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Working Paper

Romanian doctors on the move: The loss of a strategic resource in the context of the COVID-19 pandemic

EIR Working Papers Series, No. 39

Provided in Cooperation with:

European Institute of Romania, Bucharest

Suggested Citation: Prelipceanu, Raluca (2021) : Romanian doctors on the move: The loss of a strategic resource in the context of the COVID-19 pandemic, EIR Working Papers Series, No. 39, European Institute of Romania, Bucharest

This Version is available at:

<https://hdl.handle.net/10419/251189>

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Romanian doctors on the move: the loss of a strategic resource in the context of the COVID-19 pandemic



Raluca PRELIPCEANU

**Romanian doctors on the move: the loss of a strategic resource in the
context of the COVID-19 pandemic**

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Bucharest, July 2021

Working Paper Nr. 39

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ISSN online: 1841 - 4281

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Abstract: *This working paper investigates the migration of Romanian doctors, a worrisome phenomenon, especially due to its long-term effects for the health sector. It draws attention to the fact that, in the context of the COVID-19 pandemic, doctors became a strategic resource for which countries currently compete. The research highlights the main evolutions regarding the doctors' migration from Romania, analysing the period before the accession to European Union (EU) and the post-2007 situation. Equally important for this research are the following categories: native Romanian health specialists, doctors trained in Romanian universities (both the ones that decide to continue working for Romanian hospitals and the ones that leave after their studies/training period). Considering the impact observed for the three groups, we underline the lack of a retention strategy, that could match the needs of the national health sector with the individual professional expectations. Then, we investigate the main reasons for the exodus, based on several interviews conducted with Romanian doctors working in France. We conclude by presenting several measures that Romania aimed to implement to tackle the brain drain of Romanian doctors, and we suggest a series of policy recommendations.*

Keywords: *workforce migration, Romanian health system, student mobility, retention policy.*

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Introduction

Romania is hit significantly by the phenomenon of medical brain drain. This is becoming increasingly worrisome in the new global context, as the quality of the medical personnel became a strategic resource against the backdrop of the COVID-19 pandemic, in which each country needed to secure the health of its population first. This, in turn, created a competition among countries with respect to the development of a potential vaccine, a cure that could put an end to the coronavirus outbreak. In order to do so, highly-qualified personnel is a prerequisite. In the context of the COVID-19 crisis, the European Commission announced in April 2020 that doctors who want to work in other European Union (EU) Member States should have facilitated entry to those respective countries, thus encouraging their professional mobility. Most of the countries do not put barriers against the free circulation of doctors, in the greater context of the free movement of persons introduced by the Treaty of Maastricht. For example, Spain employed at the end of April 2020 around 400 foreign doctors. Italy passed a decree allowing foreign doctors to receive a temporary working licence in order to work on its national territory. The pandemic decree, known as *Cura Italia*, temporarily opened up public jobs to all foreign-born medical staff holding a work permit¹.

It is estimated that by 2015, Romania had lost half of its doctors². Due to migration, some Eastern European countries, such as Poland, Latvia, and Romania, had comparatively fewer doctors and nurses per population, and therefore a weaker capacity to respond to the pandemic³.

In this paper we proceed as follows: first, we present data related to the migration of doctors from Romania, which actually has two components: that of doctors born in Romania, and another one of doctors trained in Romania; then we make a short analysis of the state of the Romanian healthcare system. Further on, we present data from a field research done in France in August 2020 and March 2021, respectively, part of an ongoing research project. The field research is based on interviews done with Romanian doctors working in France. Doctors were required to answer questions about their age, study, place of origin, education, as well as their motivation for leaving Romania or their intention to ever return.

¹ Ylenia Gostoli, [Coronavirus: Short on doctors, Italy looks to migrants - InfoMigrants, Deutsche Well, 1 December 2020.](#)

² IOM World Migration Report Migration and migrants: Regional dimensions and developments, International Organization for Migration 2019.

³ Health at a Glance 2020, https://www.oecd.org/about/publishing/Corrigendum_Health-at-a-Glance-Europe-2020.pdf, OECD, European Union, 2020, p. 22.

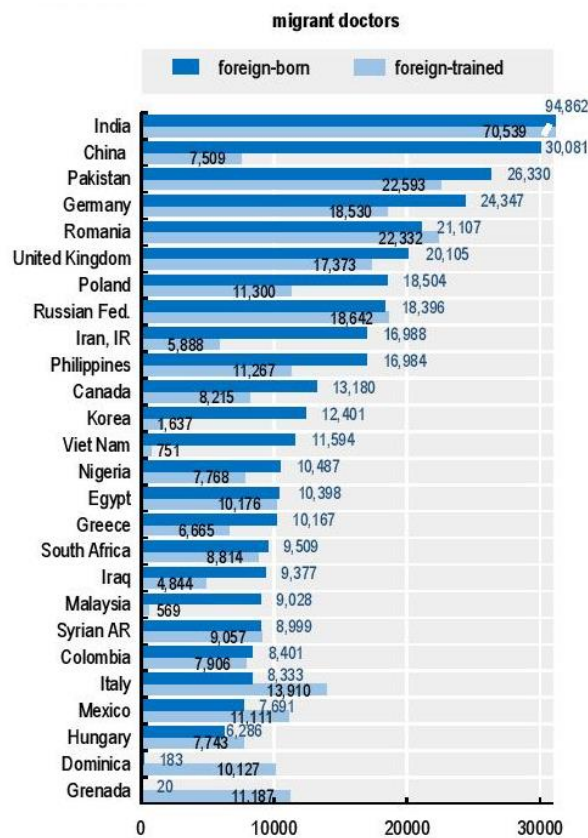
The migration of doctors from Romania: general background

According to the World Bank⁴, between 1991 and 2013 the outflow of doctors increased nine times, with the highest level being registered after the 2000s. The charts below reflect an increasing deficit of medical specialists in Romania. The deficit becomes obvious if we consider that between 2000 and 2013 the number of doctors working in Romania increased by only 18 percent, whereas the number of those working abroad increased by more than 650 percent. Globally, Romania stands on the fourth position in terms of country of origin of foreign-born doctors, after India, Pakistan, and Germany, with 21.107 doctors born in Romania who are working abroad; and third in terms of country of origin of foreign trained doctors, after India and Pakistan, with 22.332 doctors trained in Romania working abroad according to OECD statistics⁵. However, given its population, the migration of doctors from Romania is a indeed a very serious issue. Romania has the most important rate of doctors' migration among 188 countries, which is computed as the number of native-born doctors or doctors trained in Romania who migrate per total number of doctors. Other European countries with important rates of doctors migration are Slovakia, Estonia, Iceland, and Ireland.

⁴ Andrei Silviu Dospinescu and Giuseppe Russo, *Romania – Systematic Country Diagnostic: background note – migration* (English). Washington, D.C.: World Bank Group; 2018 <http://documents.worldbank.org/curated/en/210481530907970911/Romania-Systematic-Country-Diagnostic-background-note-migration>.

⁵ *Contribution of migrant doctors and nurses to tackling COVID-19 crisis in OECD countries*, OECD May 13, 2020, [Contribution of migrant doctors and nurses to tackling COVID-19 crisis in OECD countries - OECD \(oecd-ilibrary.org\)](https://www.oecd-ilibrary.org/publications/contribution-of-migrant-doctors-and-nurses-to-tackling-covid-19-crisis-in-oecd-countries).

Chart 1 Contribution of migrant doctors and nurses to tackling COVID-19 crisis in OECD countries.



