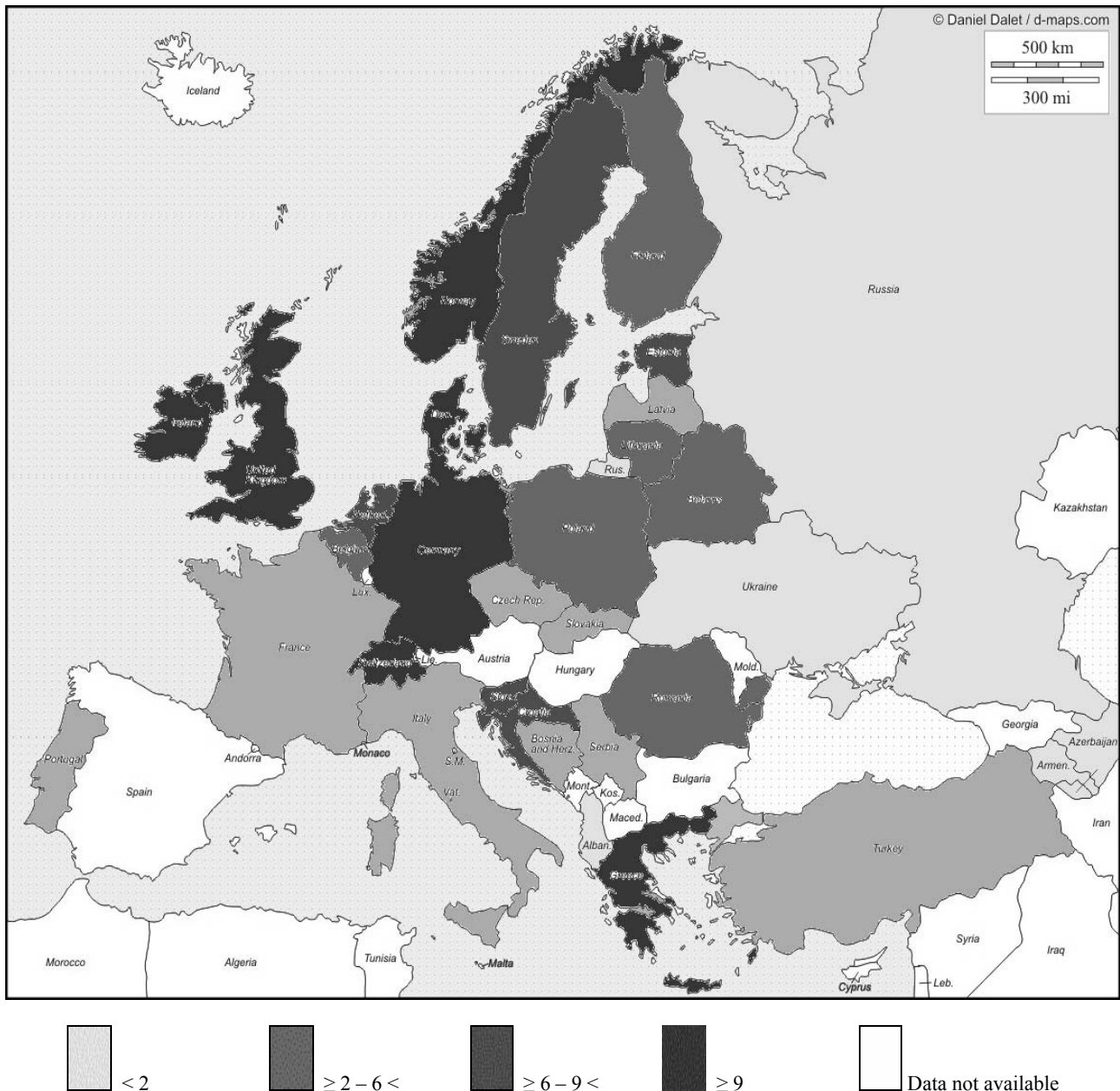
Interestingly there were several trends based on geographical grounds. There was an obvious East-West gradient with increasing numbers of ECPs when moving from East (e.g. Russia, Ukraine) to West (e.g. Ireland, United Kingdom) of Europe. Very similar gradient was traced when moving from South (e.g. Albania, Armenia) to North (e.g. Denmark, Norway) (Figure 1). Such trends are mirroring the economic strength of European countries when rated as GDP per capita (List of sovereign states in Europe, 2013) thus usually also the expenses in health sector, which obviously demands larger workforce, including psychiatrists.

Although for some countries the provided estimates did not come from official sources, but from local experts on training, the presented data were the most reliable which were available at the moment. We estimated the number of ECPs in nine countries that failed to provide the data (Austria, Bulgaria, Cyprus, Georgia, Hungary, Macedonia, Moldova, Montenegro, Spain), assuming that the number of ECPs/100 000 inhabitants was in line with the European average - 5.5/100 000. Therefore the total number of ECPs in Europe based on such calculations is 46 144 (Table 2).

The survey has some potential limitations to consider. It must be acknowledged that the calculations were in half the cases, based on delegates' estimates due to lack of official or more reliable sources. The data for some countries have proven to be entirely missing which was overcome by extrapolation. Moreover, although the numbers of trainees were followed for three consecutive years (2009, 2010 and 2011), the numbers of newly recruited trainees might change from one year to another substantially, as this process may be driven by country specific needs.