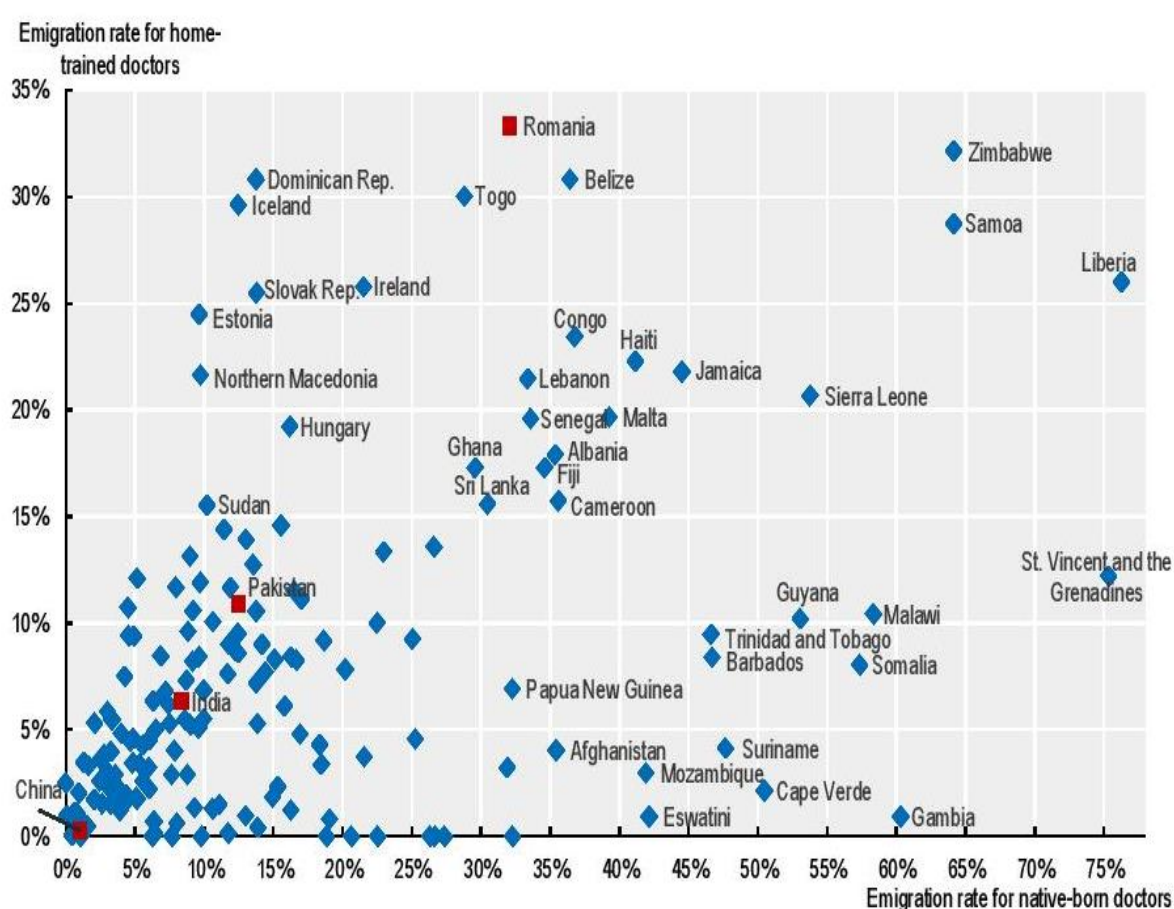
Source: OECD

Before Romania's EU accession in 2007, many Romanian doctors migrated to the United States (US), Canada, and France. However, after the EU accession European destinations replaced US and Canada, with large number of Romanian doctors heading to France, Belgium, Great Britain, Ireland, and Germany. This situation was most certainly linked to the free movement of persons between Member States. After 2012, Romanian doctors also headed to Northern countries like Sweden and Norway. Other destinations include the United Arab Emirates, Austria, Italy, and Spain. Belgium is the country where most of the doctors coming from other EU countries are from Romania, while in France a third of the foreign doctors are Romanians. While according to the World Bank⁶ only about 30 percent of the Romanian doctors working abroad were based in EU countries in 2000, their number increased

⁶ Andrei Silviu Dospinescu and Giuseppe Russo, *Romania – Systematic Country Diagnostic: background note – migration* (English). Washington, D.C.: World Bank Group; 2018 <http://documents.worldbank.org/curated/en/210481530907970911/Romania-Systematic-Country-Diagnostic-background-note-migration>.

greatly after Romania's EU accession, to about 53 percent in 2007 and 72 percent in 2013. It is estimated that 43.000 doctors departed from Romania after EU accession⁷. But other statistics consider this number to be an overestimation. According to the Romanian College of Physicians, 21.000 doctors left Romania between 1990 and 2015, out of which 14.100 left after the EU accession⁸. The number of doctors who left to work abroad between 2009 and 2015 stood at around 14.000, according to Viorel Huşanu, the president of the National Healthcare Union Sanitas⁹.

Chart 2 Contribution of migrant doctors and nurses to tackling COVID-19 crisis in OECD countries



Source: OECD

⁷ Shaun Walker, [Romanian hospitals in crisis as emigration takes its toll | Depopulation | The Guardian, April 21, 2021.](#)

⁸ Ioana Morariu, [Migrația medicală: un fenomen la care România este pe primele locuri din Europa - Viața Medicală \(viata-medicala.ro\)](#) (Medical migration : a phenomenon where Romania ranks among the first countries in Europe).

⁹ [INTERVIU/Președintele SANITAS București: Peste 14.000 de medici și 28.000 de asistenți medicali au plecat din România în perioada 2009-2015](#) (The president of Sanitas: over 14.000 doctors and 28.000 medical assistants left Romania between 2009 and 2015)

More than 50 percent of Romanian doctors working abroad are younger than forty, while a majority of applications submitted to the Romanian Medical Association come from resident doctors¹⁰. Between 2007 and 2012, the percentage of doctors younger than 40 decreased from 69% to 52,1%, whereas the percentage of doctors over 65 increased from 4,4% to 13,9%. Some of the doctors choose to leave the country after they take an early retreat. Out of the 13.521 doctors working in Romania in 2014, only 3% were under 30. **Table no. 1** proves that after EU accession the number of Romanian doctors choosing to work abroad doubled.

¹⁰ Andrei Silviu Dospinescu and Giuseppe Russo, *Romania – Systematic Country Diagnostic: background note – migration* (English). Washington, D.C.: World Bank Group; 2018 <http://documents.worldbank.org/curated/en/210481530907970911/Romania-Systematic-Country-Diagnostic-background-note-migration>.

Table 1 Number of doctors who left Romania by speciality.

Specialty	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
General/Family Medicine	700	866	1035	893	757	974	350	226	232	6033
General surgery	208	157	101	100	97	112	80	69	56	980
ATI	158	140	97	98	93	92	63	53	72	866
Obstretic gynecology	135	132	85	98	76	74	79	60	63	802
Pediatrics	90	112	89	70	58	59	52	38	33	601
Radiology	78	88	85	50	59	70	46	41	39	556
Psychiatry	78	71	58	94	55	58	48	34	28	524
Orthopedics	91	77	69	58	49	32	44	50	27	497
Ophthalmology	71	66	59	49	52	46	56	40	45	484
Cardiology	70	75	41	39	44	39	42	35	36	421
Neurology	40	51	43	38	32	27	31	22	25	309
Dermatology	41	48	25	27	28	37	29	25	24	284
Plastic surgery	26	21	26	27	38	30	39	30	22	259
Urology	28	34	20	22	14	23	19	10	19	189
Vascular surgery	35	29	27	12	14	16	19	10	11	173
Neurosurgery	39	23	12	19	17	20	10	10	11	161
Other specialists	991	992	589	501	441	560	455	373	275	5177

Source: Romanian College of Physicians

Romania: overall conditions

The demographic evolution of Romania should be of great concern for the Romanian government as the ageing population is constantly increasing. However, the number of people over 65 is lower than the EU average. In 2019, this number stood at 17,8 % in Romania, in comparison with the EU average of 19,4%, as shown by the Eurostat data. This is due both to the importance of the out-migration flows and to the death rate which was more important than the nativity rate.

Furthermore, a small group of countries – Malta, Romania, Bulgaria, and the Slovak Republic – still have infant mortality rates of 5 deaths per 1.000 live births or more¹¹. According to the Romanian National Institute of Statistics¹², Romania lost more than 120.000 people in 2017, mainly due to the natural decline, as the number of deaths exceeded the number of live births by 71.125 people. The second reason is migration. The balance of international migration in 2017 was negative, with the number of emigrants exceeding the number of immigrants by over 53.000 people.

Life expectancy in Romania is low in comparison with the EU average. Although during 2010-2019 life expectancy increased from 71,2 years to 75,45 years, it is still one of the lowest in the EU, the European average being 80,95, according to Eurostat data. There is also an important gender disparity in terms of life expectancy; men live 71,7 years on average, compared to women, with an average of 79,2 years. Whereas the average disparity in the EU stands at 5,5 years, in Romania the gap is 7,5 years¹³. There is also an important disparity linked to the level of education. Highly-educated women live on average 3,8 years more than low-educated women, however the disparity stands under the EU average which is 4,1 years¹⁴. Of higher importance is the disparity between the highly-educated and the low-educated men. The former live, on average, almost ten years longer than the latter. The EU average is 7,6 years higher life expectancy for the highly-educated men, compared to low-educated ones. Death rates are the highest among EU countries. The only country with a higher death rate in 2020 was Bulgaria. The death rate has been constantly increasing starting with 2014 following five years decrease. The main reasons for dying are heart diseases, strokes, and cancer.

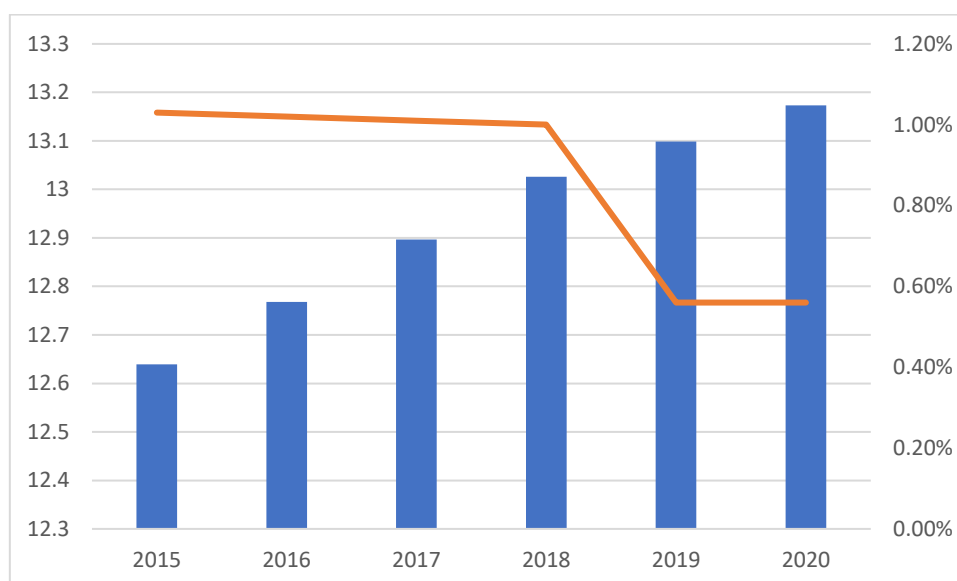
¹¹ *Health at a Glance 2020*, p. 124

¹² Irina Marica [Romania's population keeps shrinking in 2017 due to demographic decline and migration | Romania Insider \(romania-insider.com\)](https://romania-insider.com/romania-population-keeps-shrinking-in-2017-due-to-demographic-decline-and-migration/), August 29, 2018.

¹³ *Health at a Glance 2020*, pp. 116-117

¹⁴ *State of Health in the EU. Romania country profile 2019*, OECD and the European Commission. [f345b1db-en.pdf \(oecd-ilibrary.org\)](https://oecd-ilibrary.org/publications/f345b1db-en), p. 3-5

Chart 3 Evolution of the death rates in Romania (2015-2020)

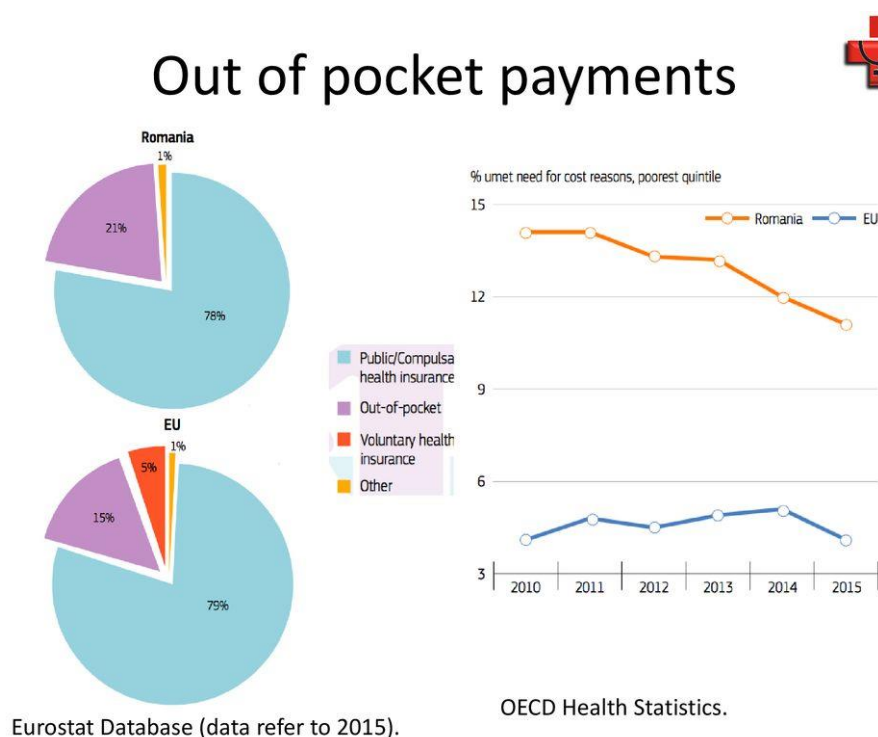


Source: [Romania Death Rate 1950-2021 / MacroTrends](#), thousand persons and rates.

As the report *State of Health in the EU. Country profile Romania*¹⁵ points out, health expenses per capita stood at 1.029 EUR in 2018, which is the lowest level of all EU countries, the EU average being 2.884 EUR. Romania constantly had the lowest health expenses *per capita* of all EU countries. Also, as part of the GDP, health expenses in Romania are the lowest among EU countries, representing just 5%, whereas the EU average was almost double, at 9,8% of GDP. Furthermore, 11% of the population does not have a health insurance. The amount of out-of-the pocket money paid for medical services was still very high in 2018.

¹⁵ *State of Health in the EU. Romania country profile 2019*, OECD and the European Commission. [f345b1db-en.pdf \(oecd-ilibrary.org\)](#), p. 9

Chart 4 Out of pocket payments (EU compared to Romania, 2010-2015)