The second major limitation is that the number of ECPs is calculated solely by using number of trainees who are being trained in the particular country. What it is missing is the number of ECPs who have migrated into that country after their training abroad. West European countries are known to be the main recipients of immigrant physicians, including psychiatrists, from Eastern European countries (Ahmad 2005). Adding the "brain drain effect" to these calculations would definitely make the East-West and South-North gradients even more significant.

Despite these limitations, our study had its strengths as it included an extensive resources search, targeted a previously un-investigated, yet important topic, and conducted several levels of analyses. Furthermore, it is the first study to specifically explore the number of ECPs across Europe. Altogether, the survey suggests that the approximate number of ECPs in European countries lays somewhere between 40 000 and 50 000. Even though the European average number of ECPs appears to be sufficient (OECD 2011), data revealed vast geographical disparities.





































**Figure 1.** Average number of ECPs per 100 000 inhabitants in European countries

## CONCLUSION

This data might be therefore of interest to many stakeholders on national and European level who are closely monitoring the decline of recruitment of trainees into the field of psychiatry (Brown 2009). The access to the data has key implications for planning and establishing recruitment strategies focused on the pool of ECPs in a Europe-wide perspective and for planning specific educational activities based on the actual number of ECPs in respective country. Moreover improvement of prevention strategies and additional education of GPs on mental health problems would enable easier and more resourceful use of mental health system to patients in the countries with relatively low number of ECPs.

Some countries with higher numbers of ECPs may furthermore serve as inspiring examples with good recruitment strategies, although one might speculate whether these high numbers are actually not caused by “imported” psychiatrists rather than by those “raised” in the country (e.g. Ireland, UK). Thus on European level, the data on number of ECPs could provide significant background and starting point towards developing strategies for prevention of brain drain, such as improvement of educational system and enlargement of professional opportunities. To conclude, if the mental health care delivery across Europe should be harmonized so should be the numbers of psychiatrists including ECPs.

**Table 2.** Data on duration of training, calculated number of ECPs, country population and average number of ECPs per 100 000 inhabitants in European countries

Country	Duration of psychiatric training (Kuzman et al. 2012, Country reports 2012)	No. of psychiatric trainees (Country reports 2012)	Calculated No. of ECPs	Population in 2012 (Country comparison 2013)	ECPs/ 100 000 inhabitants
 Albania	4	8	18	3 227 000	0.6
 Armenia	2	11	39	3 109 000	1.3
 Azerbaijan	2	NA	34 (7)	9 421 000	0.4
 Belarus	1	65	390	9 527 000	4.1
 Belgium	5	235	470	10 788 000	4.4
 Bosnia and Herzegovina	4	45	101	3 744 000	2.7
 Croatia	4	130	293	4 387 000	6.7
 Czech Republic	5	180	360	10 566 000	3.4
 Denmark	5	270	540	5 593 000	9.7
 Estonia	5	40	80	1 340 000	6.0
 Finland	6	168	308	5 403 000	5.7
 France	4	934	2 101	63 458 000	3.3
 Germany	5	6 500	13 000	81 991 000	15.9
 Greece	5	750	1 500	11 419 000	13.1
 Ireland	6	250	458	4 579 000	10.0
 Italy	5	995	1 990	60 964 000	3.3
 Israel	4	210	473	7 695 000	6.1
 Latvia	4	22	50	2 235 000	2.2
 Lithuania	4	74	167	3 292 000	5.1
 Malta	5	10	20	419 000	4.8
 Netherlands	5	750	1 500	16 714 000	9.0
 Norway	5	507	1 014	4 960 000	20.4
 Poland	5	800	1 600	38 317 000	4.2
 Portugal	5	200	400	10 699 000	3.7
 Romania	5	500	1 000	21 388 000	4.7
 Russia	2	250	875	142 703 000	0.6
 Serbia	5	100	200	9 847 000	2.0
 Slovakia	5	90	180	5 480 000	3.3
 Slovenia	5	78	156	2 040 000	7.6
 Sweden	5	400	800	9 495 000	8.4
 Switzerland	6	1 200	2 200	7 734 000	28.4
 Turkey	5	1 200	2 400	74 509 000	3.2
 Ukraine	1.5	110	477	44 940 000	1.1
 United Kingdom	6	3500	6 417	62 798 000	10.2
Europe (35 countries with available data)		20 563	41 520	754 781 000	5.5
Europe (all countries)*		22 853	46 144	838 982 000	5.5

\*data extrapolated from the numbers of average number of ECPs per 100 000 in countries where data were provided  
 No data were available for these countries (population): Austria (8 429 000), Bulgaria (7 398 000), Cyprus (1 129 000), Georgia (4 304 000), Hungary (9 950 000), Macedonia (2 067 000), Moldova (3 519 000), Montenegro (633 000), Spain (46 772 000) [10].  
 Andorra, Iceland, Kosovo<sup>#</sup>, Lichtenstein, Luxemburg, Monaco, San Marino, Vatican were not included, as there are no psychiatric training curricula and psychiatrists are being trained elsewhere.

<sup>#</sup>This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ opinion on the Kosovo declaration of independence.

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**Conflict of interest:** None to declare.

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