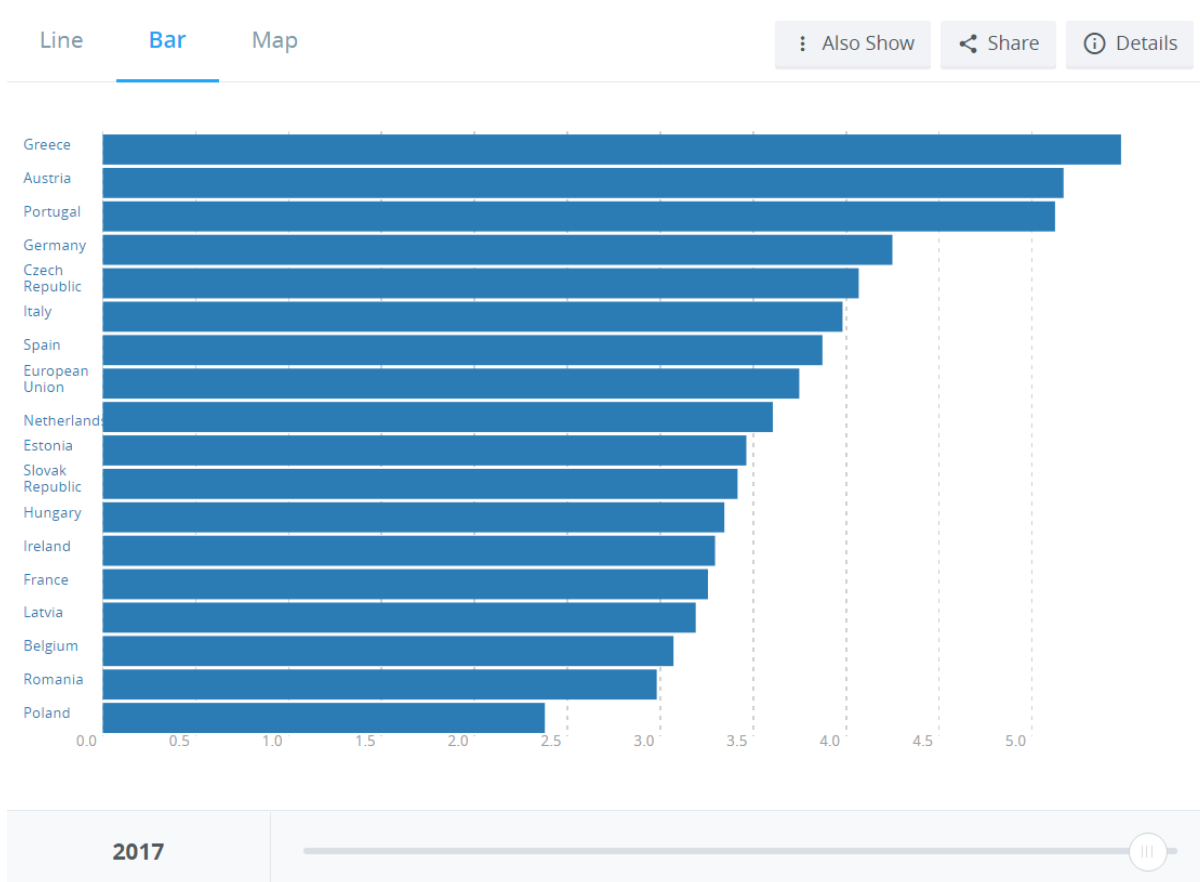


Source: Eurostat

Also, in terms of number of doctors for 100.000 inhabitants, in Romania there were 2,9 doctors for 100.000 inhabitants in 2017¹⁶, a number which is lower than the European average, which stands at 3,6 doctors for 100.000 inhabitants. Lower rates exist only in Poland and the United Kingdom (UK), which have 2,6 doctors for 100.000 inhabitants. The number of general practitioners (GP) is constantly diminishing as compared to specialized doctors. GPs represent about a third of the doctors in Romania, which is in line with the evolution of the number of GPs in the EU as a whole, where they represent about 30%. Doctors are the most important highly-skilled professionals that have left Romania.

¹⁶ *State of Health in the EU. Romania country profile 2019*, OECD and the European Commission. [f345b1db-en.pdf \(oecd-ilibrary.org\)](https://www.oecd-ilibrary.org/health/state-of-health-in-the-eu/romania-country-profile-2019/f345b1db-en.pdf), pp. 18-19

Chart 5 The number of GPs by 10.000 inhabitants in European Countries



Source: World Bank database¹⁷.

The distribution of doctors is unequal in Romania. In the Western region of the country and in Bucharest, the number of doctors per 100.000 inhabitants is greater than 3, whereas in the regions of North-East, South-East, and South there were less than 2,7 doctors per 100.000 inhabitants¹⁸.

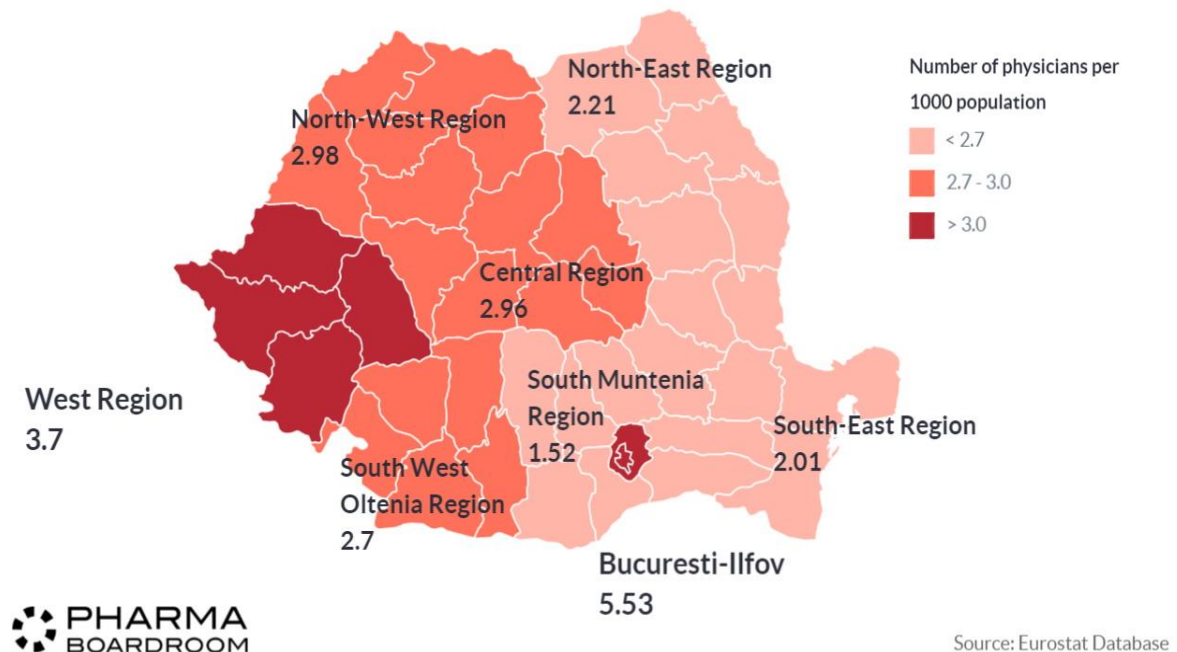
¹⁷ [Physicians \(per 1,000 people\) - European Union, Belgium, Austria, Bulgaria, Denmark, Czech Republic, Ireland, Hungary, Latvia, Italy, France, Netherlands, Estonia, Germany, Slovak Republic, Malta, Portugal, Poland, Spain, Sweden, Romania, Greece | Data \(worldbank.org\)](#).

¹⁸ *State of Health in the EU. Romania country profile 2019*, OECD and the European Commission. [f345b1db-en.pdf \(oecd-ilibrary.org\)](#).

Map 1 Distribution of healthcare professionals in Romania

Healthcare Professionals

The uneven distribution of healthcare professionals in Romania exacerbates access issues.

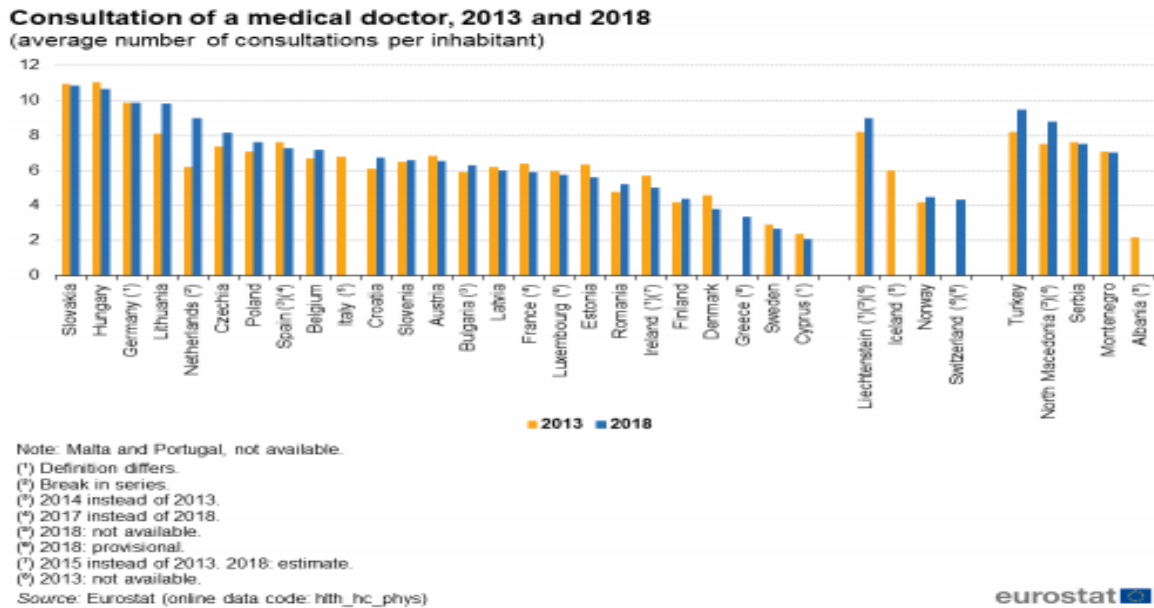


Source: Eurostat

Romania also has one of the lowest rates of annual visits to doctors by inhabitant, with 5,2 on average in 2017. Slovakia has the highest number with 10,9 visits, which is more than double¹⁹. The countries with lower numbers are Ireland, Finland, Denmark, Greece, and Cyprus.

¹⁹ Eurostat, [Healthcare activities statistics - consultations - Statistics Explained \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1), Data extracted in August 2020.

Chart 6 Average number of consultations per inhabitant, 2013 and 2018

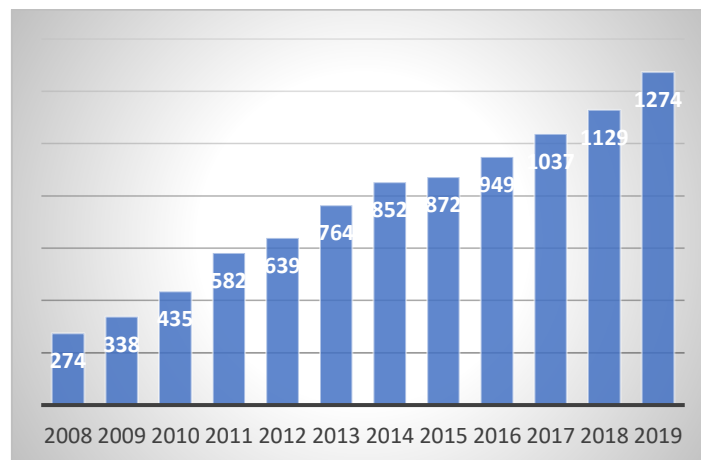


Source: Eurostat

Romanian doctors across Europe

The number of doctors trained in Romania who moved to the UK increased from 274 in 2008 to 1274 in 2019, which represents 4,65 times increase. In terms of inflow of doctors trained in Romania to the UK, the number increased from 38 in 2007 to 285 in 2019, representing a 7,5-fold increase, but the peak was reached a year earlier, in 2019, when 295 doctors trained in Romania migrated to the UK.

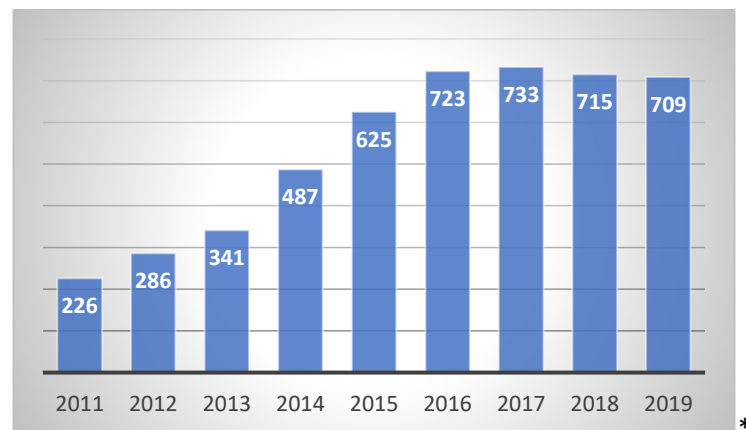
Chart 7 Number of Romanian doctors in the UK



Source: author's own computations using OECD database

The number of doctors trained in Romania who live in Ireland increased from 226 in 2011 to 769 in 2019.

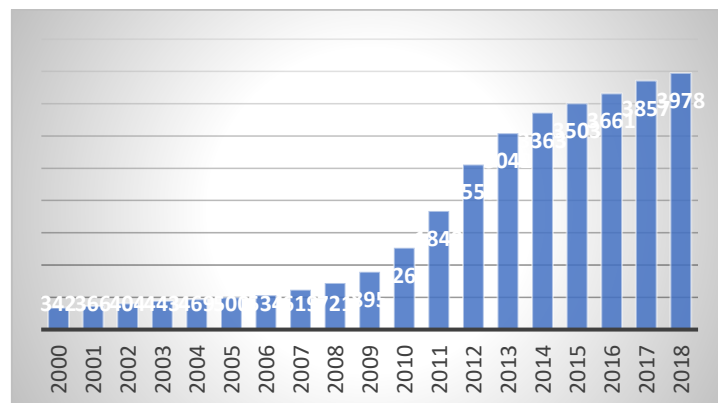
Chart 8 Number of Romanian doctors in Ireland



Source: author's own computations using OECD database.

The number of doctors trained in Romania who work in Germany increased from 342 in 2000 to 3,978 in 2019. In terms of annual inflows the number of doctors trained in Romania increased from 54 in 2007 to 178 in 2019. The peak was reached in 2012 when 579 doctors trained in Romania entered Germany. Among the EU countries, Germany has the most important community of doctors originating from Romania. Almost a fifth of the Romanian doctors who live and work abroad are based in Germany.

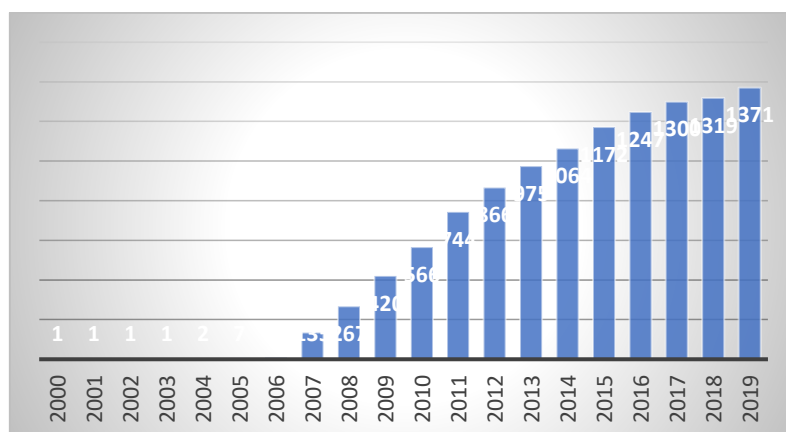
Chart 9 Number of Romanian doctors in Germany



Source: author's own computations, OECD database.

The number of doctors trained in Romania who work in Belgium increased from 1 in 2000 to 1371 in 2019. The increase started to be significant after 2007, after Romania's EU accession, when the number passed from nine doctors in 2006 to 135 in 2007. Ever since, the number of doctors trained in Romania working in Belgium showed a steady increase by more than a hundred doctors per year.

Chart 10 Number of Romanian doctors in Belgium



Source: author's own computations, OECD database.

The migration of doctors to France did not follow the same patterns. It increased significantly immediately after the EU accession, but, starting with 2011, the numbers began to decrease. In terms of annual inflows, the number of doctors trained in Romania who migrated to France stood at 457 in 2011 and decreased to 257 in 2018 following a steady decrease. The number of Romanian doctors registered by the CNOM increased sharply in the years following Romania's accession to the EU, rising from 158 on 1st January 2007 to 1160 on 1st January 2009. The increase continued, thus in 2013, as 3510 Romanian doctors were registered in France. At the end of 2016, the number of Romanian doctors working in France was estimated by Gheorghe Borcean, the former president of the Romanian Medical College, at around 4.000²⁰. In 2018, their number stood at 4.800 which makes the community of Romanian doctors in France the largest community of Romanian doctors in the EU²¹. According to a study, the

²⁰ Elvira Gheorghită, [Președintele Colegiului Medicilor din România:...](#) | News.ro November 4, 2016 (President of Romanian College of Medics...).

²¹ OECD quoted in Atilla Szoo, [More than 10,000 doctors from Romania relocated \(transylvanianow.com\)](#), 26.08.2020.

highest numbers of Romanian specialists in France are in the ranks of anaesthetists and radiologists²².

However, the important migration of doctors did affect Romania's capacity to respond to the 2019 pandemics. During the first phase the pandemic did not reach the same peak in terms of number of cases and mortality as in Western and Northern Europe. But, starting with August 2020 the situation has deteriorate in countries such as the Czech Republic and Romania, becoming a real burden for the medical personnel due to the limited capacity. In response to the pressure put on hospitals, several governments have implemented policies to boost surge capacity. For example, in Estonia, France, Hungary, Italy, Romania, Slovenia and Spain the military helped create field hospitals.

Main reasons to leave: a case study on the Romanian doctors working in France

Because of low wages, especially for resident doctors, working conditions, and the availability of equipment and supplies in the medical system – to name only some of the main reasons – Romanian doctors are choosing to leave the country to work abroad. Also, a growing number of young doctors are choosing to finish their residency abroad. This is reflected in the increased shortage of doctors in Romanian hospitals. The number of doctors working abroad in EU countries almost tripled in a span of seven years, from 2007 to 2013.

The most important reason for which doctors fled Romania until 2016 seems to have been their low income. In 2015, the net monthly wage of a first-year resident doctor stood at EUR 260 (RON 1.170). In 2016 the monthly salary of a first-year resident doctor was increased at EUR 427 (RON 1.922). The wage of a senior doctor stood at EUR 774, while that of a senior emergency doctor at EUR 1.078 per month²³.

After 2016, however, governmental measures were adopted and the wages of doctors rose significantly, by almost 150%. The salary of a resident working in a hospital stood in 2020 between RON 5.700 – 7.900 (EUR 1.180 – 1.630), while a medical specialist's pay was RON 12.500 (EUR 2.580)²⁴. By comparison, in France, a foreign doctor after five years of practice in the country, considering also other indemnities besides the wage could earn over 5.000 euros per month.

²² Raymonde Séchet, Despina Vasilescu, *Physicians' migration from Romania to France: a brain drain into Europe?*. *Cybergeo: Revue européenne de géographie / European journal of Geography*, UMR 8504 Géographie-cités, 2015, pp.743.

²³ [Romania's brain drain: Half of Romania's doctors left the country between 2009 and 2015 | Romania Insider \(romania-insider.com\)](https://romania-insider.com/romanias-brain-drain-half-of-romanias-doctors-left-the-country-between-2009-and-2015/) 06 March 2017.

²⁴ [More than 10,000 doctors from Romania relocated \(transylvanianow.com\)](https://transylvanianow.com/more-than-10000-doctors-from-romania-relocated/).

This is true if we compare the average wages in other destinations of Romanian health specialists²⁵. The European country with the highest wages for doctors is Luxemburg, where doctors earn on average around 216.885 euros per year or an equivalent hourly rate of 104 euros. In addition, they earn an average bonus of 8.936 euros. An entry level medical doctor (1-3 years of experience) earns an average salary of 146.506 euros, while a senior level medical doctor (8+ years of experience) earns an average salary of 280.657 euros.

The average medical doctor's gross salary in United Kingdom is £128.038 or an equivalent hourly rate of £62, which is approximately 149.804 euros yearly. In addition, they earn an average bonus of £5.275. An entry level medical doctor (1-3 years of experience) earns an average salary of £86.490, whereas a senior level medical doctor (8+ years of experience) earns an average salary of £165.686.

The average medical doctor's gross salary in Belgium is 151.631 euros or an equivalent hourly rate of 73 euros. In addition, they earn an average bonus of 6.247 euros. An entry level medical doctor (1-3 years of experience) earns an average salary of 102.275 euros, while a senior level medical doctor (8+ years of experience) earns an average salary of 195.924 euros.

The average medical doctor's gross salary in Germany is 146.912 euros or an equivalent hourly rate of 71 euros. In addition, they earn an average bonus of 6.053 euros. An entry level medical doctor (1-3 years of experience) earns an average salary of 99.239 euros, while a senior level medical doctor (8+ years of experience) earns an average salary of 190.109 euros.

In the Netherlands, the average medical doctor's gross salary is euros 145.585 or an equivalent hourly rate of euros 70. In addition, they earn an average bonus of euros 5.998. An entry level medical doctor (1-3 years of experience) earns an average salary of euros 98.286, whereas a senior medical doctor (8+ years of experience) earns an average salary of euros 188.282.

The average medical doctor gross salary in France is 132.754 euros or an equivalent hourly rate of 64 euros. In addition, they earn an average bonus of 5.469 euros. An entry level medical doctor (1-3 years of experience) earns an average salary of 89.624 euros, while a senior level medical doctor (8+ years of experience) earns an average salary of 171.689 euros.

In comparison to Europe, in USA the average medical doctor's gross salary is \$241.271 or an equivalent hourly rate of \$116, which is approximately 199.398 euros yearly. In addition, they earn an average bonus of \$9.940. An entry level medical doctor (1-3 years of experience)

²⁵ The data come from the website [Medical Doctor Salaries by Country - SalaryExpert](#), which is regularly updated. The last update was made in June 2021. The data is based on country surveys.

earns an average salary of \$162.979. On the other end, a senior level medical doctor (8+ years of experience) earns an average salary of \$312.212.

Another reason seems to be the poor quality of medical equipment in Romania. Indeed, Romania has a very small number of computer tomographs with respect to other EU countries and IRM and PET scanners and they are not very often employed according to EUROSTAT statistics²⁶.

Chart 11 Usage of imaging equipment in EU health systems, 2018

Use of imaging equipment, 2018

	Computed tomography (CT) scanners	Magnetic resonance imaging (MRI) units	PET scanners	Computed tomography (CT) scanners	Magnetic resonance imaging (MRI) units	PET scanners	Computed tomography (CT) scanners	Magnetic resonance imaging (MRI) units	PET scanners
	(number of scans)	(number of scans)	(number of scans)	(number of scans per 100 000 inhabitants)	(number of scans per 100 000 inhabitants)	(number of scans per 100 000 inhabitants)	(number of scans per machine)	(number of scans per machine)	(number of scans per machine)
Belgium	2 307 172	1 090 132	104 926	20 190	9 540	918	8 451	8 195	3 498
Bulgaria	524 078	87 724	17 075	7 460	1 249	243	1 920	1 202	2 134
Czechia	1 178 430	581 713	55 799	11 086	5 472	525	6 891	5 288	3 282
Denmark	1 069 713	516 188	59 344	18 464	8 910	1 024	4 651		1 290
Germany (*)	12 662 959	12 334 374	146 200	15 320	14 922	176	4 361	4 299	288
Estonia	176 498	66 548	1 462	13 351	5 034	111	7 060	3 697	487
Ireland									
Greece	2 295 689	894 935	25 004	21 389	8 338	233	5 265	2 641	1 923
Spain	5 558 113	4 323 169	193 869	11 877	9 238	419	6 210	5 370	2 332
France	13 106 629	8 005 980	606 770	19 572	11 955	906	11 070	8 095	3 890
Croatia	415 270	207 233	9 800	10 151	5 066	240	5 191	4 063	1 960
Italy	5 655 395	4 453 226	337 519	9 360	7 370	559	2 665	2 565	1 607
Cyprus	130 763	4 960	0	15 029	570	0	4 509	276	0
Latvia	348 355	124 517		18 076	6 461		4 708	4 789	
Lithuania	319 865	161 071	1 805	11 417	5 749	64	4 704	4 602	903
Luxembourg	119 261	45 314	3 016	19 617	7 454	496	11 926	6 473	3 016
Hungary	1 287 715	443 741	18 884	13 173	4 539	193	13 997	9 245	2 098
Malta	47 131	27 264	1 914	9 725	5 626	395	5 237	5 453	957
Netherlands	1 633 883	898 653	111 242	9 482	5 215	646	6 669	3 994	1 373
Austria	1 622 759	1 249 968	42 755	18 356	14 139	484	6 364	6 009	1 781
Poland	3 243 404	1 414 169	61 481	8 541	3 724	162	4 707	4 040	1 863
Portugal (*)	2 107 363	495 337	16 015	20 492	4 817	156	7 748	5 270	2 002
Romania (*)	539 358	213 408	6 243	2 738	1 083	32	2 166	1 840	780
Slovenia	157 661	144 631	411	7 602	6 974	20	4 778	5 785	137
Slovakia	845 085	378 650	12 286	15 515	6 952	226	8 451	7 282	1 536
Finland	317 115	273 257	5 004	5 750	4 954	91	3 485	1 810	334
Sweden									
United Kingdom (*)	6 724 514	4 443 498	210 461	10 118	6 686	317			
Iceland	80 164	36 244		22 727	10 276		4 716	5 178	
Liechtenstein	1 571	3 450	0	4 108	9 021	0	1 571	3 450	
Switzerland (*)	970 164	662 580	50 382	11 394	7 782	592	4 471	3 201	1 574
North Macedonia	66 581	22 409	1 110	3 207	1 079	53			
Serbia	361 867	92 837	3 205	5 182	1 330	46	4 639	3 438	1 603
Turkey	18 321 984		298 656	22 507		367	15 130		2 280

(*) Computed tomography scanners and magnetic resonance imaging units: 2017; estimates. Number of scans per PET scanner: 2017; hospitals only.

(*) Hospitals only.

(*) Computed tomography scanners and magnetic resonance imaging units: 2016.

Source: Eurostat (online data codes: hlth_co_exam and hlth_rs equip)

Source: Eurostat

²⁶ [Healthcare resource statistics - technical resources and medical technology - Statistics Explained \(europa.eu\).](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&code=hlth_co_exam)

Individual motivations for leaving Romania. Short conclusions of the research interviews.

Several case-studies

Monica Raluca P., aged 35, is a radiologist born in Oradea. She studied in Timișoara and left Romania for France seven years ago during her residency, disappointed with the lack of logistics and the fact that senior doctors were unwilling to teach younger ones for fear that the latter would steal their jobs. Also, her wage stood at only 950 RON ten years ago. She had already been in France with an Erasmus scholarship in 2008-2009, so it was easier to go back there. Her main reasons were to learn, as well as to earn better. The greatest impediment was the language. She does not wish to go back because in Romania she should have to pass other exams to prove she is competent. In France, a doctor is considered so automatically once he becomes a specialist.

Adriana H. is a GP, but currently she is working for an association dealing with addictions. She comes from Satu Mare, but she studied in Cluj. She came to France in 2005 under the influence of one of her friends also a doctor who had come to France before her. She had an ideal vision regarding the Western world so she chose to come to France. In France, she specialised in addictions. Between 2007 and 2010 she went back to Cluj in order to finish her residency and returned afterwards in France. She is thinking about returning to Romania for personal and family reasons, but in Romania she would not be able to work in addictions because only psychiatrists can treat addictions.

Silviu B. is a radiologist. He comes from Suceava, but he studied in Cluj. He went first to Brussels in 2006 with a scholarship, but after a year he returned because he was home sick. He stayed for two months in Romania and then left again for France this time. He said that in Romania networks were very important, if your parents are doctors or you know other doctors you have a lot more chances to succeed in your career. He was also disappointed with the logistics and the wages. He has no intention to go back to Romania except for short visits to his family.

Marius M. is a radiotherapist coming from Cluj where he also studied. He came to France in 2001 for an internship at the „Gustave Roussy” Institute – the best radiotherapy institute in Europe. He was offered a job in France and he decided to stay on because the logistics was far better in France. He is currently working at the Institut Curie and has no intention to return to Romania, as he got married and his life and that of his family are now in France.

Ștefan C. is an internist. He comes from Bucharest. He first came to France in 2003 for a two-year internship. Afterwards he returned for another two years to Romania as a resident. He received a proposal to work in Antibes in France which he accepted due to low wages in Romania. Later he transferred to Paris where he worked at Lariboisière hospital. Six years ago, he moved to Nice and is now working in Monaco. He got married. His wife is also Romanian and a doctor. She is paediatrician and she studied in Iași. Together they have five children, and they might return to Romania in order to be able to spend more time with their children.

Elena P. is head of department at the hospital in Bobigny. She came to France in 2012. At the time she had already finished her studies and completed the residency. She was sure she would have better career opportunities in France. At first it was difficult because she worked in a rural area and she was more accustomed to life in big cities. After she moved to the city life was easier. She considers that in France she learnt a lot of things at the professional level and that she earns a lot more money. However, she might return to Romania when she takes her retreat.

Roxana M. is an internist working in Mulhouse. She is from Bucharest. She came to France in 2009, during her residency. She left Romania in order to get better training. She worked first in Normandy. Later, she moved to Paris. She got married and her husband is also Romanian. Together they have four children. She went back to Romania in 2015 and she worked there for two years. She later came back to France in order to continue her training. She intends to go back to Romania with her family.

Anda M. comes from Bacău. She is specialised in labour medicine. She had studied in Bucharest, where she also practiced. She first left after her residency to Chile where she worked at the airport in Santiago de Chile for four years. Afterwards, she returned to Romania where she worked at the Direction of Public Health and then went to work in the private system. She came to Paris in 2009. She left because the wages were very low and at times she felt humiliated by the system and by the patients. Perhaps she will return to Romania when she takes her retreat. It all depends on how things will evolve in what concerns the wages and the respect paid to doctors.

Anca Larisa P. is a radiologist from Iași. She is currently working in Paris where she came at the end of 2019. After her residency, she worked for a year in Romania and then left for France for family reasons. She got married with someone who was working in France. She does want to return to Romania with her family, but only when she will feel that she can be useful in Romania.

Andreea V. is from Băileşti nearby Craiova, but she studied in Cluj. She first came to France for a six-month internship in 2009 during her residency. She returned to France after her residency in 2011 to work in Paris. She left because she wanted to learn things that she felt she could not learn in Romania and she wanted to earn better in order to lead a decent life and also because many of her colleagues left to learn and work abroad and she feared that compared to them later on she would lack experience and would not be competitive anymore if she stayed. Maybe she will return in the future, but this option depends on her personal life.

Romania as a training country for doctors worldwide

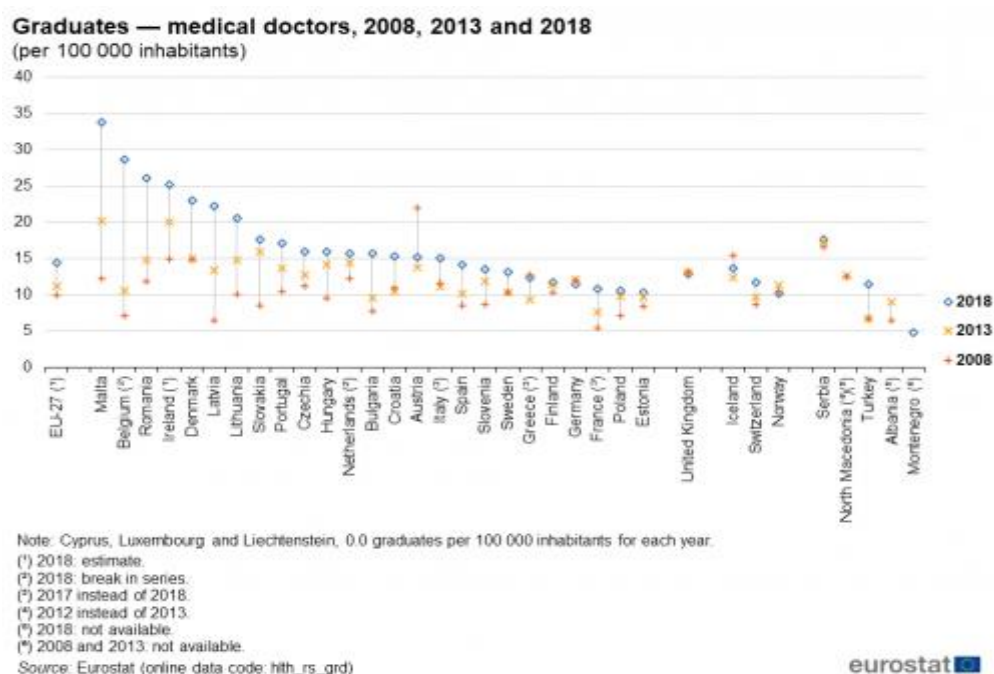
The 2019 OECD report on migration *Recent Trends in the Migration of Doctors, Nurses and Medical Students*²⁷ addresses the role of Romanian medical schools in preparing doctors worldwide and describes the migration of medical students to Romanian schools. It also highlights the lack of a retention strategy in Romania. A third of the students in medical schools in Romania are foreigners. Some of the Romanian universities met the international demand for medical education by creating special English and French programmes. However, there is no strategy at the level of the whole country. The strategies applied so far are part of the universities' politics.²⁸

The average cost of the medical studies in Romania stood at 2.850 dollars in 2018-2019, the lowest among the countries in the study. The money was used partly to grant scholarships to the best international students and partly to improve the quality of the studies offered by the universities. At the University of Cluj-Napoca, about 20% of the foreign students received scholarships allowing them to cover the cost of the fee.

²⁷ *Recent Trends in the Migration of Doctors, Nurses and Medical Students*, OECD 2019, July 25, 2019.

²⁸ *Recent Trends in the Migration of Doctors, Nurses and Medical Students*, OECD 2019, July 25, 2019.

Chart 12 Graduates of medical schools in EU27 in 2008, 2013, and 2018 (per 100.000 inhabitants)



Source: Eurostat

Romania has 11 public and two private medical schools. They produced 22.2 medical graduates per 100.000 population in 2016 – a greater number than in nearly all OECD and EU countries, and higher than the OECD average of 12.5. The number represents an important increase since 2006, when it stood at around 16. Romania ranks third in the EU after Ireland (24.4) and Malta (22.6), countries which have fewer inhabitants. In order to respond to the international demand, ten of the 13 medical schools in Romania offered long-cycle programmes in English, and four also offered programmes in French, along with the main programme in Romanian. It is estimated that the total annual number of places for new medical students increased by nearly a fifth between 2011/2012 and 2018/2019 (from 5.250 to 6.121), whereas the capacity in foreign-language programmes increased by 75%.

In the past, the Romanian medical schools attracted international students mainly from non-EU countries, such as the Republic of Moldova. However, the last years have seen an increasing number of students from the EU and OECD countries – like France, Germany, Israel, and Sweden.

In 2016, doctors from India, Pakistan, Nigeria, and Sudan who were completing their postgraduate education in Ireland stood for 28% of the doctors that were completing their education. 22% of the doctors doing their postgraduate studies in Ireland had studied either in Bulgaria or Romania. Also, half of the Nigerian doctors had studied in Hungary, Poland, or Romania (15%). Out of the 9.606 doctors working in Ireland in 2017, 8% had studied in Romania, a total of 733 persons. Their number had tripled with respect to 2011. In 2015, there were 128 junior Romanian doctors in Ireland out of which 71% had not completed yet their residency.

In 2017, in the UK, almost 2% of the doctors educated abroad came from Romania, at 1.087, a growing number with respect to a year earlier when there were registered 994 doctors trained in Romania on the UK territory. In 2016, there were 2.455 doctors trained in Romania in the USA²⁹.

At the same time, Romania was the third country of destination for Swedish medical students, as 9% of them chose to study in Romania³⁰. However, information available on Swedish students shows that the number is decreasing, from 325 in 2015-16 to 222 in 2017-18³¹.

In 2017, in France among all medical graduates of international universities attending the exam for entry to postgraduate training, the most numerous group consisted of French nationals (133 of 328), the majority of whom (110) had obtained their first medical degree in Romania³². In 2017-2018, 8% of the medical students came from Romania, which means 920 students. As a whole, 29% of the foreign medical students in France come from other EU countries. Romanian students come first amid students from other EU countries studying in France. Their number increased by 3% with respect to 2010-2011.

The number of French students studying in Romania grew from 680 in 2014-2015 to over 1200 in 2017-2018. As a consequence, the French government decided to ease the access of French students in French medical schools in order to avoid their migration abroad for studies. Romania is the favourite destination for French students. Most of the medical schools in Romania have study programmes in French. The students are also compelled to study Romanian because the graduation exam is held in Romanian. The annual fees are decided by each university and range from 3.150 to 6.000 EUR for the public universities.

²⁹ [*Recent trends in international migration of doctors, nurses and medical students* - © OECD 2019.](#)

³⁰ [*Recent trends in international migration of doctors, nurses and medical students* - © OECD 2019.](#)

³¹ [*Recent trends in international migration of doctors, nurses and medical students* - © OECD 2019.](#)

³² [*Recent trends in international migration of doctors, nurses and medical students* - © OECD 2019.](#)

Part of the income from tuition fees is used to offer scholarships to international medical students, while 5% are redirected to the Ministry of Education. Some medical schools have received additional scholarship funds for international medical students.

The medical university in Cluj-Napoca is offering a programme in French since 2000. In 2018-2019, it hosted more than 1.600 international students, including around 1.000 francophone students, of whom 870 were French nationals³³. Some of the French students, those with Romanian origins, were enrolled in the Romanian programme, but most of them were in the French programme, where they accounted for 80-90% of students. In the first semester of the academic year 2018-19, about 20% of the students in the French programme received merit-based scholarships ranging from EUR 1.000 to EUR 1.250 per month. The scholarship covers the monthly costs of living, including accommodation costs³⁴.

The University of Medicine in Iași also hosted around 700 French students in the same year³⁵. On the other hand, at the University of Medicine and Pharmacy in Târgu Mureș, the largest group of international students comes from Germany, followed by Italy and Sweden. At the University of Medicine and Pharmacy in Craiova, international students from Israel make up the largest group, followed by Greece.

Conclusions

Between 2015 and 2018, the Romanian health sector experienced the lessening of some of the austerity measures implemented during the previous decade, which included a salary cut of 25% and budget constraints on hospital staffing. Doctors' salaries increased in several stages since 2015, and for some medical specialties the salaries doubled in 2018. The Romanian Ministry of Health also embarked on an effort to develop a national registry of health professionals based on data available in professional colleges. The general objective of the registry is to improve the management of data pertaining to health professionals in Romania in order to improve the evidence base for health workforce planning.

The OECD report identified as the main problem the lack of continuity in the government, which results in frequent changes in policy directions in the education and health sectors. The strategic document which guided the development of the Romanian health care

³³ [Recent trends in international migration of doctors, nurses and medical students - © OECD 2019.](#)

³⁴ [VIDÉO - La Roumanie : l'Eldorado des étudiants français en médecine \(rtl.fr\)](#) (Romania : the Eldorado of French students in medicine).

³⁵ [Vizita Ambasadorului Franței la UMF Iași | News UMF Iași](#) (The Visit of the French ambassador at the University of Medicine and Pharmacy in Iași).

system until 2020 was The National Health Strategy 2014-2020: Health for Prosperity³⁶. The document admitted as the main challenges the massive outflows and the geographic shortages of the human resources for health. These factors are jeopardising people's access to high-quality health care services.

In 2016, the National Action Plan for Human Resources for Health was developed. Its objectives were to improve human resources for health governance, consolidate data flows about health professionals for better planning and strengthen research efforts to generate evidence for policy making.

In 2017, the Human Resources for Health Centre was created by the Ministry of Health, with the aims of improving medical workforce planning and management as well as of facilitating the return of doctors who have left to practise abroad. However, the Centre was still not fully operational at the end of 2018. The Ministry also developed a national registry of health professionals based on data available in professional colleges. Its objective was to improve the management of data about health professionals in Romania.

Romanian authorities are trying to develop a strategy regarding the healthcare resources and the migration of the medical personnel, however until now the results have not been satisfactory.

We can sum up our main findings in the current working paper as follows:

1. There is a need to address the fact that, owing to poor working conditions and relatively low salaries, the country's health system is not attractive as a workplace to either domestic or international medical graduates.

2. Do any of the doctors who leave return to Romania? There is also a phenomenon of return, but it is quite modest for the time being. At the level of 2018, 150 doctors returned to Romania³⁷. Usually, the return is triggered by family reasons. However, if the doctors already have a family in France and if they have bought a property in France, they may be less inclined to return to Romania. So how can the Government determine them to return?

3. There is a need for an in-depth research on the determinants of return migration of doctors and for policy solutions at this level.

4. During the 1970s, the Indian economist Jagdish Bhagwati³⁸ argued for the introduction of a tax in order to cover the cost of education of highly skilled migrants. Their

³⁶ L. Onofrei, *The Romanian National Health Strategy 2014 – 2020: „Health for Prosperity”* – community medical assistance. International Journal of Integrated Care. 2014;14(5):None. DOI: <http://doi.org/10.5334/ijic.1566>.

³⁷ [More than 10,000 doctors from Romania relocated \(transylvanianow.com\)](http://transylvanianow.com).

³⁸ Jagdish N. Bhagwati (ed.), *Taxing the Brain Drain*, Vol. 1: A Proposal, Amsterdam: North-Holland, 1976

5. A retention strategy should coordinate the increase in wages with the improvement of medical equipment. Such a strategy should also be designed and implemented by the Romanian government and be treated as a strategic resource.

7. A reform of the insurance system that would improve the access to basic medical services should also be taken into account.

9. There is also a problem that needs to be addressed linked to the Romanian medical education which is does not focus primarily on the needs of the Romanian health system, but rather on those of the international labour market.

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